Older People: Improving Health and Social Care

Focus on the European Core Competences Framework

Bea L. Dijkman
Irma Mikkonen
Petrie F. Roodbol
Editors

Springer

Older People: Improving Health and Social Care

Bea L. Dijkman • Irma Mikkonen
Petrie F. Roodbol
Editors

Older People: Improving Health and Social Care

Focus on the European Core Competences Framework

Springer

Editors
Bea L. Dijkman
Centre of Expertise Healthy Ageing
Hanze University of Applied Sciences
Groningen
The Netherlands

Irma Mikkonen
School of Health Care
Savonia University of Applied Sciences
Kuopio
Finland

Petrie F. Roodbol
School of Nursing
Hanze University of Applied Sciences
Groningen
The Netherlands

ISBN 978-3-319-97609-9 ISBN 978-3-319-97610-5 (eBook)
https://doi.org/10.1007/978-3-319-97610-5

Library of Congress Control Number: 2018956796

© Springer Nature Switzerland AG 2019
This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.
The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Acknowledgement

This book is a spin-off from the ELLAN project. ELLAN stands for European Later Life Active Network. The ELLAN was a Lifelong Learning Programme project funded by the European Commission in the period 2013–2016. The project consortium included 26 higher education institutes from 25 countries all over Europe. The ELLAN project was coordinated by Savonia University of Applied Sciences, Unit of Health Care (Finland). We want to thank all the 26 partner organisations for their contribution in the research and development of the European Core Competences Framework for working with older people in health and social care.

Also, we want to thank all the authors and organisations that contributed to and supported the writing of this book. Special thanks goes to the Centre of Expertise Healthy Ageing from the Hanze University of Applied Sciences Groningen (The Netherlands), for their support and making this book possible.

Bea L. Dijkman
Irma Mikkonen
Petrie F. Roodbol

Contents

Introduction

1

Bea L. Dijkman, Evelyn J. Finnema, Petrie F. Roodbol, and Irma Mikkonen

1.1 Introduction

The demographic situation in Europe is changing rapidly. The proportion of older adults is rising, while the proportion of younger children is falling. For the first time in human history, there are about to be many places with more older people than young children. This change effects society intensively and also influences the health and social care systems. Older adults use far more health and social care services than do younger groups and will put increasing pressure on health and social care budgets and on the capacity of the health and social care workforce to deliver those services. Far out most of the health and social care professionals all over Europe will work with older people in different settings, at home, in the community, in hospitals or in long-term care settings. Dealing with the special needs of older people requires specific competences for health and social care professionals, as well as an integrated approach to health and social care. Are health and social care professionals prepared for this?

B. L. Dijkman (✉)
Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: b.l.dijkman@pl.hanze.nl

E. J. Finnema
Research Group Care and Wellbeing, NHL Stenden University of Applied Sciences, Leeuwarden, The Netherlands
e-mail: evelyn.finnema@nhl.nl

P. F. Roodbol
Research Group Nursing Diagnostics, School of Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: p.f.roodbol@pl.hanze.nl

I. Mikkonen
School of Health Care, Savonia University of Applied Sciences, Kuopio, Finland

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_1

Recently, in 2017, the World Health Organization mentioned in their report "10 Priorities towards a decade of Healthy Ageing" that the workforce, including formal health and social care providers and informal caregivers, is largely unprepared to deal with the needs of older people [1]. Many countries have to deal with workforce shortages in the health and social care sector, as well as a workforce that is ageing and poorly trained in basic geriatric and long-term care principles [2]. Also, research has found that many educational programmes lack adequate preparation for students in health and social care working with older people when it comes to the correct competences [3, 4]. What competences do you, as a health and social care professional, need in order to provide care and support for older people in our ageing societies? That is the main focus of this book. But first, let us have a look at the expectations health and social care professionals working with older people have to fulfil.

1.1.1 Health and Social Care Professionals Working with Older People

Today as a professional in the field of health and social care for older persons, you are expected to be an expert in your own profession. This can be, for example, nursing, physiotherapy, social work, dietician and many more. Besides your own speciality, you are also expected to be a generalist and know a lot about health and wellbeing of older persons in general. To be an expert and a generalist at the same time is often referred to as the "T-shaped professional". The vertical bar on the T represents the depth of related skills and expertise in a single field, whereas the horizontal bar stands for the more general skills and expertise and the ability to collaborate across disciplines with experts in other areas and to apply knowledge in areas of expertise other than your own. You are able to get an overview of the multifaceted issues and are able to look beyond your own profession.

As a health and social care professional, you have to be aware that the quality of your work begins and ends with the practitioner's approach to people and opt for humanity and common sense above protocols. Communication, coaching and empowerment are pivotal for person-centred care and support. Older people's perceptions of the quality of the health and social care they receive are highly dependent on the quality of their interactions with their health and social care professionals.

Given the threat of future shortages of professionals in health and social care, we need to make more use of the social network and families of older persons in providing care and support. Involving family and informal carers requires a different approach for many health and social care professionals. You are able to collaborate and connect with formal and informal caregivers. You have to be able to formulate goals in conjunction with the older people themselves and their families, with social networks and with communities and discuss how all can be involved to achieve these goals. Even more important is that the social network considerably contributes

to maintaining self-reliance and quality of life of older persons in different health and social care settings.

Older people, and especially frail old people, may have problems that interact with each other like cognitive restrictions, functional restrictions, psychosocial problems, multi-morbidity and social isolation. These problems require an integrated approach to health and social care. Providing integrated health and social care for older people with multiple health issues is complex. Numerous health and social care professionals may be involved with a single older person's care and support. Yet in many situations, there is a lack of coordination across care and service providers and different health and social care settings caused by organizational and traditional boundaries.

Social and health-care professionals working with older people often encounter situations where there is a need to act in a role of advocate related to health and wellbeing of older adults. Advocacy may be defined and take place on different levels from ethical and legal frameworks to practical activities. With support of professionals as advocates, the older population will have their voices heard and their health and well-being needs met.

Life-long learning is essential to become and stay a successful professional in our rapidly changing society. Therefore the "21st century skills" are advocated on a regular basis. Many of these skills are associated with digital information skills and deeper learning, which is based on mastering skills such as analytic reasoning, complex problem solving and teamwork. You keep your own knowledge and skills up to date by being a reflective practitioner who examines his/her own actions critically, by reading and assessing professional literature and by engaging in ongoing professional development. Research- and evidence-based practice are important for innovation and high-quality care and support. You are able to contribute to practical research, to organize support based on needs, to focus on improving services and to contribute to innovations needed. Also, e-health and technological solutions are crucial for establishing and maintaining high-quality care and support for older persons, now and in the future. But even more important is to realize that new approaches are of little use if they cannot be implemented in an effective, human and financially affordable way.

As a professional you take responsibility and be answerable and are aware of professional codes of conduct and last but not least you to treat older adults and their families with dignity and respect [2, 5–7].

Tailoring health and social care to older people's individual wishes and abilities will allow them to live with dignity as long as they possibly can. It will also improve health and social care professionals' job satisfaction and might give pride in your work. We can all benefit from learning more about the way older persons are coping with ageing and health issues. Once (future) health and social care professionals realize that care and support for older persons is as exciting, challenging and rewarding as the care contexts they traditionally favour, they will increasingly choose a career in the field of ageing.

1.1.2 European Core Competences Framework for Health and Social Care Professionals Working with Older People

This book highlights those competences you need to accomplish to be able to give the best possible person-centred care and support for the older person and his or her family. The book is based on the "European core competences framework for health and social care professionals working with older people" developed in international cooperation within the European Later Life Active Network (ELLAN). To identify the competences needed for all health and social care professionals in Europe, who work with older people, ELLAN conducted research and developed a verified competence framework. This "European core competences framework for health and social care professionals working with older people" (ECCF) describes roles and competences that students in health and social care programmes need to learn in order to provide good care and support for older people. The framework includes awareness of diversity and different cultural backgrounds. Within the ELLAN consortium, 26 universities and universities of applied sciences from 25 European countries collaborated in this research and development process.

1.1.3 The Book

The book is divided into two parts. The first part provides basic knowledge and understanding of the ageing society in Europe and the impact on the health and social care professionals working with older people. It describes the demographic changes in our societies, different perspectives on health and healthy ageing, most common problems older people experience with ageing and trends and developments in different care settings. The second part of the book describes the roles and competences needed for all health and social care professionals working with older people. These roles and competences are organized according to the seven roles of the European Core Competences Framework (ECCF). These are expert, communicator, collaborator, organizer, health and welfare advocate, scholar and professional. The seven roles are based on the widely used Canadian CanMEDS physician competency framework [8]. In each role of the ECCF, especially the issues specific for working with older people are highlighted. The competences described can be seen as a baseline for all health and social care professionals.

References

1. World Health Organization. 10 Priorities towards a decade of healthy ageing. 2017. http://www.who.int/ageing
2. Lambregts J, Grotendorst A, van Merwijk C. Bachelor of Nursing 2020, Een toekomstbestendig opleidingsprofiel 4.0. Houten: Bohn Stafleu van Loghum; 2015.
3. Baumbusch J, Dahlke S, Phinney A. Nursing students' knowledge and beliefs about care of older adults in a shifting context of nursing education. J Adv Nurs. 2012;68(11):2550–8.

4. Schuurmans MJ, Habes V, Strijbos MJ. Gerontologische en geriatrische inhoud van verpleegkunde opleidingen in Nederland. Amsterdam: Beleidsrapport ZonMw; 2011.
5. Westerlaken A. Voortrekkers in verandering. Den Haag: Hbo-raad; 2013.
6. Meurs P. De professional maakt het verschil. Tijdschrift gezondheidswet. 2017;95:47–9.
7. Onderwijsraad. Meer innovatieve professionals. Den Haag; 2014.
8. http://www.royalcollege.ca/rcsite/canmeds-frameworks-e (1996, updated 2005 and 2015).

Part I

Trends and Developments

Healthy Ageing: Challenges and Opportunities of Demographic and Societal Transitions

2

Erik Buskens, Tobias C. Vogt, Aart C. Liefbroer, Menno S. A. Reijneveld, Ute Bultmann, Kène C. J. I. M. Henkens, J. Han de Ruiter, and Sophia E. J. A. de Rooij

2.1 Global Demographic Trends

Humans around the globe are getting older and older. Life expectancy or the average length of life is increasing in most parts of the world. This development is not new but has been ongoing for many decades. Since the mid-nineteenth century, advantaged populations, i.e. the global leaders in life expectancy, have witnessed an increase of 2.5 additional life years per decade. There were several claims that the advances in life expectancy that were observed in the past will come to an end and that humans are approaching an upper limit. However, again and again, all of these

E. Buskens (✉)
Department of Epidemiology, University of Groningen, Groningen, The Netherlands

Department of Operations Management and Operations Research, Faculty of Economics and Business, University of Groningen, Groningen, The Netherlands
e-mail: e.buskens@umcg.nl

T. C. Vogt
Department of Demography, Faculty of Spatial Sciences, Population Research Centre, University of Groningen, Groningen, The Netherlands
e-mail: t.c.vogt@rug.nl

A. C. Liefbroer
University Medical Center Groningen, Univerity of Groningen, Groningen, The Netherlands
Demography of Young Adults and Intergenerational Transmission at the Faculty of Social Sciences, VU University Amsterdam, Amsterdam, The Netherlands
e-mail: a.c.liefbroer@umcg.nl

M. S. A. Reijneveld
Department of Health Sciences, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands
e-mail: s.a.reijneveld@umcg.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_2

U. Bultmann
Department of Health Sciences, Community and Occupational Medicine, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands
e-mail: u.bultmann@umcg.nl

K. C. J. I. M. Henkens
Department of Health Sciences, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Netherlands Interdisciplinary Demographic Institute (NIDI), The Hague, The Netherlands
e-mail: henkens@nidi.nl

J. H. de Ruiter
Center of Expertise Healthy Ageing, Hanze University of Applied Sciences Groningen, Groningen, The Netherlands
e-mail: j.h.de.ruiter@pl.hanze.nl

S. E. J. A. de Rooij
University Center of Geriatric Medicine, University Medical Center Groningen, Groningen, The Netherlands
e-mail: s.e.j.a.de.rooij@umcg.nl

limits have been broken, and there is no indication that life expectancy levels will reach an upper ceiling in the near future [1]. Presently, the highest life expectancy in the world is observed among Japanese women. In 2014 they could expect to live on average 86.8 years [2].

The remarkable success of constantly increasing lengths of life is not restricted to high-income countries such as Japan. Also, people in low-income and in sub-Saharan African countries can expect to live longer. Figure 2.1 exemplifies this trend for different regions of the world according to their level of economic development. It appears that average lengths of life have been increasing steadily for over half a century. There are periods when gains in life expectancies occur at a somewhat slower pace, like in the sub-Saharan African countries during the 1980s and 1990s. However, all regions follow a general upward trend. In the early 1950s, people living in sub-Saharan African and other low- or middle-income countries on average could expect to live a thus far typical number of 35–42 years. By that time populations in high-income countries already had reached a life expectancy at birth of around 63 years. By 2010–2015 life expectancies had risen further to 79 years in high-income countries, 70 years in middle-income countries and 57–60 years in low-income countries and countries south of the Sahara.

Despite these global gains, large differences in levels of life expectancy between wealthier and poorer regions of the world remain. On average citizens of high-income countries can expect to live over 20 years longer than citizens in economically less successful countries. Interestingly, sizable disparities occur in the average lengths of life between and even within high-income countries.

Europeans across the continent can expect to live to very different ages. Figure 2.2 shows a clear divide in life expectancies between Western and Eastern European countries. In 2010–2015, men and women living in the European champions of life expectancy, Switzerland, Spain and Italy, could expect to live over 82.3 years.

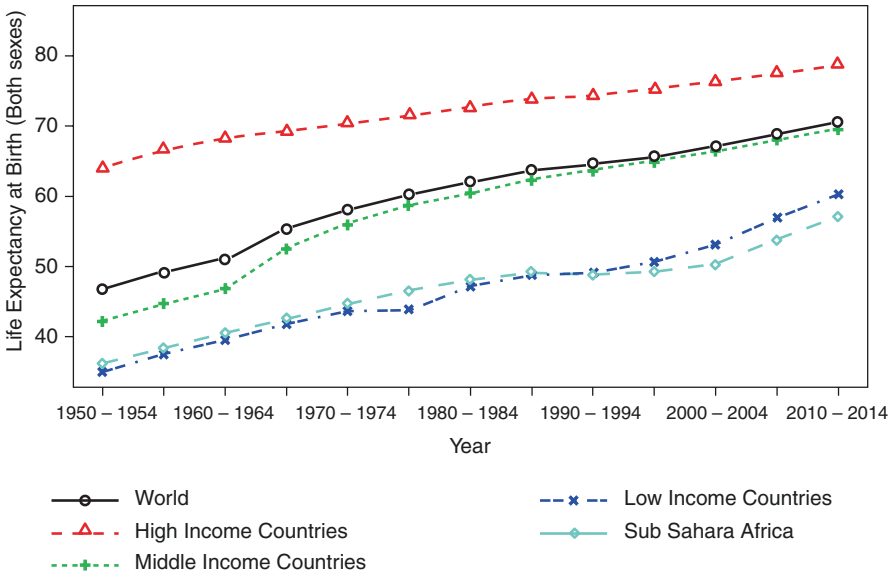

Fig. 2.1 Trends in life expectancy in different regions of the world. Source: UN World Population Prospects 2017 revision (own illustration)

Conversely, those living in Russia or Ukraine could expect to live only up to the age of 70. The gradient in European life expectancy is getting smaller for Central and Eastern European countries which joined the European Union in 2004. They are still lagging behind the Western European level but have made larger progress in gaining additional years of life since the fall of the Iron Curtain in 1990 [3].

In general, the European patterns in life expectancy are a result of different developments that took place during the last century. Until the 1950s, Europe witnessed a gradual increase in life expectancy at birth from 50 to 70 years. According to the epidemiological transition theory, this historical increase in life expectancy at birth may be attributed to a shift away from infectious diseases towards non-communicable diseases such as cancer and cardiovascular diseases [4]. Major drivers for this transition were improvements in nutrition and public sanitation, rising living standards and the widespread use of vaccinations and antibiotics. As a result premature mortality (deaths among younger age groups) was substantially reduced [5]. The continued increases in life expectancy observed in the second half of the twentieth century are largely attributable to further increase in life expectancy from middle and old age onwards. Particularly Western countries succeeded in reducing cardiovascular mortality as the prime cause of death. These further improvements were facilitated by socio-economic advancements, medical progress and changes in lifestyle factors such as smoking and alcohol consumption [6]. In contrast, Eastern European countries faced difficulties in keeping up with these modernizations and increasingly fell behind Western Europe. Since the 1990s and early 2000s, these

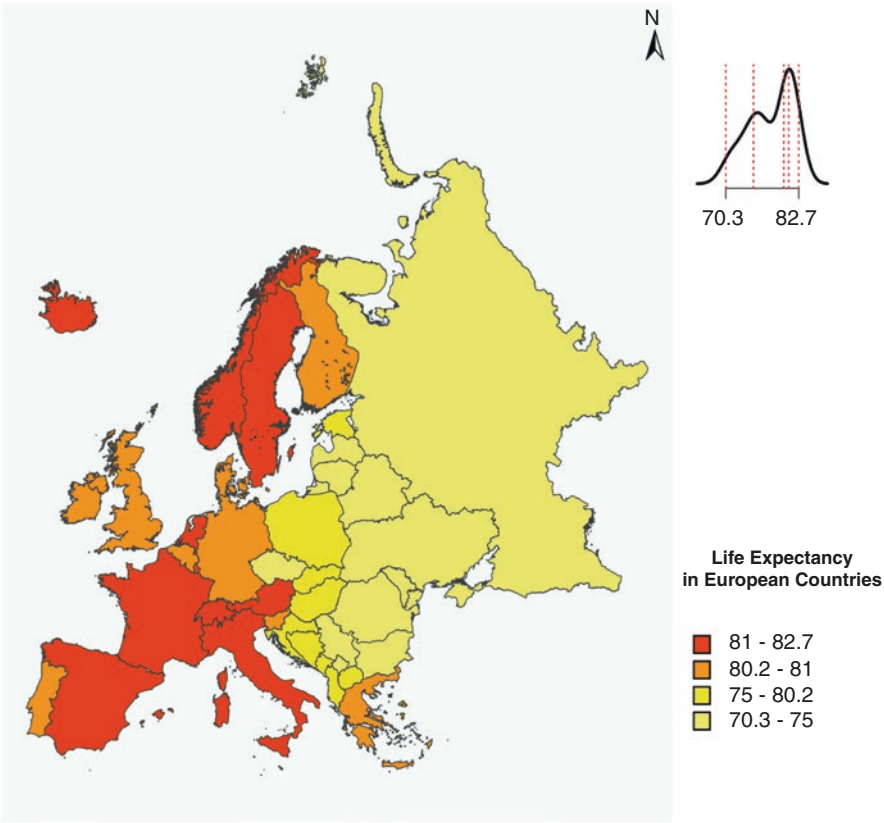

Fig. 2.2 Life expectancy in European countries

countries also succeed in reducing cardiovascular mortality, but a constant gap to Western European countries remains [7]. Success comes at a cost however. The general increase in average life expectancy is accompanied by an age-related increase in chronic diseases and cognitive impairments, i.e. healthspan has not quite kept up with lifespan [8, 9]. This phenomenon is most notable in Western Europe and other high-income countries where average length of lives goes beyond the age of 80.

Importantly, significant disparities in life expectancy are also observed within single states. The chance of living long and healthy lives is the resultant of individual and societal factors. At individual level, socio-economic status, i.e. individual education level and occupational class or income, is a major determinant of reaching old age in better health [10]. For example, lower educational attainment may reduce average life expectancy by up 1–2 years for women and 3–4 years for men [11]. Also, societal factors such as adequate healthcare, the general social security system and healthy living environments may reduce the risk of spending a large part of life with health problems or of dying prematurely. The growing disparities in

average length of life cannot be ascribed to a declining life expectancy among individuals with lower socio-economic status. They are in fact also gaining additional years of life but less so than those with higher socio-economic status [12]. Notably, these disadvantages are of societal concern as lower socio-economic status is also associated with an increasing gap between lifespan and healthspan, i.e. more life years are spent in bad health.

The improvements in average life expectancies during the last decades have led to a growing elderly population in Europe. Combined with low fertility levels in many European states, these increases have led to ageing of whole societies. Between 1950 and 2015, the median age of the European population has increased from 28.9 to 41.6 years. This means that half of the population in most European countries is over 40 years, and it is expected that this figure will increase further in the coming years. These changes in the age structure have a major impact on the sustainability of social security systems and the economic activity in most European societies. Southern and Eastern European countries are hit more severely by these changes as younger generations looking for employment and prosperity migrate to the West, and thus so-called double ageing occurs [13]. It thus becomes increasingly important that the majority of gained years of life are spent in good health and that Europeans age successfully.

2.2 A Life Course Perspective on (Healthy) Ageing

Ageing is a lifelong process. Health at older ages is the accumulated outcome of a myriad of health-related events and processes occurring over the course of people's lives. As alluded to above, whether or not people age healthy is socially stratified. People from more disadvantaged backgrounds live shorter and have poorer health than people from more advantaged backgrounds [14]. The life course perspective offers important insights to help us understand these differences.

As such the life course perspective captures what goes on in people's lives as a lifelong process and represents the ultimate determinant of later life health. In doing so, the perspective is informed by four general principles defined by Elder (1998), the founding father of the perspective [15, 16]. The four principles are (1) historical time and place, (2) timing of lives, (3) linked lives and (4) agency. The first three principles point to external factors that shape an individual's life course. It is shaped by where and when a person lives, by the moment in life that important events occur and by significant others (parents, partner, children, friends, etc.) that share parts of a person's life course. Agency, the fourth principle, implies that people's outcomes not just result from these external forces impinging on their lives but are actively shaped by their own actions to realize important goals in life. However, the extent to which people are able to exert life course agency varies and is in itself socially stratified [17].

In epidemiology, the life perspective has inspired the burgeoning field of life course epidemiology. It has been defined as 'the study of long-term effects on later health or disease risk of physical or social exposures during gestation, childhood,

adolescence, young adulthood and later adult life [18]'. This definition emphasizes that impacts on health can occur at many different moments in people's lives and have long-term consequences. Within life course epidemiology, a number of models have been developed to understand how early inequalities have long-term impacts. The two most important of these models are the critical period model and the accumulation of risk model [18, 19]. The first of these suggests that health inequalities are the outcomes of events occurring in specific critical periods. The best-known of these critical periods is gestation. Influences in utero may have long-term consequences [20, 21]. However, events and processes occurring in other life phases may also have a long-term impact on health outcomes. The accumulation of risk model suggests that inequalities may exacerbate as people age, because early negative events increase the risk of later negative events, leading initially small differences to increase over time [22, 23].

To understand socio-economic inequalities in health outcomes, it is important to add insights on the importance of resources to the life course perspective. The availability of resources is essential to the realization of main goals in life, such as physical and psychological well-being. In sociology, the importance of several types of resources—or forms of 'capital'—for people's life chances is a central topic of interest. At least three types of resources, such as economic, cultural and social, have been distinguished [24–26]. Economic resources refer to income and financial assets that people have at their disposal to improve their life chances, and cultural resources refer to lifestyles, norms and skills that they can use to improve their life chances. Social resources refer to contacts that people have available to improve their life chances. In psychology, a prominent idea is that resources are of prime importance for realizing well-being [27]: the more resources people have at their disposal, the more they will be able to realize goals that contribute to well-being. In addition to the types of resources stressed in sociological discourse, psychologists emphasize the importance of personal resources—such as self-esteem, coping strategies and planning competence—to realize these goals [28, 29]. Socio-economic inequalities in health can be viewed as resulting from differences between people with low and people with high social status in the general availability of these different types of resources. Resources do not only influence the likelihood that specific health problems will occur, but also what happens once health problems appear. Those with high social status are in a better position to react to health problems than those with low social status. The former, compared to the latter, have more economic resources that help them to pay for the best medical treatments available, have more cultural resources that allow them adapt their lifestyles and have more social resources that allow them to get better informed about their health condition. Thus, individuals with high socio-economic status have better access to the best treatments available and seek help at less advanced stages of disease, and they may be more compliant with medical advice.

A limitation of most existing research on socio-economic differences in healthy ageing is that these relationships have mostly been studied in a single societal context only. However, if one takes the life course principle of historical time and place seriously, it is clear that the strength of these links depends on the variability in

societal context. In general, one may assume that the strength of the relationships depends on the opportunities that the context offers to abate the adverse impact of economic and social deprivation. Contexts that offer good opportunities to people to escape situations of deprivation, like social security systems that offer financial support to people in financial jeopardy, educational systems that stimulate upward mobility, normative systems that do not stigmatize people with deviant behaviours and economic prosperity, are expected to weaken the links between socio-economic disadvantage and adverse health outcomes. How conducive contexts are to reducing socio-economic health differences not only varies between societies but clearly also within societies [30]. Thus, spatial variation in health outcomes is large within country contexts as well.

Studies on socio-economic health inequalities have shown that both people's own and their parental socio-economic position influence health outcomes. In the Western world, most of the second half of the twentieth century has been characterized by rapid upward mobility, with children generally ending up much higher up in the social scale than their parents [31]. This process has stimulated a decrease in social inequality. In the last decades, however, the massive educational expansion and upward social mobility have come to an end, and inequalities are again rising. Decreased social mobility suggests that more people are stuck in persistent disadvantage, which may deepen social inequalities in health outcomes between current and future cohorts. In addition, the increased migration flows of the last decades have created new inequalities in Western societies, i.e. between members of different ethnic groups. Health inequalities between ethnic groups clearly have a strong economic component, with people from some ethnic groups having less economic resources than the indigenous population. But, also ethnic differences in the availability of cultural and social resources matter, as migrants often differ in their cultural codes and in their access to health-related information and their knowledge of the functioning of the health system [32].

2.3 Well Begun Is Half Done

Youth, i.e. children and adolescents, in high-income countries has never been so healthy as in recent decades, and the same holds for most low- and middle-income countries as well, though some problems remain. In general, mortality has decreased significantly with major reductions regarding, e.g. infectious diseases, injuries and complications around birth. Youth also constitutes a major share of the world population, e.g. adolescents (ages 10–20 years) constitute one-fifth of it (i.e. 1.2 billion), and the achievement of a better health in this group has added tremendously to the worldwide increase in life expectancy. Major causes of the reduction of mortality may be attributed to a general improvement of living conditions like income, housing and nutrition. Also, a series of preventive measures like improved sanitation, clear drinking water and childhood vaccinations have contributed. In addition, better healthcare, in particular primary care, has added significantly to a general improvement of public health and youth public health in particular. Despite this major

improvement in youth health, problems like infectious diseases and complications around birth continue to constitute a major challenge, particularly in low-income countries. Because of that, a further reduction of childhood mortality is one of the global United Nations Sustainable Development Goals. Extensive and continuously updated information on demographics and health of youth can be found at the sites of the World Health Organization (www.who.org) and UNICEF, the United Nations Children's Fund (www.unicef.org). In that respect the 1000 days concept, i.e. from conception through a child's second birthday, has been recognized as a critical period with long-term impact on a child's cognitive and physical development [33]. Indeed a mother's health and well-being is a clear determinant of growth and development of her foetus and after birth of her child. Appropriate nutrition for the mother and for the child thus provides a window of opportunity with a profound impact. A child's growth and development, risk of disease in young and later life may be irreversibly determined by maternal malnutrition [34]. Foetal growth is directly related, as is infant growth, health and development. Stunting during this precarious developmental phase has been proven to be a major determinant of adult obesity and nutrition-related non-communicable diseases such as cancer, cardiovascular disease and possibly dementia. Obviously, also the mother's health and well-being depend on nutrition and access to adequate medical services and information.

A multisectoral nutrition effort may have lasting implications across the life cycle. Importantly, good health and reduced disease risk for mothers and children will render a robust effect on a society's prosperity. Indeed, good nutrition in the first 1000 days may be the cornerstone for health, development and prosperity generations to come. [http://thousanddays.org/about/ Accessed 15 Mar 2018.] The economic and financial arguments for proper nutrition are clear. Accumulating evidence reveals that (1) globally more than one million lives may be saved each year; (2) the human and economic burden of diseases such as tuberculosis, malaria and HIV and AIDS may be significantly reduced; (3) the risk for developing various non-communicable diseases such as diabetes and other chronic conditions later in life may be reduced; (4) individual's educational achievement and earning potential will improve; and (5) country's gross domestic product will increase by over 2–3% annually. Good or poor nutrition and other exposures in the first 1000 days lay the foundation for health, development and even prosperity of the next generation. This is very true at a global level but also remains opportune across the privileged and less privileged within a country, i.e. for socio-economically deprived individuals, communities and areas similar challenges remain.

A next phase of life with particular challenges is childhood. Psychosocial diseases and unhealthy behaviours have become more dominant as health risks for youth, partially due to the reduction in rates of physical disorders but probably also due to real increases. The increasing prevalence of attention-deficit hyperactivity disorder (ADHD) is exemplary. The disorder is characterized by problems in attention and concentration, and increased activity levels in a varying mix, and is typically diagnosed in young children before the age of 7 years. Other psychosocial disorders are typically diagnosed for the first time at older ages, e.g. depression or substance abuse typically occurs in adolescence. Population studies show that in

countries such as the USA and the Netherlands, about a half of all adolescents has satisfied the criteria for at least one psychiatric diagnosis by the age of 18 years [35, 36]. Since the diagnosis principally is lifelong, this has implications for societal functioning, which will be affected, especially in severe or recurrent disease, or if combined with other diagnoses. Attaining a lower or incomplete educational level as a result of emotional or behavioural problems has been shown to be one of the life course mechanisms leading to disadvantage [37].

Furthermore, the importance of unhealthy behaviours for youth health has increased during the last decades. Much attention has been raised for related outcomes such as overweight and obesity and problems related to (excessive) use of alcohol. Major drivers identified are societal features, i.e. an increased albeit skewed distributed wealth, increased availability of unhealthy food and sometimes decreasing opportunities for physical activity. Regarding overweight and obesity, rates have increased steadily during the preceding decades with some levelling off in some high-income countries and a continuing increase in other ones. In low and middle incomes, increases in wealth seem to be associated with steeply increasing obesity rates in many countries. Interestingly not all upcoming economies reveal this unhealthy trend, revealing a potential to curtail the disadvantageous trends. Regarding adolescent alcohol use, policies limiting adolescent access and public opinions on adolescent alcohol use vary considerably between countries. Importantly, alcohol restriction policies seem to be associated with higher rates of excessive use and associated problems like violence and accidents. Experiences in some countries like the Netherlands have, however, shown that actively influencing access and public opinion may well reduce adolescent use. Generally speaking, the same holds for other health-related behaviours, such as tobacco smoking, and safe sexual behaviour. The importance of childhood and adolescence in shaping these health behaviours cannot be exaggerated since patterns persist in the further life course. Indeed adverse outcomes in youth like obesity have proven to be very hard to reverse in later life.

An issue only emerging with the advances in medical treatment is chronic disorders among youth, which have for some time been increasing and have changed in nature. First improved survival in case of previously lethal conditions such as very early preterm birth and childhood cancer has contributed. Regarding very early preterm birth, the survival of infants born after 22 or 23 weeks of gestation is now considerable, whereas in the past most would have expired soon after birth. However, rates of various developmental problems, problems due to underdeveloped lungs and other internal organs, are considerable and frequently persist, having lifelong consequences. Similarly, survival after childhood cancers like leukaemia and childhood brain tumours has increased significantly too. Survivors, however, frequently have or develop chronic conditions and disabilities, partially due to the disease but also due to (adjuvant) treatments comprising aggressive cytostatics and radiation. Second, the types of chronic conditions in youth may also change due to new possibilities in prevention and care. For example, prenatal screening and selective abortion lead to reductions in rates of a number of congenital anomalies and disorders. Also, extended metabolic screening immediately after birth greatly improved

lifespan and health for the affected children. A condition like congenital hypothyroidism remains a classic example: without early treatment, severe intellectual retardation will develop, whereas with early treatment lifelong prognosis is quite favourable. And third, the major improvements in neonatal care have not only led to a better survival of the very early preterm born but also to better outcomes for those born at somewhat higher gestational ages, e.g. 26 weeks. For them, morbidity due to the aftermath of preterm delivery and early postnatal complication has considerably improved. Ophthalmic problems leading to blindness and pulmonary lesions increasing the likelihood of decreased lung function in later life have reduced or can be averted altogether. The full impact of these developments on the health of youth and of adults in future has yet to be determined.

Finally, several societal opportunities and also challenges have emerged affecting youth health and well-being. Clear trends observed in high-income countries are increasing rates of parental divorce, a sweeping increase of communication options through social media, increasing performance-based instead of descent-based career possibilities, generally more health-literate and better-informed users of care and increasing possibilities for personalized care. These trends to some extend also affect youth in low- and middle-income countries. Parental divorce is associated with increased rates of emotional and behavioural problems in youth. They are involved or part of a highly emotional process before and after divorce. Regarding the latter, the generally resulting decrease in family wealth adds further to the deleterious effects. Increasing communication options, e.g. various web-based communication platforms and the Internet in general, may have a range of effects. Deleterious and addictive effects of web-based gaming have been identified, and also web-based bullying including sexual assault is not uncommon. On the other hand, a wealth of new learning options and a virtually limitless access to health-relevant information can be found on the web. Likewise, the increasingly unconfined and performance-based career options for youth, young adults and in further life have similar mixed effects. On the one hand, there is increasing equity and access, and on the other hand there is an increasing focus on performance and meeting high expectations. The latter has been suggested to add to increasing rates of youth psychosocial problems up to burnout. Finally, parents and youth in general are increasingly better informed and critical users of health-related information and of healthcare. This offers growing possibilities in care selection and may result in better tailored care. Conversely, the challenges for providers of care may increase, and potentially inequities will be augmented as not all users will be equally informed and literate. Thus, the increasing societal opportunities and challenges are not equivocal yet will have a major impact on youth health and use of care, both instantaneous and in future. The balance may mostly turn out positive; however at the flip side, and in particular for the societally more vulnerable and disadvantaged groups, there are clear risks.

The increasing societal opportunities and challenges and the move of the youth health burden towards psychosocial and health-behaviour related problems also have implications for the organization of care, at least in high-income countries. It implies a move from physical to mental care, and also to social care, with the latter

traditionally being the domain of local authorities. Social care historically is strongly connected to the local community, to welfare and to educational services. As a result and partly in response to the trends in burden of disease observed, this has resulted in a transfer of governance for this type of care. Youth psychosocial care has become delegated to local government in many high-income countries, at least in Northern and Western Europe [38]. This restructuring has an inherent risk fragmentation and thus poses a challenge of balancing integration of youth social care and healthcare towards more personalized care while maintaining equity and efficacy. If successful it would add to the further improvement of the health, of youth now and in future across the life course. Presently, however the challenges dominate the agenda, integration and personalization appear extremely difficult to attain.

2.4 Tomorrow's Workforce

Having noted the demographic transition and challenges encountered in childhood and youth, it becomes clear that labour is fast becoming a scarce resource. This may partly be overcome by the 'fourth industrial revolution', where cyber networks come together with physical networks, to create new autonomous systems vastly reducing the need for human resources. Yet the latter as such may pose considerable challenges to the labour force [39]. Who will be able to keep up and meet the demand and how to support people are very relevant questions as yet unanswered. Clearly, improving the health of the working population will remain to be a major prerequisite for a sustainable and inclusive society. It is also a core objective of the Europe 2020 strategy of smart, sustainable and inclusive growth. In the Netherlands, almost 50% of all work disability claims of young workers (<35 years) is attributable to mental health problems, as is 50% of their long-term sickness absence. Today, starters in the labour market and young workers have to deal with a changed working life (e.g. more temporary work, flexible contracts and multiple jobs) and labour markets (e.g. more self-employment, 24/7 work cycle in global markets and the impact of the fourth industrial revolution). This evidently challenges mental health. Successful educational attainment (e.g. achievement of at least an upper secondary education) thus far has been associated with many favourable lifelong social economic outcomes, including occupational achievement and financial security. Mental health problems can negatively affect educational attainment and thus have adverse consequences during the entire life course [40–42]. Using 9-year follow-up data on the TRAILS cohort, we have recently shown that preadolescents' mental health problems and changes in these problems over time are strongly associated with low educational attainment by the age of 19 [43]. Especially adolescents whose mental health problems intensified were at greater risk of low educational attainment. In addition, we demonstrated that young adults with high-stable trajectories of mental health problems from ages 11 to 19 were at increased risk of adverse employment outcomes [44]. Mental health problems are important predictors for school dropout and failing to finalize secondary education, which in turn affects the likelihood of a successful transition from school to paid employment [45, 46].

Pathways to successful labour market participation and a healthy working life course are complex, probably bidirectional, and can only be fully understood from a life course perspective [47]. First, child and adolescent mental health problems may lead to poorer educational attainment and occupational outcomes, i.e. health selection. Second, low educational attainment may lead to mental health problems, i.e. social causation, occurring in particular in combination with (cumulative) adverse childhood conditions (e.g. socio-economic disadvantages or parental divorce) and lack of social support. Hardly any evidence is available on the relative importance of these routes in the pathways linking childhood mental health problems and labour market participation. Third, there is very little research to date investigating the impact of work on young adults' mental health. This regards both working conditions and the interaction between work and family life. Thus, to fully capture the complex and interdependent relationship between labour market participation and mental health, a life course perspective should be adopted.

Life course principles have already been applied to understand (developmental) health trajectories and socio-economic inequalities in health [48–52] but never so regarding the entrance to the labour market and the subsequent working life trajectories. An important aspect of (mental) health is that it is a determinant as well as resource and capability, i.e. with bidirectional associations, which subsequently shape working life trajectories. Adopting a life course perspective in work and health research involves understanding the key principles related to time, duration, intensity and place (context). Past and present exposures and experiences that have been or are shaped in a particular social, historical and/or cultural context will influence future health and labour market outcomes [47].

Current work and health research is fragmented and focuses on jobs, exposures, work organization or employment contracts [53]. Life course principles [50, 54] should be integrated into work and mental health research to overcome this fragmentation. Thus, novel working life trajectories of young adults may be built and linked to (mental) health considering family structure in childhood, adolescence and family formation in young adulthood. Constrained by static models of work and health when two or more work periods are considered along with one or more health state, the proposed integrated perspective recognizes a more dynamic working life in the twenty-first century world of work. Recognizing the reciprocal relationships between (mental) health and work over the life course challenges us to build even more dynamic models. For example, in young adulthood, family formation, another important life domain, often occurs simultaneously with building a work career [55] and cannot be neglected when looking at work and mental health from a life course perspective. Many studies have examined life course work-family trajectories [56], but more work is needed to link the available knowledge to the mental health of the young adults.

In addition, the focus on understanding the various contextual levels and the constituent influence of social actors on working life trajectories will help identify policies and interventions that can both reduce health risk and build health advantage, e.g. what are the contextual policies and interventions that will ameliorate the potential adverse health consequences of youth unemployment in later life [47]?

Understanding work not only as an exposure that increases or lessens (mental) health risk, but also as a life course experience that shapes life and is dependent on place and time, moves the research to policies and practices that will help maintain a healthy and productive workforce and enable active ageing at work and beyond.

2.5 Beyond (Economic) Participation

Previously, only once individuals were actually nearing the age of formal retirement the question of 'what's next' used to be posed. Early retirement may have been an option, but working longer or part-time and other types of participation were hardly ever if at all formally addressed. The retirement context in Western countries is, however, changing rapidly. Between the 1970s and 1990s, leaving the labour market before the official retirement age was common in most Western countries. However, to bear the costs of their ageing societies, increasingly this path was abandoned with a 180° turn. Nowadays, prolonging labour force participation has become a key objective of government policy in most of these countries. Many countries have undertaken pension reforms that improve the financial sustainability of public pension programmes by adjusting the public pension age to the increased life expectancy [42]. The imposition of restrictions on early retirement and increasing the public pension age has led to a sharp increase in employment rates among aged individuals in recent years. Eurostat statistics show that in the EU-27 the employment rate of males aged 60–64 increased from 38% in 2010 to 48% in 2016. For females the corresponding figures rose from 23% in 2010 to 34% in 2016. Increasing public pension ages is just one indicator of the changing retirement context. The increasing numbers of working retirees is another. On average, 11% of retirees between the age of 60 and 75 participated in paid work albeit with considerable variation across the investigated countries. For example, while working after retirement is quite exceptional in countries such as Spain (3%), Slovenia (3%), Poland (5%) and France (5%), it is relatively common among retirees in Estonia (22%), Sweden (21%), Switzerland (20%) and Denmark (14%) [57]. Recent trends indeed indicate that the nature of retirement has changed markedly, both in terms of timing and character over the past three decades [58]. Presently, there are no indications that a stable situation has been achieved, and the future will likely have similar changes in store. Of course, the precise nature of these changes remains unclear and offers the biggest challenge for policymakers and social scientists. The social and economic transformations regarding retirement are generally expected to be characterized by longer lives, greater uncertainty and unequal public pension rights and levels. Individuals may expect to have to assume greater labour market and savings risks over the course of our lives. All changes are likely to spill over to the retirement stage.

Two issues are believed to be particularly relevant in studying the changing retirement contexts. The first entails employers' adaptation to this changing reality, and the second obviously is how employees deal with the prospect of careers that may be considerably longer than previously envisioned. Employers are key players

in defining opportunities and barriers for retirement as well as for working longer. As a result, the success of policies aimed at delaying retirement is to a large extent dependent on the impact these have on employers and their pertaining actions and attitudes. During the past few decades, researchers from various disciplines have generated insights that can be summarized by saying that employers are lukewarm when it comes to hiring and retaining older workers [59–61]. This is an attitude that appears determined by the perception that an ageing work staff leads to an increasing gap between labour costs and productivity, i.e. high last wages and relatively low work output [62]. Despite pleas for 'sustainable' ageing in organizations, in practice most employers remain passive and hesitant when it comes to designing policies to stimulate and facilitate longer working lives. A key question for the near future is whether employer behaviours change in response to retirement reforms, i.e. follow the intentions of policymakers or remain reluctant. Can legislative changes enhance employers' investments in training and development of their ageing staff? Or do employers seek for alternative ways to lay off older workers when they feel there is a need for downsizing or rejuvenation of staff. In addition emerging topics relate to the successful and unsuccessful human resource (HR) policies for older workers. By examining both good and bad management practices, one might hope to distil evidence-based human resource management (HRM) that supports healthy and successful ageing in the workplace. An important question is why organizations differ so widely in their responses to an ageing workforce. Some insights into this question have been gained through employer surveys [63]. However, it is important to go beyond descriptive studies that use mainly sociodemographic predictors. A more refined analysis, including values and norms of the organizational culture and climate would be required. Looking at such factors would greatly enhance our understanding of employers' strategies.

A second topic of interest refers to the way older and younger workers deal with the prospect of a continuously increasing retirement age. While many governments are reluctant in implementing reforms fearing electoral backlash of voters who are against increasing retirement ages, others, such as the Netherlands, have been very successful in raising the public pension age. The psychological and social impact of these reforms are often considered of secondary importance. However, this neglect may have direct and indirect repercussions that spill over to the economic domain. In this respect two issues seem particularly relevant. The first issue is how older workers adjust to sudden policy changes that induce them to work longer. Empirical research has consistently shown that a lack of control over the retirement transition is among the most powerful predictors of reduced well-being and retirement adjustment problems. There is some evidence that for many, adjustment to working longer is not an easy process [64]. Many older workers seem to struggle with feelings of uncertainty and worry whether they are physically and mentally able to work till retirement age [65]. For adults around retirement age, poor adjustment may have negative consequences for well-being and performance at work. Mid-career adults are expected to take a more active stand in their career in terms of continuous training and development and job mobility, anticipating a much higher age of retirement than for previous generations. The second issue is how retirement reforms interact with other social

policies. In many countries, there has been a fundamental reorganization of the relationship between formal publicly funded care and informal care by relatives and relevant others. Shifts from professionals to volunteers are observed across national contexts and in various types of public services, particularly in long-term care and social work [66]. As a result, a growing number of workers in their 60s will experience conflicting demands tied to work and family roles. Some activities such as volunteering may increase human capital or social resources, which subsequently facilitate workforce opportunities, while others such as caring may reduce these opportunities due to time constraints and limited access to new networks [67]. More evidence is needed about the impact of extended working life on informal caregiving, volunteering and other forms of civic engagement and vice versa. A better understanding of the frictions between requirements to work longer and the obligations individuals experience in their social network will enable better policy development.

2.6 Participation in Caring

Remarkably, the inference regarding balancing various participatory activities, among which highly regarded caring for spouses, parents, children or relevant others, contrasts sharply with many countries' policies factually bringing down the welfare state. On the one hand, policymakers maintain a fundamental presumption that caring tasks may be delegated to citizens themselves and their social networks, while at the same time there is no formal policy and there are no resources enabling citizens to taken on caring responsibilities. Meanwhile there also is a broad recognition of an increasing shortage on the labour market and thus production capacity. Apart from Scandinavia, no country seems to have developed adequate social policies enabling or supporting citizens to combine participation in the formal economy with caregiving. For instance, how can young fathers assume the care for their new-born and partner if they are expected to return to work within a couple of days and make a living for their family? Apparently, Scandinavia and Germany have implemented more generous policies, highly valued by their citizens. Similarly, ageing societies clearly have an increasing demand for (chronic) care, again necessitating elementary changes in thinking about societal participation and distribution of income.

In this section we focus and consider informal care on three levels. First we look at the macro level: a brief overview of the concept of informal care and the situation in Europe. Then we look at the meso level: how is care organized regionally or for specific groups? And, finally, the micro level: what do we see in and around individual relationships and networks when it comes to informal care?

We will start by considering the concept of informal care. Informal care always involves help, care and support from a person's family and friends, e.g. parents, children, other family members, relations, neighbours and friends [68]. The Dutch government defines informal care as follows: Informal care is unpaid and often long-term care for sick family members or friends. Besides providing care, informal care may also involve help with everyday activities. There are a wealth of definitions, all of which include terms such as 'voluntary', 'family and friends', and 'unpaid'.

2.6.1 Macro Level: Europe and Informal Care

Verbakel et al. (2017) conducted a major European survey among 28,000 people. The survey looked at the prevalence of informal care, the characteristics of the people who provide this informal care and the impact of providing informal care on mental well-being [69]. In 20 European countries, an average of 34.3% of the population are informal caregivers, and 7.6% are intensive informal caregivers, i.e. they provide at least 11 h of care and support per week. Typical characteristics of informal caregivers are the following: female sex, aged between 50 and 59, not formally employed and most of whom are religious. Importantly, informal caregivers, particularly intensive informal caregivers, had a lower mental well-being than formal caregivers. Furthermore, given the shortages in the labour market and general job uncertainty, this group may also experience a certain amount of pressure to stay within or re-enter the labour market. A further source of stress may be the fact that informal caregivers are generally not well prepared, trained or educated to meet the increasingly complex care demands. Respite care, training and counselling opportunities for this group should be developed and communicated to the group, especially since they are expected to provide an important and complimentary source of support for the healthcare system as a whole.

Importantly, the OECD [70] in an 2011 overview predicted that the number of people currently providing informal care will decrease in forthcoming decades, while those requiring informal care will increase. This will put further pressure on informal caregivers, and the risk of stress or even burnout will therefore increase (see below).

2.6.2 Meso Level: Regional Support for Informal Care

At meso level, we foresee that local, regional and national authorities must take responsibility. At regional level, local authorities' and health insurers' agreements over the procurement of care may be improved to support informal caregivers. Indeed, it is important to consider the overall care process and the part fulfilled by informal caregivers. Integral care requires effective coordination between professional help and support in the form of informal care. In the meantime, the care provided and quality thereof should meet the wishes and needs of the recipient or client.

Accordingly, investing in and building up the 'voluntary' infrastructure by local authorities and other organizations would appear to be a prerequisite. This will not only enhance the relationship between client and informal caregiver but also the relationship between informal caregivers involved. Three aspects local authorities could and probably should address may be discerned. Firstly, there is an executive role ensuring that the informal caregiver is involved in the communication between the professional and the client. Secondly, as mentioned earlier, local authorities are the purchasers of care, which should preferably comprise support for informal caregivers. Thirdly, the responsibility of provision of adequate care, i.e. timely and of good quality, should be preserved by local authorities. Mobilizing and encouraging

local organizations to invest in support for informal caregivers may be part of this responsibility.

2.6.3 Micro Level: Providing the Right Support for Informal Caregivers

An important aspect of informal caregiving is the nature of the relationship between client and informal caregiver. The recipient of informal care could be a spouse, child, parent, friend or neighbour, which as such has implications for their relationship as well as the type of care that people are willing to provide or receive. Additionally, we know that providing informal care may put stress on the caregiver. Partly, this may be due to time constraints, e.g. withholding caregivers from self-development or training. Also, informal caregivers may also suffer from physical stress wearing them out, which ultimately may be detrimental to their health. Taking into account resilience would thus seem important, which subsequently relates to the age of informal caregivers. A partner's resilience, i.e. generally older than children, may be put to the test more, and they generally are involved 24/7. Also, there can also be role confusion, which puts social roles as friend, partner, etc. under pressure. Finally, it is important to realize that apart from the gratifying effect of caring for a loved one, informal care may also cause emotional stress. There is a good reason why the score for mental well-being generally is lower among informal caregivers than it is among those who do not take on such tasks. A recent source signalled that roughly one in six informal caregivers provide care for more than 8 h a week [71]. Of these, half a million have been providing this care for a long period of time. The risk perceived and associated with informal caregiving increases when the care is long term and/or intensive and if the informal caregivers provide a wide range of support. Apparently, 10% of all informal caregivers (more than four million in the Netherlands) are highly stressed. Thus, burnout may be a real threat among informal caregivers. So-called respite care to partly alleviate the perceived burden was suggested in this context. Respite care temporarily or completely takes over caring tasks usually provided by an informal caregiver to give him or her a break. Taking advantage of respite care at an early stage may prevent informal caregivers from having a breakdown. The main reason why little use is currently made of respite care is lack of information and postulations regarding availability. To remove these barriers, GPs could pay attention to the possibility respite care, as should other healthcare and welfare organizations. Meanwhile, the factual availability in all settings and countries and the organization required to support informal caregivers and the effectiveness remain to be accurately determined.

To conclude, several factors have been identified which will ensure that informal caregivers and the care recipient are provided with appropriate support, also related to professional care. Access to adequate information on the services available, both in terms of prevention and in terms of 'warm' referrals along the care pathway, should be provided. Relevant services must be accessible, e.g. (adapted) transport must be provided. Next, the combination of informal and professional care must be

tailored to people's day-to-day patterns of care. Also, quality of care has to be upheld, i.e. it must be clear that recipients of the care, the clients, are satisfied and their needs are met. As to the insights informal caregivers have regarding the recipient, it is clear that they know best the situations where the recipient may feel insecure outside their own familiar environment. Caregivers are in the position to make sure that recipients have familiar items from home around them and recognize that adapting to a new situation will take time. Professionals should be aware and use the knowledge and experience of the informal caregiver and assimilate their values, lifestyle and care patterns. Within the context of the recipient, informal caregivers, in cooperation with professional organizations, should strive for a combination of different types of support, so the advantages and disadvantages may be negated thus keeping the 'system' going for longer.

2.7 Health and Social Care Navigation in the Future

The demographic transition presented in the beginning of this chapter has direct implications for health and social care as we know it today. Increasing proportions of elderly and below replacement fertility rates translate into an increasing demand for care and support, without the human resources to provide care the way we appreciate and have developed it [72]. A change is due.

All this against the background that at some point health status will impede (full) participation and that care may be required to compensate or alleviate losses in function. This obviously has been the case throughout human history, yet presently, health and social care and thinking about the goals of health and social care are changing rapidly. The patient no longer is the one that should have patience as the true meaning of the word in Latin is, but he or she is expected to remain in control, i.e. be the captain on his own boat. Incidental sailors may be signed on to keep the boat afloat or assist with navigating a life course. Importantly, however, lifestyle management, prevention, diagnostics, cure, chronic care and generally advancing life are largely considered an individual's own responsibility. The navigation may also be supported by the information on the internet and e-health tools. And befitting a true captain, he or she is supposed to know exactly how every tool works, while self-managing and self-assessing capabilities are beyond dispute. Clearly, this ideal of a highly literate and skilled captain is not omnipresent. Yet the recognition that individuals should be empowered and capable of self-management is increasingly common and will change the nature of health and social care provision.

The reasoning above, entirely realistic or not, has among others engendered an exponential growth of e-health and other tools. Advanced technology is available to young and older members of the community. Also, organizing and implementing technology-supported high-acuity care and support into the home environment create new and exciting opportunities to shift from a large, centralized health and social care system to a more tailor-made, more sophisticated and more value-based system. The future perspective is a system in which health and social care is more accessible, more affordable, more individual and even closer to home. In such a

system, hospitals more and more are becoming lean centres where medical hyper-specialist care is offered. Advanced technology such as PET imaging, genetic profiling, lasers and administration of expensive chemotherapeutic, biologic or immunologic agents requiring highly skilled professionals to operate will become the core business of hospitals within care networks.

Another significant development is that health delivery systems are increasingly aiming or expected to aim at keeping people healthy and out of the hospital, rather than simply 'mechanically' responding and providing diagnostic and therapeutic procedures. The conventional framework of health and social care will be turned upside down, with revenues being directed towards maintaining the health of populations, rather than towards just preventing or delaying illness and disability. Outcomes are no longer laboratory results or administrative ones such as length of stay or hospital mortality but are preferably delivery of value, disability-free intervals and time spent at home. In fact, satisfactory participation in its broadest denotation might become the preferred outcome to determine return on investment.

This move from traditional outcomes towards more generic well-being and participation in health and social care thinking will require health and social care professionals and physicians to take on new and quite different roles. The position as a coach with and for their clients, partly becoming the mere sailor, aiding individuals to cope will be required. Yet, also, given their expertise, they may become the pilots thinking in healthcare concepts and development of scenarios for diagnostic and therapeutic procedures. Clearly, all this requires colossal changes in the current organization of care and support and the health and social care education. Citizens and patients, however, are also given a new and much more responsible role in the system. One of the major issues will be their capacity and willingness to do so, because it would require a lot from them. Undoubtedly, there will always be individuals who never will attain the competencies required or over the course of their lives lose those competencies. Informal caregivers or relevant others may take on responsibility and have mandate, yet not always and under all circumstances will that suffice.

So, we currently have a non-sustainable health and social care system, and although we are becoming more and more aware of the fact that current care does not meet the needs of all, particularly for the heterogeneous group of older persons, we keep on producing 'one size fits all' guidelines. Current guidelines do not reflect quite variable needs resulting from multi-morbidity, disability, polypharmacy and stages of frailty. In addition, the final frontier of our health and social care may not be not curing cancer or cardiac diseases. We are already very well equipped to modify and increasingly treat these conditions as chronic disorders.

A very real and potentially attainable challenge will be delaying or preventing dementia. Currently the lifetime risk of developing dementia is at least 30%, and if one or two parents have dementia, this risk may be up to fourfold higher. In the field of Alzheimer's disease, attempts to develop a cure have been plentiful so far without any success. Conversely, already for over 20 years, we know that there is ample opportunity for prevention of dementia. Indeed, a considerable proportion is attributable to modifiable risk factors affecting the development of all forms of dementia. Accordingly, the real challenge is finding sustainable ways to endorse lifestyle

adaptation in high-risk persons. If successful that would yield enormous ‘return on investment’ at the end of life, 30, 40 and 50 years later. Importantly, in this case a highly appreciated bycatch would occur, i.e. a lifestyle preserving cognitive functioning would also immensely contribute to prevention of other chronic disorders such as diabetes, CVD, COPD and cancer. The seeming paradox of prevention will nevertheless also apply here. At population level the expected impact in terms of number of individuals for whom adverse outcomes will be averted will be significant, whereas for citizens having to change their lifestyle, their individual risk will not change so much. Currently, accurate prediction of a lifetime risk of disease is impossible and most likely never will be possible. Over the course of their life, many extraneous and unforeseen factors can and will change for individuals, thus precluding useful predictions.

Notwithstanding practical and possibly normative barriers (should lifestyle be optimized and regulated top-down), commercial and other private initiatives have emerged hoping to capitalize on ‘mobile health’. By connecting individuals with health and social care providers and real or virtual lifestyle coaches, investors anticipate on return on their investments through obligate prevention. Also, more and more health information is available through other information carriers like serious health games. Embedded in a playful educational environment, knowledge is increased, and individuals are seduced and triggered to make actual lifestyle changes, rather than having their fallacies with devastating long-term consequences pointed out. Such opportunities may be exploited for empowering older people to live healthy and stay healthy.

Healthy ageing may start as grown-up children of older parents watch their parents grow older and actually learn from their struggle with health and well-being and apply these insights at an earlier stage in their own life. Also, we should empower citizens and new health and social care professionals by redefining and refocusing on our health and social care system. Adequate definitions of meaningful outcomes have to be endorsed while not losing sight of value, especially in caring for our older clients. Ageing as individuals and society is not like strolling along an even path but typically is by trial and error towards a newly designed health and social care system and renewed health and social care thinking. The road will be long and winding but can be made accessible.

References

1. Oeppen J, Vaupel JW. Broken limits to life expectancy. Science. 2002;296(5570):1029–31.
2. Human Mortality Database (HMD). University of California, Berkeley and Max Planck Institute for Demographic Research, Rostock; 2017. www.mortality.org.
3. Leon DA. Trends in European life expectancy: a salutary view. Int J Epidemiol. 2011;40(2):271–7.
4. Omran AR. The epidemiologic transition theory revisited thirty years later. World Health Stat Q. 1998;51(2–4):99–119.
5. Cutler D, Deaton A, Lleras-Muney A. The determinants of mortality. J Econ Perspect. 2006;20(3):97–120.

6. Mackenbach JP. Convergence and divergence of life expectancy in Europe: a centennial view. Eur J Epidemiol. 2013;28(3):229–40.
7. Vallin J, Meslé F. Convergences and divergences in mortality: a new approach of health transition. Demogr Res. 2004;2:11–44.
8. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ. Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. Lancet. 2006;367(9524):1747–57.
9. Ferri CP, Prince M, Brayne C, Brodaty H, Fratiglioni L, Ganguli M, Hall K, Hasegawa K, Hendrie H, Huang Y, Jorm A. Global prevalence of dementia: a Delphi consensus study. Lancet. 2006;366(9503):2112–7.
10. Marmot M. Social determinants of health inequalities. Lancet. 2005;365(9464):1099–104.
11. Mäki N, Martikainen P, Eikemo T, Menvielle G, Lundberg O, Östergren O, Jasilionis D, Mackenbach JP. Educational differences in disability-free life expectancy: a comparative study of long-standing activity limitation in eight European countries. Soc Sci Med. 2013;94:1–8.
12. Tarkiainen L, Martikainen P, Laaksonen M, Valkonen T. Trends in life expectancy by income from 1988 to 2007: decomposition by age and cause of death. J Epidemiol Community Health. 2011;66(7):573–8.
13. Goldstein JR, Kluge F. Demographic pressures on European Unity. Popul Dev Rev. 2016;42(2):299–304.
14. Stringhini S, Carmeli C, Jokela M, Avendaño M, Muennig P, Florence Guida FR, d'Errico A, et al. Socioeconomic status and the 25 × 25 risk factors as determinants of premature mortality: a multicohort study and meta-analysis of 1·7 million men and women. Lancet. 2017;389:1229–37.
15. Elder GHJ. The life course as developmental theory. Child Dev. 1998;69(1):1–12.
16. Elder GHJ. Time, human agency, and social change: perspectives on the life course. Soc Psychol Q. 1994;57(1):4–15.
17. Hitlin S, Elder GH. Time, self, and the curiously abstract concept of agency. Sociol Theory. 2007;25(2):170–91.
18. Kuh D, Ben-Shlomo Y, Lynch J, Hallqvist J, Power C. Life course epidemiology. J Epidemiol Commun Health. 2003;57(10):778–83.
19. Ben-Shlomo Y, Cooper R, Kuh D. The last two decades of life course epidemiology, and its relevance for research on ageing. Int J Epidemiol. 2016;45(4):973–88.
20. Barker DJP. The fetal and infant origins of adult disease. Br Med J. 1990;301:1111.
21. Power C, Kuh D, Morton S. From developmental origins of adult disease to life course research on adult disease and aging: insights from birth cohort studies. Annu Rev Public Health. 2013;34(1):7–28.
22. Willson AE, Shuey KM, Elder JGH. Cumulative advantage processes as mechanisms of inequality in life course health. Am J Sociol. 2007;112(6):1886–924.
23. Dannefer D. Cumulative advantage/disadvantage and the life course: cross-fertilizing age and social science theory. J Gerontol Soc Sci. 2003;58B(6):S327–S37.
24. Keijer MG, Nagel I, Liefbroer AC. Effects of parental cultural and economic status on adolescents' life course preferences. Eur Sociol Rev. 2016;32(5):607–18.
25. Veenstra G. Social capital, SES and health: an individual-level analysis. Soc Sci Med. 2000;50(5):619–29.
26. Bourdieu P. La distinction. Paris: Minuit; 1979.
27. Diener E, Fujita F. Resources, personal strivings, and subjective well-being: a nomothetic and idiographic approach. J Pers Soc Psychol. 1995;68(5):926–35.
28. Clausen JS. Adolescent competence and the shaping of the life course. Am J Sociol. 1991;96(4):805–42.
29. Hobfoll SE. Social and psychological resources and adaptation. Rev Gen Psychol. 2002;6(4):307–24.
30. Klijs B, Kibele EUB, Ellwardt L, Zuidersma M, Stolk RP, Wittek RPM, et al. Neighborhood income and major depressive disorder in a large Dutch population: results from the LifeLines cohort study. BMC Public Health. 2016;16(1):773.

31. Hendrickx J, Ganzeboom HBG. Occupational status attainment in the Netherlands, 1920–1990 a multinomial logistic analysis. Eur Sociol Rev. 1998;14(4):387–403.
32. Betancourt JR, Green AR, Carrillo JE, Owusu Ananeh-Firempong I. Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. Public Health Rep. 2003;118(4):293–302.
33. Bhutta ZA, Das JK, Bahl R, et al. For the lancet every newborn interventions review group and the lancet every newborn study group. Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? Lancet. 2014;384:347.
34. de Boo HA, Harding JE. The developmental origins of adult disease (Barker) hypothesis. Aust N Z J Obstet Gynaecol. 2006;46(1):4–14.
35. Ormel J, Raven D, van Oort F, Hartman CA, Reijneveld SA, Veenstra R, Vollebergh WAM, Buitelaar J, Verhulst FC, Oldehinkel AJ. Mental health in Dutch adolescents: a TRAILS report on prevalence, severity, age of onset, continuity, and co-morbidity. Psychol Med. 2015;45:345–60.
36. Merikangas KR, He J, Burstein M, Swanson SA, Avenevoli S, Cui L, Benjet C, Georgiades K, Swendsen J. Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). J Am Acad Child Adol Psychiatry. 2010;49:980–9.
37. Veldman K. Mental health from a life course perspective: the transition from school to work. Groningen: Rijksuniversiteit Groningen; 2016.
38. Reijneveld SA. The return of community-based health and social care to local government: governance as a public health challenge [editorial]. Eur J Pub Health. 2017;27:1.
39. National Academies of Sciences, Engineering, and Medicine (US); Policy and Global Affairs (US); Government-University-Industry Research Roundtable (US). The fourth industrial revolution. Proceedings of a workshop—in brief. Washington, DC: National Academies Press (US); 2017. https://www.ncbi.nlm.nih.gov/books/NBK424911/
40. Ettner SL, Frank RG, Kessler RC. The impact of psychiatric disorders on labor market outcomes. 1997;51(1):64–81.
41. Adler DA, McLaughlin TJ, Rogers WH, Chang H, Lapitsky L, Lerner D. Job performance deficits due to depression. Am J Psychiatry. 2006;163(9):1569–76.
42. OECD. Sick on the job? Myths and realities about mental health and work. Paris: OECD; 2012.
43. Veldman K, Bultmann U, Stewart RE, Ormel J, Verhulst FC, Reijneveld SA. Mental health problems and educational attainment in adolescence: 9-year follow-up of the TRAILS study. PLoS One. 2014;9(7):e101751.
44. Veldman K, Reijneveld SA, Ortiz JA, Verhulst FC, Bultmann U. Mental health trajectories from childhood to young adulthood affect the educational and employment status of young adults: results from the TRAILS study. J Epidemiol Commun Health. 2015;69(6):588–93.
45. McLeod JD, Fettes DL. Trajectories of failure: the educational careers of children with mental health problems. Am J Sociol. 2007 Nov;113(3):653–701.
46. Winding TN, Andersen JH, Labriola M, Nohr EA. Initial non-participation and loss to follow-up in a Danish youth cohort: implications for relative risk estimates. J Epidemiol Commun Health. 2014;68(2):137–44.
47. Amick BC, McLeod CB, Bultmann U. Labor markets and health: an integrated life course perspective. Scand J Work Environ Health. 2016;42(4):346–53.
48. Pavalko EK, Caputo J. Social inequality and health across the life course. Am Behav Sci. 2013;57(8):1040–56.
49. Corna LM. A life course perspective on socioeconomic inequalities in health: a critical review of conceptual frameworks. Adv Life Course Res. 2013;18(2):150–9.
50. Kuh D, Ben-Shlomo Y, Lynch J, Hallqvist J, Power C. Life course epidemiology. J Epidemiol Commun Health. 2003;57:778–83.
51. Halfon N, Hochstein M. Life course health development: an integrated framework for developing health, policy, and research. Milbank Q. 2002;80(3):433–79.

52. Ben-Shlomo Y, Kuh D. A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives. Int J Epidemiol. 2002;31(2):285–93.
53. Berkman LF, Kawachi I, Theorell T. Working conditions and health. In: Berkman LF, Kawachi I, Glymour MM, editors. Social epidemiology. 2nd ed. New York, NY: Oxford University Press; 2014. p. 153–81.
54. Elder GH Jr, Kirkpatrick Johnson M, Crosnoe R. The emergence and development of life course theory. In: Mortimer JT, Shanahan MJ, editors. Handbook of the life course. New York, NY: Kluwer Academic/Plenum; 1997. p. 3–19.
55. Koelet S, de Valk H, Glorieux I, Laurijssen I, Willaert D. The timing of family commitments in the early work career: work-family trajectories of young adults in Flanders. Demogr Res. 2015;32(22):657–90.
56. Sabbath EL, Mejía-Guevara I, Noelke C, Berkman LF. The long-term mortality impact of combined job strain and family circumstances: a life course analysis of working American mothers. Soc Sci Med. 2015;146:111–9.
57. Dingemans E, Henkens K, van Solinge H. Working retirees in Europe: individual and societal determinants. Work Employ Soc. 2017;31:972. advance access.
58. Wang M. The Oxford handbook of retirement. New York: Oxford University Press; 2013.
59. Eschtruth AD, Sass SA, Aubry JP. Employers lukewarm about retaining older workers, work opportunities for older workers, series 10. Boston: Centre for Retirement Research, Boston College; 2007.
60. Munnell AH, Sass SA. Working longer: the solution to the retirement income challenge. Washington, DC: Brookings Institution Press; 2009.
61. Van Dalen HP, Henkens K, Schippers J. Dealing with older workers in Europe: a comparative survey of employers' attitudes and actions. J Eur Soc Policy. 2009;19(1):47–60. https://doi.org/10.1177/0958928708098523.
62. Conen WS, Henkens K, Schippers J. Employers' attitudes and actions towards the extension of working lives in Europe. Int J Manpow. 2012 Sep 7;33(6):648–65.
63. Van Dalen HP, Henkens K, Wang M. Recharging or retiring older workers? Uncovering the age-based strategies of European employers. The Gerontologist. 2015;55(5):814–24. https://doi.org/10.1093/geront/gnu048.
64. Fisher GG, Ryan LH, Sonnega A, Naudé MN. Job lock, work, and psychological well-being in the United States. Work Aging Retirement. 2016;2(3):345–58. https://doi.org/10.1093/workar/waw004.
65. Van Solinge H, Henkens K. Older workers' emotional reactions to rising retirement age: the case of the Netherlands. Work Aging Retirement. 2017. forthcoming.
66. Van Bochove M, Tonkens E, Verplanke L, Roggeveen S. Reconstructing the professional domain: boundary work of professionals and volunteers in the context of social service reform. Curr Sociol. 2016. First published online. https://doi.org/10.1177/0011392116677300.
67. Carr DC, Kail BL. The influence of unpaid work on the transition out of full-time paid work. Gerontologist. 2013;53(1):92–101.
68. Arber S, Ginn J. The meaning of informal care: gender and the contribution of elderly people. Ageing Soc. 1990;10(4):429–54. https://doi.org/10.1017/S0144686X00007406.
69. Verbakel E, Tamlagsrønning S, Winstone L, Fjær EL, Eikemo TA. Informal care in Europe: findings from the European social survey (2014) special module on the social determinants of health. Eur J Pub Health. 2017;27(suppl_1):90–5. https://doi.org/10.1093/eurpub/ckw229.
70. OECD. Help wanted? providing and paying for long-term care. 2011. https://www.oecd.org/els/health-systems/47884543.pdf.
71. Kruiswijk W, Nanninga K. Wat werkt bij mantelzorgondersteuning (providing the right support for informal caregivers). Utrecht: Movisie; 2017.
72. Yoon D. What we need to prepare for the fourth industrial revolution. Healthc Inform Res. 2017;23(2):75–6.

Most Common Health Issues of Older People

3

Panayota Sourtzi, Efstathia Sarla, Marja Äijö, Riitta Turjamaa, Hans J. S. M. Hobbelen, Linet F. Weening-Verbree, and Eeva-Riitta Ylinen

3.1 Factors Influencing Ageing

Ageing as a natural process is inevitable. Numerous changes take place during the life span that influence ageing; however, these changes are not identical in all individuals. In addition to that, many of these changes occur at the same time making description and understanding of this complex process very difficult. It is evident, by looking to different older people, that age does not cause the same alterations to everyone's appearance. People, for example, of the same age or gender look different in terms of ageing signs, such as wrinkles. Moreover, if a geriatric assessment takes place, findings related to health status will be different.

It is considered normal, for example, that the senses—especially eyesight and hearing—become weaker; however, this weakness in some individuals creates the

P. Sourtzi (✉) · E. Sarla
Department of Nursing, Sector of Public Health, School of Health Sciences, National and Kapodistrian University of Athens, Athens, Greece
e-mail: psourtzi@nurs.uoa.gr; esarla@nurs.uoa.gr

M. Äijö · R. Turjamaa · E.-R. Ylinen
School of Health Care, Savonia University of Applied Sciences, Kuopio, Finland
e-mail: marja.aijo@savonia.fi; riitta.turjamaa@savonia.fi; eeva-riitta.ylinen@savonia.fi

H. J. S. M. Hobbelen
Research Group Healthy Ageing, Allied Health Care and Nursing, Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences Groningen, Groningen, The Netherlands
e-mail: j.s.m.hobbelen@pl.hanze.nl

L. F. Weening-Verbree
School of Health Care Studies: Oral Hygiene/Center of Dentistry and Oral Hygiene, University Medical Center Groningen, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: l.f.weening-verbree@pl.hanze.nl; l.f.weening-verbree@umcg.nl

© Springer Nature Switzerland AG 2019
B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_3

need for glasses or a hearing device, while in others it will cause blindness or deafness. Although it is not clear why these differences exist, it is also evident that the way of life an individual followed during his/her life affects their ageing process. For example, hearing loss could be worse if the individual was working in a noisy environment. It is also well documented that if someone followed an unhealthy lifestyle during his/her earlier years, it would be more susceptible in acquiring certain chronic conditions that even if those do not shorten life expectancy, it is certain that they will deteriorate healthy life expectancy and quality of life. For example, diabetes or cardiovascular diseases are the most common health disorders that are caused largely by unhealthy habits.

The human race during the last century, among other achievements, succeeded also to increase its average life expectancy. That means that the concept of ageing today is not the same with that described a century ago, even though the process is similar. Population pyramids clearly show that the proportion of the population that achieved longevity a century ago was far lower than today [1]. At present, a large proportion—in many developed societies, one in five individuals are already over 65 years of age—of the population is over 65, while the majority of those do not age in the same way as the people of the same age a century ago [1]. The main reason for these differences is that way of life is different today than a century ago and the same applies to the environment we live in.

It is common to refer to ageing by years of age, and this is referred to as ***chronological ageing***. However, chronological age is not equivalent to biological age. ***Biological ageing*** refers to the changes that occur to the person's body. Biological changes happen at different points during the life span, some starting quite early in life. These changes in conjunction with other factors, such as inherited or familial disorders, unhealthy lifestyle, diseases and negative environmental influences, are possible to lead in much earlier biological ageing than the chronological one; but the opposite is also frequent [2–4].

In addition to that, if we examine the psychosocial factors that influence the individual, we add a third factor, ***psychological ageing***. This is related to individual's feelings and behaviour that portray the way that person ages. Psychological ageing interacts with biological ageing, and both can influence ageing either in a positive or negative way [2–4].

Functional ageing is another way of categorizing the process; this is based on the ability of the older person to realize the activities of daily living (ADLs) or instrumental activities of daily living (IADLs) in their everyday life. Functional ageing is also influenced by biological and/or psychological ageing, and therefore it can be observed that it is quite dissimilar to chronological ageing; we can observe a very old individual still going around in a bicycle for his/her everyday errands or a much younger older person needing assistance with even the simple ADLs [2–4].

Although ageing of the human body and functions start at some point in life—different times for different organs/systems—it is difficult to identify the specific point in time in which decisively we could say that old age starts. The age of 65 has been used in most developed countries to denote the division between adulthood and old age. That age was until recently in most European countries the retirement

age also. In order to be able to plan for health and social care services, we need to categorize older people in some way, and this is naturally being done by chronological age. The earlier categorization of older people as belonging in the third age that included all those over 65 years of age is not valid anymore; today older people are subdivided in [2]:

- Young old between 65 and 74 years
- Middle old between 75 and 84 years
- Older old over 85 years including centenarians (100 years and over)

The ageing process is influenced by many factors either intrinsic or extrinsic. Heredity, lifestyle habits, chronic diseases and frailty are the inherent factors that determine the way an individual ages. Because all these interact with each other, it is not possible to predict either longevity or healthy ageing. It is however well documented that healthy diet and exercise can prevent chronic and debilitating conditions such as diabetes or cardiovascular diseases [4].

In addition to intrinsic factors, there are many more that influence the process of ageing. These include the physical and social environment. The physical environment, on the one hand, refers to the housing conditions as well as the place or neighbourhood where the older person lives. If the conditions within the house are, for example, unsafe, there is a risk of falling. If the conditions outside the house, where the individual moves around, are not safe, there is risk of an accident. It is, therefore, necessary to assess the conditions of the physical environment and apply measures to make it safe according to the needs of the older person so that the ageing process is not altered drastically. The social environment, on the other hand, encompasses the family situation and the social network. Older people need to continue living within a well-organized social environment in order to carry on with their activities and relationships and maintain their independence, self-determination and self-respect, conditions that are essential for health ageing.

Mental health (see also Sect. 3.4) and emotional coping abilities play a decisive role in the ageing process as well. Factors that contribute to longer and healthier ageing include a happy and fulfilled life; having purpose in life, including faith; adapting to stressful situations; achieving control over one's life; and being empowered [4, 5].

Moreover, ageing differs according to ethnic origin, geographic location, gender, marital status, education, living circumstances, income and access to health and social care services. There is a large body of research providing evidence that these factors are influencing ageing [2–4, 6, 7].

- ***Ethnic origin*** can be examined in the view of people living in different continents/countries or within the same geographical area. Ethnic origin sometimes is interlinked with heredity and lifestyle. Ethnic origin is also interacting with other extrinsic factors such as geographical location, income, etc. However, ethnic specific influences that affect ageing either positively or negatively can be changed if the older person moves from his/her original place of living to a new

one. Of course in order to observe this change, it is necessary that the individual interacts with the new environment. In any case ethnic/cultural influences on ageing need to be examined in the specific framework that the older person resides and cannot be generalized.

- ***Gender*** is influencing ageing in different ways. In the developed world, women generally live longer than men, sometimes an average of 3–4 years more. In contrast, men that survive long enough have healthier life expectancy than women. When men get ill, they deteriorate faster than women. Women have more chronic diseases and very often suffer from more than one at the same time, leading to long life expectancy but with worse health-related quality of life in comparison to men. All these differences seem difficult to comprehend, but there are interpretations in the international literature that attempt to solve the confusion: biological differences between the genders, differences in chronic problems they face and lifestyle habits that are influenced by gender. For example, men are smoking more than women.
- ***Marital status*** in relation to ageing has been studied extensively and has produced some interesting results. It has been found that unmarried men are in worse health than married ones. The same does not apply to single women or women in general. It seems that it is more important to study the *living circumstances* which are interlinked with the family situation. There are still countries where families are extended, and this form of family organization can play an important role in the way one ages. For example, in an extended family or in families where generations have strong links, older members still feel useful, even if they are retired, because they may help with raising the children. In addition to that, in our times with the financial restraints, affecting almost all societies, older members of the family may contribute to the income of the extended family, and thus, everyone within the family takes advantage. Also, when the older person needs support and care, it is anticipated that a member of the family will take over the role of the caregiver. In most developed countries however, families have a much narrower form, and very often in our times, people live by themselves. In these cases there is a need that health and social care services are invited to take part of the family role, and if this does not exist, then the ageing process for these older individuals may be viewed grim.
- ***Education*** seems to have an important influence on how people age; it means that those with more education live longer with better quality of life. This could be interpreted on the ground that well-educated older people are able to seek appropriate health and social care services earlier, understand advice on managing disease better and adhere to treatment better. They are also able to understand the importance of health promotion including disease prevention and participate in relevant activities when these are offered. Education therefore can help alleviate some of the dismal consequences of ageing, and as the human race develops, perhaps ageing will be viewed in a more positive way in the future. Education is also related to income.
- ***Income*** is another significant determinant of how one ages. Individuals with lower income have generally worse health. This is more important for older

people who have restricted sources of income as they get older, and they have to rely on their pension as their sole income. Income also interacts with factors such as ethnic origin and gender, and there is a higher possibility that an immigrant woman will end up with much worse health in old age if she does not have either a family or well-organized health and social care services to support her.

- ***Living in a city or in a rural area***, or else the geographical area one lives, also influences ageing. Differences in ageing are observed between continents, between countries as well as between different areas of the same country. It is apparent that the biggest differences exist between high- and low-income countries. If we take the example of a developed country, living in an inner city is less advantageous for ageing than living in rural areas with lower stress levels and much cleaner environment when the older person does not have other factors to affect ageing. However, there is no straightforward way of assessing the influence of the place someone lives because this factor also interacts with all the other extrinsic factors.
- ***Social support*** positively influences all aspects of health and quality of life. Especially for older people, it is a factor that can prolong independence and healthy life expectancy. Social support could refer to family relationships, but very often refers to the wider social network of friends and the community that give the possibility to the older person to carry on his/her usual activities inside and outside their home. Social support helps the older person to feel loved, respected and useful; its lack can lead to social isolation, loneliness and mental health problems.
- ***Access to health and social care services*** finally can affect positively or negatively all the previous factors either intrinsic or extrinsic and consecutively the ageing process. If there is universal access to health and social care services, even if this refers to basic services, there is a greater possibility that the older person will get the support he/she needs to carry on independently. The opposite will happen if there is inequity either in accessibility or in health and social care service delivery. Access also plays an important role in supporting the caregivers of older people who may face health problems because of their role.

Although the vast majority of older people are able to live independently and carry out all or most of ADLs and IADLs without assistance, it is a fact that the small part of those that need assistance at various degrees pose a burden to themselves, their family/caregivers, as well as the health and social care services [8]. Frailty although it is independent of functioning is also a factor that affects health status. Various factors contribute to an older person becoming frail; one of this and perhaps the most important is the advancing age [8]. Although not inevitable, it is of major importance to apply as early as possible measures to avoid or postpone frailty (see Sect. 3.5).

Finally, ageing can be delayed or altered if appropriate health promotion interventions take place. The health promotion interventions should be appropriate for different groups of older people and should aim at ensuring that all groups have access to those; otherwise, instead of improving wellbeing, they will increase

inequalities. If in this we add volunteering of older people, then we will achieve a healthier life for all. Involvement of older people in every aspect of their life, either their everyday life or in their contact with health and social care service, should be considered as essential by all, especially the health and social care professionals.

3.2 Physical Decline and Functional Capacity

Before giving an overview of the main physical and mental problems of older people, let us have a closer look at ageing and physical decline in general.

The ageing process is a decline of functional reserve. It is a progressive decline of functions and processes in the body which lead to a decline in resistance against the dangers from outside world. This eventually leads to illness and death [9]. Functional capacity is determined by the person's intrinsic capacity, the combination of all individual's physical and mental capacities, and relevant environmental factors and the interaction between the two [10]. The ability to move the body, and to move from place to place, is key to functional independence and quality of life. During the course of a lifetime, particularly in old age, these fundamental competencies may become impaired. Healthy biological ageing is about maximizing function during growth and development and maintaining function and delaying decline for as long as possible.

From conception onwards and in roughly the 25 years after birth, humans build up their functional capacity to a personal maximum. For example, humans reach their maximum muscle mass, bone density, bone cartilage, nerve myelination, etc. around age 25. The height of this maximum is very important as with a higher maximum more reserve capacity is build. By staying active this maximum can be sustained for many years, but nevertheless in average, the rate of senescence between 30 and 70 years in healthy people ranges between 0.34 and 1.28% per year [11].

The WHO has developed a model to visualize how individuals' functional capabilities typically change over the life course [12] (see Fig. 3.1). Healthy ageing is about maintaining maximal functional capacity (blue line) for as long as possible through lifestyle choices, such as diet, exercise and social interaction. When functional capability declines and moves closer to the disability threshold, health and social care professionals might decide for different interventions to support the health, wellbeing and quality of life of the older person.

The alterations in normal biological responses seen in ageing lead to a wide variety of impaired functions that manifest in features we recognize as ageing. Kirkwood points out that the molecular and cellular mechanisms underlying ageing are multiple and complex and that we have to adopt system thinking to fully understand the decline of functions in ageing [13]. Ongoing investigations identifying, characterizing and targeting novel ageing-related mechanisms may serve to increase health span, lengthen life span and prevent musculoskeletal deterioration as we age [14].

If we look specifically to the musculoskeletal system, we see a decline in various tissues from bone, cartilage, discs and vasculature. The various tissues that

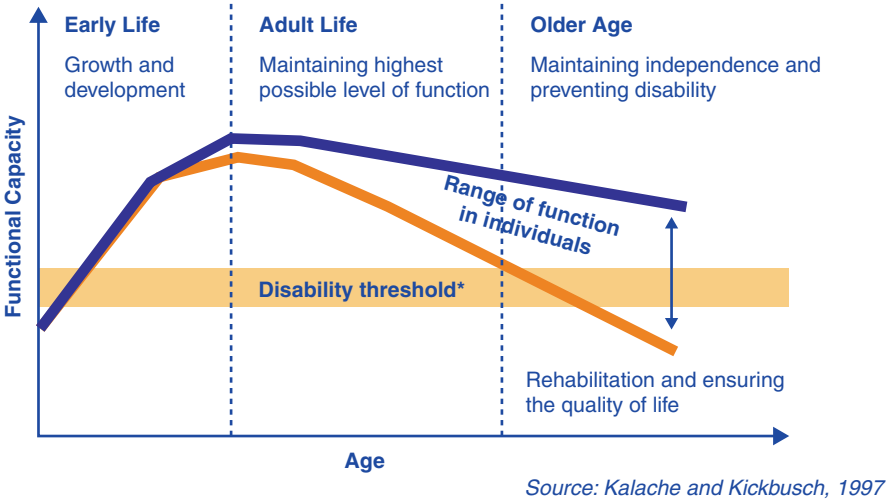

Fig. 3.1 Maintaining functional capacity over the course of life. (Reprinted from active ageing: a policy framework. World Health Organization. April 2002. http://www.who.int/ageing/pusblications/active_ageing/en/)

comprise the skeleton are each susceptible to ageing-related deterioration and have a reduced capacity to function adequately with increasing life span.

3.2.1 Decline in Muscle Mass and Sarcopenia

A decline of muscle mass results in a decline of muscle strength and force. More specific, the fast-twitch fibres (type II) are prone to decline resulting in a muscle that is still able to work long and steady yet not fast and quick. Furthermore, the pennation angle changes by which the force distribution is less optimal. The functional decline due to a decrease of muscle mass and muscle strength is often seen after a decrease of 40% and over showing that reserve capacity is key in primary prevention [15, 16].

Looking at the biomedical viewpoint of frailty by Fried, sarcopenia is a central theme in the vicious circle of functional decline [17]. With a large interindividual variance, the mean linear decline of muscle mass in humans is 0.7–1.5% per year [18, 19]. This decline is speeded up by disease and disuse (inactivity) [15, 16].

3.2.2 Balance and Falls

A decline in muscle mass and strength in older people is one of the causes of an increased fall risk. The loss of type II fast-twitch fibres causes a less optimal reaction on balance perturbations.

In general, the balance control systems can be divided in three distinct areas:

- The sensor system
- The central nervous system
- The motor system [20, 21]

In ageing a decline in all three systems is eminent, yet this decline is not in all systems equal and differs from person to person. Also, important to know is that these three systems interplay with each other so the decline in one system has an effect and leads simultaneously to a greater reliance on the other two.

The sensor system consists of vision, vestibular sense, proprioception and exteroception. All these sensors send their information to the central nervous system (CNS). The CNS interprets all the data and acts accordingly with the appropriate signals to the motor system.

The ageing process causes progressively physiological changes of the eye and *vision*, particular noticed after the age of 50. There is a decline in visual acuity, contrast and glare sensitivity, dark adaptation, accommodation and depth perception. Furthermore, due to the ageing process, older people are more susceptible to develop eye pathologies like cataract, glaucoma and macular degeneration. Reduced visual input causes misjudgement of distances and misinterpretation of spatial information like impaired depth perception increasing fall risk.

The *vestibular system* is also important for balance control as it detects the position, motion and acceleration of head movement. The vestibular system consists of a left and right vestibular organ behind both ears. The response on the information of the vestibular system is to stabilize the head and maintain upright position. In normal ageing there is a loss in vestibular function which can lead to postural instability and a broad-based gait pattern with unsteady turns. The ageing process normally leads to an equal decline of the left and right vestibular organ in contrast with pathology that most often causes asymmetrical differences.

In the execution of all movements, joint and mechanoreceptors send feedback to the brain about the acceleration, joint movement and angle and the position in space (*propriocepsis*). This information is vital for corrections and fine-tuning the movement to achieve the best result. The accuracy of these information as well as the speed of this feedback loop is also vital for speedy corrections when encountering obstacles. *Exteroception* is the sensitivity to stimuli outside the body.

Reaction time increases due to normal ageing with 25% from age 25 to age 60, and this slowing continues in an even faster rate after 60. This is due to a decrease of neurons and a decrease in myelination of the nerves. This can be seen in the central nervous system as well as in the peripheral nervous system. These changes cause a decrease in ascending and descending nerve signalling speed and slower processing speed of the brain. This leads to slower muscle contraction, inappropriate muscle force and/or incorrect movement directions and slower reaction times increasing fall risk [22].

3.2.3 Gait and Gait Speed

The integration of the sensor system, the central nervous system and the motor system is best seen in gait and gait speed. Changes in gait and in gait speed are very obvious changes of functional decline in ageing.

The walking speed in older people declines, with a shorter stride (step) length and wider walking base (stride width). Bohannon established norm values for walking speed in different age groups. He concluded the following: gait speed decreases with increased age; maximum gait speed declines more steeply than comfortable gait speed with increasing age. Absolute and height normalized gait speed values provided herein can serve as a basis for judgements about patient walking performance [23]. Comfortable walking speed declines in men from age 20 to 70 in average 5% (from 1.39 to 1.33 m/s) and in women 10% (from 1.4 to 1.27 m/s) [23]. If the gait speed falls below 1 m/s, there is an increased risk for adverse health outcomes [24]. Furthermore, in hospitalized older people and older people in long-term care, comfortable walking speed is often far below 1 m/s (average 0.58 m/s in clinical setting and 0.47 m/s in long-term care) [25, 26].

It is important to realize that a decline in walking speed and changes in gait parameters in older people are most often multifactorial. Older people often complain in this respect about dizziness and unstable gait [27]. In a German study, the 1-year prevalence of older people with dizziness severe enough to visit the doctor and with an impact on daily life activities was 20% in the age group of 60–70 years, 30% between 70 and 80 years and even up to 50% above 80 years [27]. The most common causes of dizziness were sensory deficits due to normal ageing (like bilateral vestibular failure) or due to ageing diseases (like polyneuropathy caused by, e.g. diabetes mellitus type II). Also, a loss of muscle mass and strength was identified as a causing factor of dizziness. Furthermore, it is important to acknowledge that medications (e.g. antihypertensive medication or sleep medication) are relevant factors in older people who experience dizziness and unstable gait.

3.3 Ageing and Physical Problems

Old age requires the acceptance of the new general physical condition, which brings many important limitations. Along with the physical decline exist many physical problems, which additionally decrease the functionality of the older person. As the person ages, we can expect gradual changes, at one's own pace. Older people may exhibit no changes in baseline function but may have decreased ability to adapt to stress. Various body systems lose reserve capacity with ageing at different rates.

The diseases in this age group have different characteristics compared to younger ages. They differ in prevalence and incidence, in clinical symptoms and signs, in diagnostic procedure, in therapeutic choices, in the outcomes and in rehabilitation. Adverse consequences of geriatric syndromes/conditions and diseases are repeated hospitalizations and a poor quality of life of older people.

However, the physical deterioration that occurs during ageing poses challenges (social and financial) such as the need for social integration, as well as the financial burden imposed on public health systems which is associated to age-related disease, disability and dependency [28].

In the former paragraph, we described functional decline related to decline of muscle mass and strength. Here we will explain the most common physical problems prevalent in older people.

3.3.1 Sensory Loss

As people age, they frequently experience a remarkable deterioration of their senses especially their vision and their hearing capacity. Finally, each sensory loss has unique effects on the quality of life of older people and their caregivers. In this way it becomes an emerging public health issue that will dramatically influence their lives. If they lose their vision, they are isolated from the environment, but if they lose their hearing, they are cut off the other people and this is extremely disappointing.

In order to design effective rehabilitation and support services, we not only need to increase our understanding of the influence of sensory loss on them, but we also need to create new care models that are able to recognize and respond specifically to this restriction and particularly to their psychosocial needs [29]. Furthermore, multidisciplinary collaboration is essential to advance our understanding of their loss, so its consequences can be ameliorated ensuring improved care and quality of life for older adults.

3.3.2 Diabetes

With the increase of the older population and changes in lifestyle, the prevalence of diabetes mellitus is projected to increase, especially among older people aged 75 years and over [30]. In this group, diabetes is a disease-causing disability due to its vascular complications and coexisting morbidities and also the increased prevalence of geriatric syndromes including cognitive and physical dysfunction. As a result diabetes triples the risk for institutionalization [31]. The management and care of older people with diabetes are challenging because of the complexity of the condition in old age, and the heterogeneous nature of groups of older people, which range from fit individuals living independently in the community to fully dependent people with multiple comorbidities living in care homes.

Although the burden of diabetes is often described in terms of its impact on working-age adults, diabetes in older adults is linked to higher mortality, reduced functional status and increased risk of institutionalization. Older adults with diabetes are at substantial risk for both acute and chronic microvascular and cardiovascular complications. Diabetes is the sixth most common cause of death among older adults. However, its role in mortality is probably understated, mostly because when

patients die of cardiovascular causes, diabetes is often not listed as a contributing cause of death [32].

Diabetes management in this age group should take into account their heterogeneous nature and complex needs. Older people with diabetes are twice as likely to develop dementia compared to those without the disease. Persistent hyperglycaemia and an increased prevalence of cerebrovascular disease may be contributing factors. Cognitive dysfunction affects the ability of people with diabetes to care of themselves, and unstable eating patterns that increase the risk of hypoglycaemia are common in patients with diabetes and dementia [33].

Diabetes in older people is associated with increased risk of functional impairment, falls, disability and frailty. Functional decline is associated with accomplishing activities of daily living, which may have an impact on performing diabetes-related self-care. Maintaining physical exercise and adequate nutrition plan is vital in delaying muscular loss and frailty. Nutritional guidelines should not be too restrictive but healthy and personalized to their preferences. Individuals should be allowed to choose freely their food options when diabetes treatment is being adjusted accordingly. The aims of nutritional choices are to maintain a healthy body weight and to avoid malnutrition [34].

The criteria for diagnosis of diabetes in older people are no different from those used in the younger population, but clinical presentation, diagnosis and assessment can be challenging. Owing to the high prevalence of multiple comorbidities, comprehensive geriatric assessment should be performed [35].

3.3.3 Cardiovascular Diseases

The term ‘cardiovascular diseases’ includes hypertension, coronary heart disease (CHD) and stroke, which increase remarkably with age. Cardiovascular diseases (CVD) account for 37% of all deaths in the EU; however, CVD mortality is now falling in most European countries, including Central and Eastern European countries, which saw considerable increases until the beginning of the twenty-first century [36]. Cardiovascular diseases according to WHO are estimated to represent the bulk of both mortality and morbidity, in developed and in many developing countries. By improving life expectancy, it is projected that over the next few years, the proportion of people aged 65 will increase further. With this disproportionate increase in population of older adults worldwide, the number of those with cardiovascular diseases will be significantly expanded.

The assessment of the cardiovascular function of patients of advanced age is extremely difficult, mainly due to the increased incidence of ischaemic heart disease in these patients. Coronary heart disease may occur either as recurrent episodes of myocardial ischaemia manifested as angina or dyspnoea at rest or in more severe manifestation such as a cardiac arrest where the total occlusion of a vessel results in acute myocardial infarction leading to necrosis of the cardiac muscle and scar formation. Acute coronary syndromes in the elderly lead to more complications and require a longer period of hospitalization for the patient. Silent episodes of

ischaemia, without nocturnal symptomatology of retrospective pain, occur more often at these ages, especially in people with diabetes mellitus [37].

CVD mortality rates vary with age, gender, socioeconomic status, ethnicity and geographical region. Mortality rates increase with age and are higher in men, in people of low socioeconomic status, in Central and Eastern Europe and in immigrants of South Asian origin. There are marked socioeconomic gradients in CVD morbidity and mortality within European countries, which are partially explained by socioeconomic differences in conventional risk factors, such as smoking, blood pressure (BP), blood cholesterol and glucose [38]. Moreover, when assessing and attempting to modify the risk of cardiovascular disease in older patients, we should consider incorporating the concept of frailty.

Current risk calculators have not been validated in people over 80 years of age making these inadequate for use in older patients [39]. Age alone cannot identify who will benefit from preventive strategies, except in situations when a dominant disease such as metastatic cancer, end-stage renal disease, end-stage dementia or end-stage heart failure is expected to lead to mortality within a year. Guidelines for treating common risk factors such as elevated cholesterol in the general population have generally not focused on adults over 75 or recognized their diversity in health status [40, 41]. In order to generate an individualized prescription for cardiovascular disease prevention for older adults, issues such as frailty, cognitive and functional status, disability and comorbidity must be considered.

Management of cardiovascular risk factors may lead to a healthier lifestyle and better outcomes. This includes lowering high blood pressure, managing lipids, controlling diabetes, taking aspirin for primary prevention, exercise and weight management, healthier nutrition and smoking cessation. Special considerations when managing cardiovascular risk in the older adult include polypharmacy, multimorbidity, quality of life and the patient's personal preferences. Additionally, social support provided by caregivers, including physicians, and shared decision-making can help patients maintain healthy habits and adhere to medical advice [42].

The heterogeneity of ageing rules out a one-size-fits-all recommendation for cardiovascular disease prevention and management of cardiovascular risk factors in older adults. There is significant overlap between cardiovascular risk status and frailty. Incorporating frailty into the creation of a cardiovascular risk prescription can aid in the development of an individualized care plan for the prevention of cardiovascular disease in the ageing population [43].

3.3.3.1 Hypertension

Hypertension is an important risk factor for cardiovascular morbidity and mortality, particularly in older people. It is a significant and often asymptomatic chronic disease, which requires control and persistent adherence to prescribed medication to reduce the risks of cardiovascular, cerebrovascular and renal disease.

Non pharmacological management of hypertension is often suggested in older people. Lifestyle modifications may be the only treatment necessary for preventing or even treating milder forms of hypertension. Weight reduction, sodium reduction, physical activity, moderate alcohol consumption and a proper nutrition should be

the key element of hypertension treatment in combination or not with active treatment.

Evidence indicates that several drugs are effective in preventing cardiovascular events, but usually no single drug is adequate to control blood pressure in older adults with hypertension. Individualization of the treatment should be guided by the presence of concomitant cardiovascular risk factors. The assessment of subclinical cardiovascular organ damage resulting to an earlier onset of antihypertensive therapy leads to a reduction of the total cardiovascular risk. For all those reasons, health professionals should treat hypertension in their patients regardless of their age [44].

3.3.4 Cancer

Nearly two thirds of cancer diagnoses occur in the over 65s and one third in people aged 75 and over. The most commonly diagnosed cancer types in men aged 75 and over in 2009–2011 in the UK were for prostate, lung, colorectal (bowel) and bladder. For women they were breast, colorectal, lung and pancreas [45].

Treatment of older oncology patients is an important part of everyday practice. It is necessary to know the peculiarities and abundance of the problems of this group in order to make therapeutic decisions for the administration of specific therapies that are used today such as chemotherapy, radiotherapy or molecular-targeted therapies. People of the same age have large heterogeneity in their performance status and their activity. Many people over the age of 65 continue to work and many times work similarly to younger people. It is necessary to divide older people into subgroups with an individualized assessment in order to decide the best type of treatment for their neoplastic disease [46].

Physical changes occur during ageing inevitably and in different ways in each person. The results of these changes in the human body and its function are not always obvious; thus, a reduced redundancy becomes apparent during stress. Ageing in the cardiovascular system, respiratory system and neurological system, endocrine changes and other changes in organs, lead to different pharmacokinetics, absorption, allocation, metabolism and excretion of the antineoplastic treatment.

Clinical assessment of an oncology patient is based on the assessment of his/her performance status, the assessment of comorbidity, cognitive status, nutritional status, social support and polypharmacy. The assessment of performance status of a geriatric oncology patient is an important prognostic factor for the development of the underlying neoplastic disease. It refers to the ability to perform the activities of daily living of these older oncology patients. As comorbidity we mean all coexisting physical and psychological problems that additionally coexist with the particular disease for which the patient is receiving medical treatment. The possible effect of comorbidity on survival and tolerance of, e.g. chemotherapy should be taken into account in assessing the risks or benefits of a treatment. Comorbidity adversely affects patients' ability to comply and tolerate chemotherapy [47].

Evaluation of mental status is particularly important prior to commencement of chemotherapy in older patients in order to ensure patient compliance with

medication and the ability to understand the need for assistance in the occurrence of side effects or toxicities of the antineoplastic treatment. The incidence of depression in older people with cancer is estimated between 3% and 25%. More psychologically vulnerable are those who lack social support [48]. Therefore, individualized assessment by the multidisciplinary team is necessary so that the patient is adequately supported.

3.3.5 Incontinence

Urinary incontinence is common in older people and can cause significant morbidity (such as falls and fractures) and functional impairment. Risk factors for urinary incontinence in older people include impaired mobility, falls, medications, depression, stroke, dementia, heart failure, faecal incontinence and constipation and obesity [49].

Evaluation of urinary incontinence in older people should be multifactorial, addressing comorbidity, functionality and medications as potential etiologic or contributing factors. The important first step is active screening for urinary incontinence, because 50% of affected persons do not communicate their symptoms to their caregivers. History should include incontinence onset, frequency, volume, timing and associated factors. Patients and caregivers should be asked about its impact on quality of life [50].

Specific treatment should be targeted to the patient's most bothersome symptoms. Lifestyle modifications may be helpful, and behavioural therapies like bladder training and pelvic muscle exercises could be effective. As the primary impact of incontinence is on quality of life, including self-concept, self-esteem and the burden of coping, older people should be encouraged to cope with these issues.

3.3.6 Infections

Older people are more vulnerable to infections due to their immune system decline. Older people may not respond well to therapy for infections and may also not present with 'typical signs' of infection, such as fever. Anatomical changes that occur in the upper airways, like reduced fissure epithelium function, cough reflex decrease and gastroesophageal reflux, may predispose an older person to an increased risk of upper respiratory tract infections.

3.3.6.1 Influenza and Respiratory Infections

Infections of the respiratory system are contributing significantly in increasing mortality and deteriorating quality of life of older people. Such populations must be viewed as a specific group of people at high risk, especially during winter flu epidemics. Influenza and respiratory syncytial virus (RSV) are the two most common viral infections that occur in older people. Pneumococcal disease is up to 14 times more common in people over the age of 70 years than in younger individuals [51].

Pneumococcus is a common pathogen in the nasopharynx and is most commonly associated with pneumonia. Community pneumonia continues to have a significant impact on older individuals, who are affected more frequently and with more severe consequences than younger populations. As the group of older people is increasing at twice the rate of the general population, a better understanding of the pathophysiology, microbiology, treatment and prevention of this common affliction is becoming apparent.

Antimicrobials are the cornerstone of therapy for pneumonia in any population, including older people. In addition, some nonantibiotic strategies may be important when treating pneumonia in older populations. In older patients, the pneumonia process often extends beyond the lung parenchyma, presenting as a systemic disease with higher severity of illness. This is supported by the finding that many older patients present with primarily non-pulmonary symptoms, such as mental status changes or renal dysfunction [52].

Although vaccination is the basis of prevention in older people, substantial underuse of pneumococcal and influenza vaccination exists in this vulnerable population [53]. In accordance with the current guidelines, all individuals older than 60 years of age should receive annual influenza vaccinations during the autumn and winter. In addition, any person aged over 65 years should receive pneumococcal vaccination. Although the link between pneumococcal vaccination and mortality has not been well established, vaccination has been demonstrated to reduce the risk of invasive disease in older people. It is estimated that almost a third of incidents in older people is linked to smoking; thus, smoking cessation is particularly important for preventing pneumonia.

3.3.6.2 Urinary Tract Infection

Urinary infection is one of the most commonly diagnosed infections in older adults. It is the most frequently diagnosed infection in long-term care residents [54, 55]. It is second only to respiratory infections in hospitalized patients and community-dwelling adults over the age of 65 years [56]. As populations age, the burden of this type of infection in older adults is expected to grow, making the need for improvement in prevention, diagnosis and management critical to improving the health of older adults.

Risk factors for developing symptomatic urinary infection in older adults are different to those in younger. Age-associated changes in immune function, exposure to nosocomial pathogens and an increasing number of comorbidities place older people at a high risk for developing infections [57]. Urinary retention and high post-void residual urine have been postulated to be risk factors for urinary infections in older adults. In men, prostatic hypertrophy causing obstruction to the normal flow of urine leads to high post-void residual urine. The latter and urinary stasis as a result of chronic obstruction are thought to be important factors for developing urinary infections and asymptomatic bacteriuria in older men [58]. Prevention of urinary infections in older adults is an important issue, as overuse of antibiotics in this population remains high.

3.3.7 Chronic Obstructive Pulmonary Disease (COPD)

COPD is a common disease in older people, and it is characterized by severe symptoms, healthcare need and mortality for both patients and caregivers. The treatment of the older patient with COPD is really challenging. Although COPD is a major cause of respiratory failure and dyspnoea in the elderly, the presence of multiple other diseases, including heart failure and anxiety, medication effects and other conditions, including malnutrition may exacerbate COPD symptoms.

Guidelines on disease may not address the full spectrum of both patient and caregiver needs engendered by the increasing burden of advanced disease, particularly the high rate of bothersome symptoms and the risk of functional and cognitive decline. Older people tend to have a disease burden coupled with functional and cognitive decline complicating the successful implementation of treatments. Meeting the needs of older COPD patients and their families requires that healthcare professionals recommend care with a treatment that includes a decision-making plan which takes into account older people comorbid conditions and the increased risk of adverse events, focuses on symptoms' relief and prepares patients and their loved ones for further declines in the person's health [59].

3.3.8 Arthritis and Osteoporosis

Arthritis is a common cause of disability among older people and osteoarthritis in its turn a common form of arthritis. This global chronic joint disease places severe limits on daily activity and quality of life. Affecting mainly hands, knees and hips, osteoarthritis often causes weakness and disability, interferes with work productivity, results in joint replacement and generates inordinate socioeconomic costs**.**

Osteoarthritis is the most common joint disease and is highly prevalent in people over 60 years of age. The presence of osteoarthritis increases the risk of unhealthy ageing and is a risk factor for the development of frailty and sarcopenia later in life. The main symptom of osteoarthritis is joint pain getting worse in exercise and relieved by rest, although pain at rest or during the night is not uncommon in advanced stages. Knee pain is usually experienced in and around the knee. Hip pain is felt in the groin and anterior or lateral thigh. Hip pain can also be referred to the knee. Signs of osteoarthritis include reduced range of joint movement, joint swelling and periarticular tenderness [60].

Recommendations for altering the consequences of this disease and improving the quality of life should involve self-management and expanded patient education as a community-based intervention for people with osteoarthritis. Furthermore, moderate intensity of aerobic physical activity and muscle strengthening exercises should be promoted widely as a public health intervention for older adults. At the same time, weight management should be promoted, and healthy nutrition with dietary guidelines for the general population should be followed. Moreover, a national policy platform should be established to improve health through

evidence-based clinical and community prevention and disease control activities, including core public health infrastructure improvement activities. Finally, workplace environments should be improved by adopting policies and interventions that prevent onset and progression of osteoarthritis [61].

Osteoporosis is defined as a systemic skeletal disease with characteristics of low bone mass and deterioration of bone tissue. In clinical practice, osteoporosis is usually diagnosed by the bone mineral density criteria (BMD) or the occurrence of a fragility fracture. As population ages worldwide, the number of osteoporotic fractures is growing, respectively. Osteoporotic fractures in older people usually result in hospitalization followed by the need of long-term care, impaired quality of life and disability. Therefore, osteoporosis and osteoporotic fractures remain significant public health challenges worldwide.

Osteoporosis does not in itself cause pain or deformity; its importance lies in the fact that it greatly increases the risk of fracture, notably involving pain, deformities and loss of independence. The means of treatment of established osteoporosis are to ameliorate symptoms and reduce the risk of further fractures. Currently available drugs can prevent further bone loss and reduce the risk of further fractures. Prevention of osteoporosis emphasizes in optimizing bone mass by regular exercise (e.g. walking, aerobics), maintaining calcium intake by dietary instructions, moderation of alcohol intake and smoking [62, 63].

In conclusion, physical problems that occur in old age, either as single problems or comorbidities, need to be treated in an individualized manner taking into account the specific needs of the older person; this includes living arrangements, educational and socioeconomic status as well as social support. Wellbeing and the quality of life at older ages depend finally on many factors that result from the life course of each individual, their health and family environment, as well as the socioeconomic environment and social policies.

3.4 Ageing and Mental Problems

Old age affects not only the physical functions of an individual; many changes take place in a person's life, and these affect the psychological health of the person. However, there are many prejudices and misconceptions related to ageing and mental health. For example, it is common for people to think that older people are losing their ability to keep their mental functionality, to keep senile, happy, socially active, etc. These prejudices though are not justified as the majority of older people keep their mental health at a very high level until very old age.

Cognitive function changes in a similar way that physical functions change; in any case these changes are not identical in every older person. There are some changes in memory, as well as in the way that the older person learns new things, but these do not limit the person from keeping his/her critical thinking and the will to advance him-/herself, even by studying for a new language or a university degree. It is a fact that some mental health problems are becoming more common as the individual ages, but that does not mean that every older person is going to be

affected. The reason why these changes happen is known for some problems, e.g. depression, but it is still largely unknown in other, e.g. dementia.

The social and economic state of the person greatly interacts with their psychological health and influences the way that he/she feels, acts and functions in everyday life. The older person that changes his/her situation from working to retirement faces a challenge that can lead to isolation if there was not a preparation for the transition. Retirement also often results in lower income for many older people, as pensions are not calculated and provided according to the needs of the person; again if the person had a preparation for this new state, this could be alleviated. These expected changes need to be faced by both the individual and the society, and measures should be implemented to facilitate the transition in a way that it will not be harmful for the older person's mental health. Older people do not fall from the category of employed to that of retired at an instance. Older people's knowledge and skills are still valuable after retirement and could be used within the family or the community by providing volunteer participation in various activities. This will lead to both, improved wellbeing for the individual and improved services for those receiving the service [3].

One of the major threats as the person ages is losing his/her close relations: the children that leave to lead their own life away from the family home, the partner that dies, the friends that leave or die, etc. In many cases the older person does not have copying mechanisms in place, and in this case there is a possibility to find him-/herself alone. This change could gradually lead to isolation from their usual social network/environment. Isolation can then cause feelings of loneliness and exclusion. Although this specific situation is not unusual, it can be the reason for mental health problems such as substance abuse, anxiety and depression. The following is a short presentation of the most common mental health problems that older people face, that is, anxiety, depression, dementia and delirium.

3.4.1 Anxiety

Anxiety is not a characteristic symptom of old age, and in many instances, it is considered a normal human reaction in specific situations. People of all ages are affected by it in various circumstances, either related to everyday life and work or due to illnesses or other unexpected events. Anxiety becomes a mental health disorder when it becomes persistent and creates uncontrollable reactions that limit the ability of the older person to carry on with his/her normal activity. Anxiety can manifest by somatic symptoms such as elevated blood pressure, high pulses, increased perspiration, changes in behaviour, insomnia, fatigue, etc. Anxiety in most cases is not happening alone; very often it coexists with depression. Health and social care professionals should be aware of the factors that may cause the problem and try to resolve it or support the older person to face it, before the problem needs treatment. Because prevention is not easy, it is necessary that the person learns how to react when some of the causes that create anxiety appear; these reactions should aim either in controlling it or copying with it. A detailed history could help assessing the

causes and guide the professional for possible solutions. Referral to specialized services if it becomes out of control should be necessary [2, 4, 5].

3.4.2 Depression

Depression is a common mental health state that could affect a person at any stage of their life. However, old age is more prone to depression because the person as it gets older finds him-/herself unable to cope with the changes happening in their life and to continue fulfilling the different roles they had assumed in their life. In addition to that, depression can be caused by medicines that the older person takes to treat other chronic problems, such as antihypertensives, antianxiety agents, etc. Depression manifests with indifference in carry on living; one does not care for their hygiene, their food and their relationships. The older person may suffer from insomnia, fatigue, anorexia and weight loss, constipation and lack of interest in sex. They may also complain for physical symptoms such as headache. When the symptoms persist for a long time, there may be also confusion, and the individual looks like he/she suffers from dementia. This is the reason why depression in older people often is misdiagnosed and confused with dementia. Although depression can be treated effectively and the person regains his/her functionality, it is very often overlooked, and the older person suffers without reason [2, 4, 5].

Depression can be identified by trained health and social care professionals by using specialized and valid questionnaires such the CES-D Depression Scale, which has been translated in many languages and is free to use for research purposes [64]. It is, therefore, of great importance that health and social care professionals pay attention to the reactions of older people and recognize the factors that cause it on time in order to help them solve the problems or at least distinguish the early symptoms and refer the older person to specialist care.

3.4.3 Dementia

Dementia, and its most common expression as Alzheimer's disease, although it is possible to manifest earlier in life, is mainly a problem of old age. Alzheimer's disease counts for about 70% of all cases of dementia, and although its onset could be well before the age of 65, it is a fact that the vast majority of cases refers to the very old individuals. The prevalence of the disease increases as age progresses and is a little more common in women than men; it is estimated that 1.6% of the population in the age group of 65–69 is affected and it doubles for every 5 years affecting about 1 in 4 for the age group of 85–89 and over 40% for those ageing from 90 to 94 [65]. It is the most debilitating condition not only for the person that suffers from it but also for his/her caregivers. According to recent statistics, over 47 million people were affected in 2015 worldwide, and this number is expected to rise immensely in the next decades [66]. Dementia causes cognitive impairment and manifests with memory loss, language dysfunction, impaired perception of time and space and at

later stages the patient inability to recognize his/her most familiar and loved persons. Moreover, the patient experiences behaviour changes that are tiring for him-/herself but also his/her caregiver. It is progressing with different paces from person to person but gradually impairs activities of daily living, and the person becomes dependent by other people. Although it is not clear what causes dementia, there is evidence that some of the risk factors for cardiovascular diseases may also increase the risk for acquiring dementia [2–5].

Unfortunately as for today, there is no treatment for dementia. Available medicines can only delay its progress. For this reason it very important that health social care professionals pay significant attention in supporting the population to eliminate harmful lifestyle habits that could help delay the onset of the disease or decreasing its incidence. In addition to that, they must be aware of the measures for as early recognition of signs as possible and towards that they should take any opportunity to inform all older people about the problem and its consequences and support them in maintaining their activity [65]. There are simple and fast measures to use for identifying older people with cognitive changes such the Mini-Mental State Examination that is available in many languages and health and social care professionals can use with some relevant training [66].

One of the bigger problems caused by dementia is the burden experienced by the person's caregivers who very often are older people themselves. Caregivers of people with dementia experience social isolation, depression and psychosomatic problems and need support in order to copy with the burden of caring [65, 67]. In addition to that, there are many social and economic consequences of the disease. It costs loss of productivity to the caregiver and enormous costs in the health and social care services.

3.4.4 Delirium

Delirium is the acute confusion caused to the older person because of impaired cerebral circulation. It is caused mainly by medications, infections - e.g. of the urinary tract -, dehydration, an operation and many other. The signs are disruptions in thinking and behaviour, and very often it is confused with dementia. It can last from hours to days or weeks before it fade away. Although delirium often occurs in patients with dementia, it is not synonymous. The condition is usually temporary and reversible—although there is no recommended and appropriate treatment—and health and social care professionals should be aware of its signs and symptoms, so they can recognize it timely and seek expert advice [68].

Furthermore, if other mental health problems existed before old age arrives, these are not going to disappear; there is a possibility that it will be more severe and lead to disability and need for care in an organized environment.

3.4.5 Mental Health Assessment

Prevention of mental health problems should be the focus of health and social care professionals. Assessment of mental health status should take place at the initial

contact and at different times, either during a planned appointment or because of some other reason and include all factors that are known to be a risk factor for developing a mental health disorder.

A mental health assessment should include individual factors, such as changes in behaviour, cognition and memory, signs and symptoms of delirium and dementia, mood and signs of depression. Loss and grief are frequent at this life stage and are interlinked with personal feelings about the future because it contains the anxiety of death and dying. Therefore, the relevant situations should be included in the information that needs to be gathered in order to have a better picture of the situation of the older person. Stress factors and coping abilities are also important for having a more complete picture of the mental health state of the person. Quality of life and life satisfaction should also be explored, as relationships and feelings of loneliness [69].

Mental wellbeing should be the aim of the detailed assessment and the planning and implementation of activities that will promote it. It is, therefore, necessary to examine the personal transitions during the life span and explore the capability of the person to adapt. Each individual possesses different abilities to manage his/her own situation; some are able to solve problems by themselves, while others rely on the help of support network to overcome them. Individuals also have different preferences and wishes on how each obstacle could be worked out [69].

Mental health and wellbeing cannot be examined in isolation from the social environment where the person lives. In a complete assessment, factors related to contacts with their social network (family, friends, neighbours, etc.), social participation in community centres and activities, other interests such as hobbies, use of modern technology and willingness of engaging in volunteering could provide the whole picture and guide the health and social care professional of the need for support.

In order to support older people to achieve psychosocial wellbeing, measures should be taken to make them able to cope with loss and transitions, to establish roles in their life that provide them with purpose and to achieve independence and take control over their life. Safeguarding their independence and dignity and respecting their wishes while inviting involvement in their care by effective communication are what older people expect from health and social care professionals, and these wishes are similar in terms of gender and ethnic origin [70].

3.5 Frailty

Frailty is a complicated dynamic syndrome related to physical and mental problems. It is an accepted state of health, but it does not have a one only all-approved definition. Frailty could be defined as a clinically recognized state or multidimensional geriatric syndrome, in which an older person's vulnerability to develop negative health-related events is increased. Increased vulnerability results from ageing-associated declines in reserve and function across multiple physiological systems. As a result, older individuals are exposed to endogenous and exogenous

stressors, and the ability to maintain the homeostasis of the body is decreased. In these situations, the ability of an older person to cope with everyday and acute stressors such as illnesses is impaired. Frailty can worsen or improve over time. It is not synonymous with either comorbidity or disability [17]. It is more common among women and over 80 years old. Frailty can either be physical or psychological or a combination of these two. In addition, cognitive frailty has also been raised into discussion. Health-related negative events of frailty or outcomes of frailty include disability, hospitalization, institutionalization, falls and mortality [71, 72]. These adverse health effects escalate into medical and social care needs and increase in financial costs [73].

Recently researchers have shown large numbers of presumed predictors of frailty [74]. From the clinical point of view, predictors suggested and included osteoporosis, weakness, fatigue, weight loss, obesity, balance, muscle strength, comorbidity, cognitive impairment, anaemia and depression. Difficulties in activities related to daily life, unsteady gait, poor endurance and slowness and low level of physical activity describe the factors from the functional perspective. In addition, predictors have been depicted from the pathophysiology perspective. One major predictor of frailty is sarcopenia. Sarcopenia is defined as the loss of muscle mass and strength [17, 75]. This can occur rapidly after the age of 50 years and, later, can be a main cause of disability. For bone health, skeletal muscles provide important support. In this regard, frailty is also related to osteopenia and osteoporosis [76]. Also, a decreased maximal oxygen consumption, lowered testosterone and some inflammatory indicators are included in the predictors of frailty [74].

3.5.1 Frailty Assessment

It is important to identify older individuals who are frail or at risk of becoming frail. Currently, there are different kinds of frailty scales, models or assessment tools in use. Most of the frailty assessment scales have been developed for use in population-based samples and some of them among hospitalized patients. The validity of scales varies, but the Frailty Index (FI) [77], Cardiovascular Health Study scale [17], Groningen Frailty Indicator (GFI) [78] and SHARE-FI [79] are a few examples of scales with good validity. Frailty assessment tools include at least two items, and most of them contain a disability and/or comorbidity component [80]. It is good to be aware that different frailty measures classify different groups of older people as frail.

Older individuals may share different kinds of specific and non-specific worries that may lead the health and social care professional to think about the risk of frailty of their charge. Worries can relate to difficulties with daily activities at home, recent falls, fear of falling or memory disorder. Evaluation of ability to function is one of the basic elements of the frailty identification [81, 82]. Activities related to personal care (ADL activities of daily living) should be assessed, for example, mobility in bed, movement inside and outside the home, dressing the upper and lower body, eating, toilet use, personal hygiene and bathing. Other assessment areas are

activities required for living within a community (IADL instrumental activities of daily living) such as meal preparation, housework, managing finances and medications, phone use, shopping and transporting. These activities should take into account the risk of frailty measures.

Based on diagnostic methods for frailty, two types of conceptualizations can be drawn: unidimensional and multidimensional approaches.

The ***unidimensional approach*** is based on the physical and biological dimensions. One example of unidimensional conceptualization is frailty phenotypes, also referred to as physical frailty, according to Fried and colleagues [17]. This frailty phenotype is described through five characteristics (Fig. 3.2): weakness, slowness, low level of physical activity, poor endurance, exhaustion and weight loss. Weakness refers to a low level of muscle strength measured by maximal grip strength. Grip strength is measured from the dominant hand (over a 3 time average) using a hand-held dynamometer. Slowness describes the ability to walk 4.57 m (15 ft) at a usual pace measured by walking time. Level of physical activity ascertains the activity level during the prior 2 weeks and includes frequency and duration. Exhaustion describes an older person's endurance and energy level measured through self-reporting. Two questions from the CES-D Depression Scale are used to measure the exhaustion level. Weight loss is measured through self-reported questions such as 'In the last year, have you lost more than 10 pounds (4.5 kg) unintentionally?'

Older individuals of the same chronological age can differ dramatically from each other, in respect to frailty characteristics. According to frailty phenotypes, by Fried and colleagues [17], the state of frailty of older individuals has been classified into three different statuses such as non-frail, pre-frail and frail. Non-frail older individuals have none of the above five criteria of frailty. In a pre-frail state, one or two criteria are present. These older individuals are at a high risk of progressing to frailty. Older individuals classed as frail meet three or more criteria.

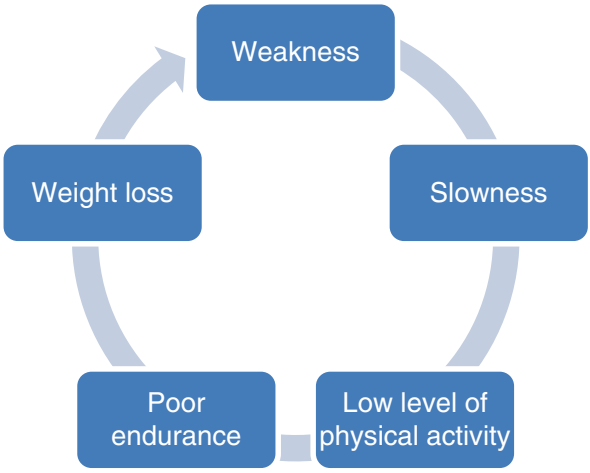

Fig. 3.2 Phenotypes of frailty according to Fried et al. [17]

The ***multidimensional approach*** of frailty is based on the connections between physical, psychological and social domains [83]. According to Rockwood and colleagues [77], frailty is classified into seven different states of health using the Clinical Frailty Scale. They present that the risk of becoming frail increased with certain deficits. These deficits can be multisystem cognitive or physiological changes, and they are not necessarily diseases. The original model of the Clinical Frailty Scale identified 70 different deficits such us symptoms, signs, laboratory values and disabilities, which appear as frailty develops [84]. For example, the deficits are changes in everyday activities, head and neck problems, urinary incontinence, mood problems, sleep changes, restlessness, onset of cognitive symptoms, family history of degenerative diseases, cardiac problems and so on. The deficits can be described as a continuous scale and can be classified through an index [77, 85]. A frailty index is formed by dividing the total number of deficits by the number of variables examined. Older individual risk of becoming frail increases when the index is greater and more deficits are present. In this Clinical Frailty Scale, the frailty categories fluctuate from 'very fit' to 'several frail'. The 'very fit' category describes robust, active and energetic older individuals who are fit and well-motivated and who exercise regularly. On the other hand, the 'several frail' category describes older individuals who are completely dependent on others for daily life activities or are terminal ill. In the healthcare field, modified versions of the Clinical Frailty Scale are used. These versions contain lower number of deficits from the original version, for instance, 12–40 deficits. This Clinical Frailty Scale presents a more holistic view of frailty.

Recent studies increasingly showed new evidence on cognitive frailty. New evidence supports the idea that psychosocial factors such as cognitive decline or ability to learn new things increase vulnerability and lead to frailty [83]. Cognitive frailty is described as 'a heterogeneous clinical syndrome of cognitive impairment' [86]. It is associated with physical frailty or pre-frailty, but it is independent of diagnostic Alzheimer dementia or other dementias [86, 87]. It is also referred to as a subtype of frailty. The Clinical Dementia Rating Scale (CDR) is used to diagnose the process of cognitive frailty. Currently two subtypes of cognitive frailty have been described: reversible and potentially reversible based on CDR and other neurodegeneration biomarkers [88]. From this perspective, health and social care professionals should focus more on cognitive function and early changes in memory.

Information about frailty helps health and social care professionals to identify the current and future needs for services. Comprehensive geriatric assessment (CGA) and multi-professional collaboration are a good way to define the clinical state of frailty. CGA is 'a multidimensional inter-disciplinary diagnostic process focused on determining a frail elderly person's medical, psychological and functional capability in order to develop a co-ordinated and integrated plan for treatment and long-term follow-up' [89]. The clinical state of frailty, diagnosed by a medical doctor, can help to plan care and rehabilitation interventions or the older individual's need for institutional care or risk of death [77]. Awareness is needed of the possibility of frail older individual being disabled and also that not all disabled older individuals are frail. It is assumed that early intervention for frail persons will improve their quality of life and reduce costs of care.

3.5.2 Prevention and Treatment

Frailty as health status is a condition that is preventable and that can be treated. Frailty: A Call to Action, created by consensus groups from six major international European and US societies, has highlighted four treatments for frailty: exercise and regular physical activity, protein-caloric supplementation, vitamin D and reducing polypharmacy.

The first recommended treatment, supported by earlier research results, is ***exercise and regular physical activity*** [72]. Physical exercise and overall level of physical activity start to progressively decline in both men and women, with increasing age. Decline in physical activity is related to decline in muscle mass and strength level. As mentioned before, these negative changes are connected to sarcopenia and functional difficulties in activities of daily living [90].

Both resistant training and aerobic training are recommended for pre-frail or frail older people. The main role of resistant training is to develop muscle mass and maintain the strength level in muscles. In preventing sarcopenia, resistant training has proved to be the most promising training method [91]. All activities at home require muscle strength. For example, old persons need hand grip strength when opening jars, dressing or cleaning at home. Lower extremity strength is required when old persons climb stairs, maintain a standing position and rise up from beds or chairs. Aerobic exercise maintains endurance, which is need for ADL and IADL activities at home or surrounding living environment. A multicomponent exercise programme focused on balance, strength and endurance training is recommended to increase walking speed, functional performance, standing from sitting position, stair climbing and balance. Further, exercise in frail individuals decreases depression and fear of falling. In addition, high-intensity training interventions are more highly recommended than low-intensity exercise [92]. However, it is still unclear what the best exercise programme would be and its type, intensity, frequency and duration. However, 45–60 min exercise period three times per week has proved to have positive effects on frail older individuals [93].

Another treatment of frailty is ***caloric and protein support***. Malnutrition which is common among older people leads to unintentional weight loss [94]. When the weight has started to decline, more frailty-related factors begin to emerge such as weakness, exhaustion, slow walking speed and low level of physical activity. Inadequate dietary intake has been associated with frailty. From this perspective, nutritional screening is highly recommended for frail old people. A recommended screening method is, for example, Mini Nutritional Assessment (MNA) [95]. Nutritional supplementation and high-protein intake may have a beneficial effect on health and functional status among frail old people. Both energy intake and nutritional quality are important to take into account when planning nutritional treatment. The combination of protein supplementation and resistant training has been shown to be an effective treatment method among frail old people [94].

In addition, ***vitamin D*** deficiency is a factor related to frailty. Among old people, vitamin D supplementation may reduce falls, hip fractures and mortality.

In frailty treatment, vitamin D also has a key role. Vitamin D is as essential for bone health, preventing osteomalacia and muscle weakness and protecting against falls and fractures. Vitamin D is provided by skin synthesis by UVB-irradiation from summer sunshine and to a small extent by absorption from food. However, these processes become less efficient with age. Loss of mobility or residential care restricts solar exposure. Reduced appetite and financial problems often add to these problems [96].

In addition, in old people having many chronic diseases (comorbidity), the ***reduction of polypharmacy*** has important effect on frailty. Inappropriate polypharmacy, especially in older people, imposes a substantial burden of adverse drug events, ill health, disability, hospitalization and even death. The single most important predictor of inappropriate prescribing and risk of adverse drug events in older patients is the number of prescribed drugs. Deprescribing which is the process of tapering or stopping drugs, aimed at minimizing polypharmacy and improving patient outcomes, should be carefully considered. Evidence of efficacy for deprescribing is emerging from randomized trials and observational studies [97].

In the future, one of the main challenges among health and social care professionals is to recognize this frailty state as early as possible to prevent or slow down the frailty process. ***Preventive interventions*** with social interactions and events can bring important content to old people's lives by enhancing the quality of life and prevention of frailty. All interventions and preventive or exercise programmes should include monitoring, follow-ups and re-evaluations during and after the interventions [98]. For example, a simple assessment tool for the interventions to measure mobility is timed up-and-go test (TUG). TUG measurement is a good proxy measurement of frailty among old people. One important method to prevent frailty is communication with older people, which is a natural advantage for health and social care professionals. Patient awareness provides one opportunity to increase old people's understanding about frailty. When old people are more aware of frailty, they can understand their own situation better and start to think of the future. The role of health and social care professionals as a support person is highly important.

In summary, frailty is a medical syndrome with pre-frail and frailty state. Two types of frailty can be described: unidimensional and multidimensional approaches. Unidimensional approach is based on the physical and biological dimensions. Multidimensional approach of frailty is based on the connections between physical, psychological and social domains. In addition, cognitive frailty is also described as a subcategory of frailty syndrome. It is important to understand what frailty is and identify older individuals who are at risk of frailty. Currently, there are different kinds of frailty scales, models or assessment tools in use. Frailty can potentially be prevented or treated by including a basic element of regular exercise training. Other potential preventative methods are protein-caloric supplementation, vitamin D and reducing polypharmacy. Every healthcare professional can support older people to be active physically, socially and cognitively and encourage old people to enjoy their life mentally.

3.5.3 Importance of Oral Health for Frail Older People

Frail older people are more at risk for a deterioration of oral health than other patient groups, because of comorbidity, a decline of oral self-care and polypharmacy [99, 100]. Oral health problems like oral pain, abscesses and difficulties with eating and chewing have a significant impact on older peoples' self-esteem, wellbeing, social life and quality of life [101]. Bad oral health contributes to malnutrition, dehydration, pneumonia, joint infections and cardiovascular diseases [102–106]. Malnutrition occurs often in older people, and improving oral health status helps to overcome problems with nutrition and even improves their skeletal muscle mass [103, 104].

In international literature, oral healthcare for frail and institutionalized elderly is marked as 'difficult, not of priority and not sufficient' [107, 108]. Oral hygiene in frail older people that are admitted to a nursing home or other long-term facility is not only compromised; it is very difficult to improve when general health is complex, for example, because of dementia and care-resistant behaviour of the older people [109, 110].

When home-dwelling older people become care dependent and their ability for oral self-care decreases, access to dental care may become a problem as well [111]. Financial barriers, general health issues and the lack of trust in dental treatment have a negative impact on the frequencies of dental visits in older patients [101, 112]. Also, in average the older people's visits to dentists and/or oral hygienist stop 3 years prior to their admittance to the nursing home [109].

3.5.3.1 The Role of (Dental) Care Professionals in the Oral Health (Care) for Frail Older People

It is a worldwide tendency that people live longer and more and more older people have (partial) natural dentition in high age [113, 114]. This is due to the success of general healthcare, improved dental care and the priority that is now given to daily oral hygiene [113, 114].

There is a shift in healthcare going on, concentrating on older people's establishment at home as long as possible, and this creates new challenges in older people's care. How to maintain good oral health, when becoming frail? This rises the demand for preventive oral care for vital older adults as well [115]. It is therefore important to focus on prevention and organize daily oral healthcare for older people (at home). Oral healthcare is already included in daily home care and assessment of oral health, and prevention of oral health problems should be a part usual (nursing) care and is described in protocols and guidelines [102, 116, 117]. When oral diseases are discovered in an early stage, the risk of developing oral and related general health problems may be reduced and prevented with tailored oral healthcare [102, 116]. Chalmers and Pearson (2005) concluded that, with simple training, the assessment of the oral health of older adults could also be done by non-dental professionals and should therefore not be neglected. The need for preventive oral healthcare, just by toothbrushing twice daily, is now evident and requests responsibility of the individual healthcare worker for the (frail) older adults with an oral health demand.

Oral Healthcare

Natural dentition: Brush *twice daily* with fluoride toothpaste and use interdental cleaners (wood sticks/toothpicks or interdental brushes) *once a day*.

(Partial) Prosthesis: Take prosthesis out of the mouth, brush prosthesis with hard prosthesis brush and soap, rinse mouth with water and brush jaws with very soft toothbrush. Before sleeping: take prosthesis out and keep dry and clean in special prosthesis case.

3.6 Common Symptoms Towards End of Life

Meeting the needs of older people and their families towards the end of life is the aim of palliative care. Palliative is a term derived from Latin *palliare*, 'to cloak' or 'shield'. Palliative care (PC) increases the quality of life of seriously ill patients (e.g. cancer, congestive heart failure, COPD, Alzheimer's and Parkinson's diseases or ALS, kidney failure and HIV/AIDS) and their families. PC is active, multiprofessional and holistic care for seriously ill patients of any age or any stage of illness provided by physicians, nurses, other social and healthcare professionals or trained volunteers. PC must also be a part of the care of older patients with life-limiting illnesses throughout the process of the disease [118–120].

The prevention and alleviation of suffering as well as early recognition, assessment and management of pain and other distressing symptoms and disorders (physical, psychological, psychosocial and spiritual) are the main goals of PC. However, the goal of treatment is not to prolong life at all costs. Dying is regarded as a normal part of life, and PC intends not to either hasten or postpone death. Its focus is on symptom management and maximization of function, which are essential in maintaining the quality of life. PC aims to help the patient live as well as possible up to death and to die with dignity. It also intends to help family members and near ones cope during the patient's disease and in their loss. In the early stage of illness, PC can include therapies that are primarily required to prolong life (e.g. chemotherapy to reduce tumour or radiation therapy to relieve bone pain) or investigation (e.g. blood tests, x-rays) that are called for to understand and handle distressing symptoms or complications. The end-of-life care/terminal care is a pertinent part of PC for patients who are living in the final stage of life. Many culturally meaningful variations exist in the dying process in what constitutes a good death, so it is pertinent to create methods and models of PC that are culturally appropriate [118–121].

3.6.1 Assessment and Management in Palliative Care

This chapter focuses mainly on physiological symptoms, but it is pertinent to keep in mind that many PC patients need psychosocial care. Patients' needs must be identified and facilitate physical, social and occupational rehabilitation if needed. Effective management of somatic symptoms, interactive communication and care relationship lay the foundation on patients' psychic coping because symptoms can

be a combination of depression and anxiety together with alteration of activity, e.g. sleeping disorders, fatigue and over-alertness. Some patients may require antidepressant medication.

Adequate pain and symptom management is essential in palliative and end-of-life care. Care for older patients can be complicated by many factors, including the functional impairment, heterogeneity of their health status, polypharmacy, frailty, dementia and delirium. Therefore, the identification of symptoms may be difficult, and patients' spontaneous description of symptoms may be insufficient, so methods that systematically identify the burden of symptoms are needed. It is pertinent to pick the assessment tool the patient is able to use. Pain is a frequent symptom nearly in all PC patients. To screen for pain severity regularly and reassess at frequent intervals, visual analogue scale (VAS), numeric rating scale (NRS) and verbal rating scale (VRS) are considered simple and valid to assess pain intensity in the PC patient. It is pertinent to investigate the type, quality and severity of pain and the presence of breakthrough pain [122, 123].

In addition, non-pain symptoms are multiple, frequent and causing a loss of energy and strength, so they all need to be addressed extensively. Edmonton Symptoms Assessment Scale (ESAS) is a valid and reliable way to assess nine common symptoms (tiredness, depression, anxiety, drowsiness nausea, appetite, wellbeing, shortness of breath and pain) experienced by patients. It is completed either by the patient alone or by the patient with the nurse or relative's assistance. When the nurse, professional or relative completes the scale alone, the scales of subjective are not completed (i.e. wellbeing, tiredness, anxiety and depression). The rest symptoms' assessment must be as objective as possible. Pain assessment is based on a knowledge of pain behaviours; appetite is construed as the presence or absence of eating or of nausea or of retching or vomiting. Dyspnoea is evaluated as troublesome or quicken breathing that seems to be making a burden for the patient [124].

3.6.1.1 Pain

There are many ways to categorize pain. Acute pain, normally caused by tissue damage, becomes on quickly and has a limited duration. Chronic pain is associated with a long-term illness, lasts longer and is mostly quite resistant to medical therapy. Chronic pain can be the result of damaged tissue, but very often, it is originated in nerve damage. Pain can be classified also into nociceptive, neuropathic and idiopathic, based on the mechanism of the pain's origin [125].

Pain should be treated prophylactically in the following order using WHO pain ladder: first, non-opioids (anti-inflammatory drugs and paracetamol); then, when needed, mild opioids (e.g. codeine); and then strong opioids (e.g. morphine), until the patient is painless. Additional drugs ('adjuvants') are not typically used for pain, but they are used in the conditions that are otherwise difficult to treat, e.g. antidepressants should be used to calm fears and anxiety at any step of the ladder. A proper aide-memoire is *by the ladder*, *by the clock* (analgesics should be given at prompt intervals, i.e. every 3–6 h), not only on demand and *by the mouth priority* (this route is preferred for all steps of the pain ladder). Nonpharmacological interventions (e.g. massage, relaxation, cognitive behavioural therapy) should also be

carefully considered in the treatment of older adults in order to minimize drug-drug interactions and serious side effects [126–129].

3.6.1.2 Dyspnoea (Shortness of Breath)

Dyspnoea can be frightening for the patient and caregivers and cause suffering, impaired quality of life and disability to the patient. Dyspnoea can be defined as an awareness of respiratory effort and the sensation of difficulty of breathing, including the persons' reaction to sensation/emotional responses such as worry, fear, panic, frustration and inability to stop thinking about breathing. Patients may use varying expressions such as chest discomfort, breathlessness, distressing breathing, air hunger, shortness of breath or stifling sensation. Possible causes of dyspnoea are fear and anxiety, panic attacks, lung infections (bronchitis, pneumonia), lung disease (e.g. COPD), anaemia, constipation and problems with the liver, heart or kidneys. The following details must be assessed to evaluate dyspnoea: symptoms' timing and quality, precipitating factors, associated symptoms and alleviating factors. The influences of gender, age, race and culture should also be taken into account. The duration, the frequency and onset of dyspnoea must also be taken into account to have insight into the aetiology and management of it. Dyspnoea that comes suddenly can reflect, for example, pulmonary embolism, and chronic dyspnoea slowly progressive diseases such as COPD. It must be kept in mind that dyspnoea is not the same as respiratory insufficiency [130].

Pharmacological Interventions

Breathlessness/dyspnoea is not always related to hypoxia (a diminished availability of oxygen to the body tissues) where oxygen is useful. It seems that ***oxygen*** is not always effective in dyspnoea management, so individuals' response to oxygen therapy may variate. It must be kept in mind that oxygen saturation, arterial blood gases, spirometry and peak expiratory flow (PEF) do not always correlate with the patients' perceived severity of dyspnoea. Oxygen treatment can also have disadvantages: it may interfere eating and communication and limits moving. Oxygen dries mucous membranes in the respiratory tract**.** It may also cause psychical addiction and may worsen hypercapnia, i.e. too much carbon dioxide (CO2) in the bloodstream [131–133].

Opioids are considered effective in relieving dyspnoea from both cancer and non-malignant causes. Morphine decreases respiration rate. It reduces central nervous systems' response to carbon dioxide. It relieves pain in respiratory system and is anxiolytic. Anxiety is one dimension of dyspnoea, so low-dose ***anxiolytics*** can be considered in combination with opioids and nonpharmacological anxiety reduction interventions. They have hypnotic, sedative, anxiolytic and muscle relaxant actions. The low dose with oral route is preferred because it is better tolerated, non-invasive and less costly. Benzodiazepines may be considered as a second- or third-line therapy, if opioids and nonpharmacological interventions have failed to reduce dyspnoea [134–136].

Bronchodilators open airways by dilating smoot muscles of the airways, stabilize mast cells and stimulate the respiratory tract cilia to expel mucus. Due to sympathetic stimulation, side effects might occur (e.g. anxiety and tremors). Inhaled route is preferred with a spacer device/aerosol-holding chambers that make it easier

for medication to get in the lungs, and less medication gets wasted in the mouth and throat. Dyspnoea associated with fluid volume excess (e.g. heart failure, abdominal ascites) can be treated with ***diuretic medication*** that mobilizes oedema, normalize blood volume, reduce vascular congestion and reduce the heart workload. ***Corticosteroids*** can reduce COPD patients' airway inflammation and oedema. They can cause euphoria and increase appetite and vital capacity. Starting doses are usually high and then reduced to a lower dose. Side effects are usual such as nervousness, indigestion, dizziness and insomnia. ***Nonpharmacological interventions can be helpful too***. A fan set (air movement) on low speed directed to the patient's face can reduce the sensation of dyspnoea by stimulating temperature and mechanical receptors in the cheek and nasopharynx, altering feedback to the brain and modifying the sensation of breathlessness. A cool cloth on the neck, head or chest, a cool water sponge, bath, clean, fresh pillow or a breeze from an open window can add an element of comfort and reduce the sensation of breathlessness. Repositioning from side to side or the positioning of the patient for ease of breathing and comfort (e.g. sitting up, leaning forward, sitting or sleeping in a reclining chair in a semi-upright position) can reduce for shortness of breath. Professionals must accept the patient's position of choice even if it belies traditional thinking**.** Feeling of safety, conversation, calming music as well as distraction and relaxation techniques are useful in the treatment of dyspnoea. They help the patient to concentrate on something else than breathing. Massage based on the stimulation of mechanical receptors in the respiratory muscles may also alter the sensation of dyspnoea**.** Slow breaths in through the nose and out through the mouth or to purse lips like going to whistle (pursed lip breathing) are also considered helpful [130, 137–140]. Noisy and voluminous respiratory secretions and exacerbations can be reduced using positive expiratory pressure (PEP) which is the most used technique of airway clearance [141].

3.6.2 Hiccups

Hiccups are involuntary spasms of the diaphragm followed by rapid closure of the vocal cords between normal breaths. Long-lasting or chronic hiccups may interfere with eating, breathing and sleeping, leading to exhaustion, dehydration, malnutrition and aspiration syndromes. Patients may be advised to try breathing deep and slow into a paper bag, drinking slowly cold water, eating a teaspoon of granulated sugar or taking a deep breath and holding it for as long as possible and repeating this several times or eating a piece of dry bread slowly. Most patients with ongoing hiccups require medication with metoclopramide (an antiemetic drug), baclofen (a drug to relax muscles) or chlorpromazine (a sedative) [142–144].

3.6.3 Gastrointestinal Symptoms

Gastrointestinal (GI) symptoms are common in PC patients, in which assessment and management must begin with identification of the underlying cause. Good

nutrition is important in caring for palliative care patients for meeting the physical requirements of the body and because of its associated cultural, social and psychological advantages. Anorexia-cachexia syndrome (ACS) is common in PC patients, and it is one of the most important factors leading to poor quality of life. It appears that lack of interest in eating and appetite; inflammation; insulin resistance; marked muscular, fat and weight loss; fatigue; and weakness are the main components of ACS syndrome. It seems that it is reversible by nutritional interventions such as protein and energy supplementation. PC patients often suffer from loss of appetite also due to medication, trouble of chewing related to mouth or tooth pain, mouth sores or stiff or painful jaws. Humans have always expressed their love through feeding and sharing meals, so these visible signs can be distressing to the patient and family so education is vital. The nutritional care aims to minimize food-related discomfort and maximize food enjoyment. It is pertinent to consider the overall prognosis and stage of disease in deciding the management approach. It is recommended to advise the patient to cut food into small bits and chew slowly. Foods can also be blended or mashed. Smooth and soft food (soup, yogurt, apple sauce, puddings, shakes or smoothies can be helpful, too [145].

3.6.4 Nausea and Vomiting

The aetiology of nausea and vomiting must always be considered. ***Central*** causes of nausea include central nervous system diseases, biochemical abnormalities, infections, food and medication, anxiety or depression. ***Peripheral*** causes can be gastrointestinal or intra-abdominal disorder such as reduced gastric emptying, obstruction, peritoneal disease or ascites. Nausea and vomiting frequently occur together but still are separate symptoms. Avoidance of environmental stimuli such as smells, sounds or sights that may trigger nausea is recommended; a particular food with a positive past experience can be suggested. Changes in diet such as eating small meals, drinking clear liquids, minimizing or even eliminating liquids prior to a meal or during a meal and eating unflavoured food may be helpful. Patient can try to lie flat for 2 h after eating to reduce symptoms. Oral hygiene after meals and at least two times per day is essential. It is also important to treat mouth thrush (candidiasis) and if mouth is painful ask the patient to use cold drinks and ice. Lidocaine gel 2% or morphine mouth water or gel can be helpful too. A cool, damp towel to the forehead and neck or fresh air with a fan or open window can alleviate nausea. Patient can practice relaxation techniques and guided imaginary to avoid nausea and vomiting. ***Antiemetics*** must be administered regularly by an appropriate route (subcutaneous, sublingual, per rectum, suppositories). Unexpected vomiting must always be taken into account. If gastrointestinal obstruction is present, the patient is vomiting of large volumes often containing undigested food. Vomiting which is worst in the mornings is often caused by cerebral disease. If nausea is caused by gastric stasis, ***prokinetics*** (boost gastrointestinal motility by strengthening the contractions in the small intestine and increasing the frequency of them) can reduce gastric emptying. Prokinetics are contraindicated in complete bowel obstruction. Potential adverse effects of antiemetics (extrapyramidal side effects, akathisia, constipation from

5HT3 (serotonin) blocker) must be monitored carefully. The management of constipation must always be optimized [145].

In terminally ill patient, feelings of hunger are generally not apparent; patients want to take very little nutrition. The major discomfort is thirst. Sipping water at least every 2 h and keeping patients' mouth moist with ice chips, a sponge or oral swabs can diminish the sensation of thirst. Dehydration in the end-of-life care can have benefits which keeps the patient most comfortable. Dehydration can diminish the secretions in the lungs, cough and congestion. The swelling (caused by excess body fluids) can be melted away. The diminished fluid in the gastrointestinal tract may also decrease regurgitation, nausea, vomiting and bloating. Dehydration causes less urine output that reduces skin irritation, incontinence, and need to place a urinary catheter (less irritation, painful bladder spasms, serious infections of the urinary tract and body, less pain from having to be placed on a bedpan) [145].

3.6.5 Constipation

Constipation is a multifactorial symptom. The goal of the treatment is prevention because it is very distressing and can lead a poorer quality of life and to avoidable admission to the hospital. The possibility of bowel obstruction must always be kept in mind. Patients with ovarian or bowel cancer or with peritoneal disease are at higher risk. To evaluate the stage of constipation, the hydration must be assessed. Reviewing the drug chart can be helpful, too. Laxatives (osmotic& stimulant) are preferable than bulking agents (e.g. psyllium) because they tend to cause a large bulkier stool. Metoclopramide can reduce nausea and increase motility. It is preferable to ask the patients to write down the times when they have bowel movements, to sip water or juice at least every 2 h, to eat fruit and to walk more, if possible [146].

3.6.6 Fear and Anxiety

Patients may feel fear, tense, worry, confusion and restlessness. Pain, bad thoughts and shortness of breath can trigger them. Patients can have trouble with relaxing, sleeping or getting comfortable. They may need to move for no reason. Breathing and heartbeat can be fast, and sweating, shaking and muscle twitches may occur. Patient can try to ease symptoms, for example, by writing down feelings and thoughts and talking to someone. Moreover, exercise can be helpful. It is important to relax, for example, by breathing deeply and slowly, listening to calming music or having someone to massage, read or talk to. It is pertinent to solve financial issues with a social worker. Also medication is available.

3.6.7 Fatigue

Fatigue is common, prognostically significant and frustrating symptom in end stage of organ failure and advanced cancer; patients describe fatigue with concepts like

weak, exhausted, heavy, slow or dizzy. It is often misinterpreted as unfitness, depression or giving up. Fatigue raises inflammatory markers such as C-reactive protein (CRP). In earlier stages of the disease, the physical activity upkeep is important for wellbeing but less benefit when the disease progresses. The goal of palliative care is to optimize the patient's function around the most valued priorities. Fatigue assessment tools such as Eastern Cooperative Oncology Group Performance Status (ECOG) and Australia-modified Karnofsky Performance Scale (AKPS) are applicable. It is also important to know how much time the patient is resting daily and does the patient have other symptoms such as dyspnoea, depression, pain or insomnia because they can increase the intensity of fatigue. Energy conservation and psychosocial interventions can be helpful [147].

3.6.8 Confusion and Agitation

In advanced illness, confusion and mild to moderate terminal restlessness or agitation (an agitated delirium with cognitive impairment) are common. They tend to appear commonly at the end stage of disease. It can be very stressful for the patient, family, friends or carers [147].

It is important to note that agitation is different to anxiety. Agitated patients will not be able to settle down. They may call out and move around without any control. The patients' personality seems to change, for example, they might become aggressive or withdrawn. They may not be objective about their own condition. For instance, patients can be too weak to stand or walk, but they demand on getting up from the bed. Some patients may have hallucinations and psychotic episodes or be 'out of control'. They may not identify others near them, confusing them with other persons. Some patients may behave as if they were living in the past. At that time, the patients' safety is severely threatened [147–151].

The terminal restlessness and agitation can be linked to fever or sepsis**,** uncontrolled and severe pain, biochemical abnormalities when body organs begin to fail, opioid toxicity (prolonged or high administration), adverse effects of medication (e.g. steroids, hypnotics, anticonvulsants) drug interactions or) and hypercalcemia. Raised intracranial pressure (brain tumours or cerebral metastasis), constipation, distended bladder, oxygen deficiency, blood abnormalities/deranged blood levels (urea, creatinine, calcium, sodium, glucose), infection, uraemia and hepatic encephalopathy can lead to an agitated state. Psychological elements may also be present; facing death may be distressed for patients, so spiritual and emotional needs have to be addressed. This can be challenging if the patient is unresponsive in the dying phase. Sometimes agitation may result from a combination of factors mentioned above, and in many cases, the exact cause is seldom known. A Mini-Mental State Examination should be performed to give a baseline of cognitive impairment, and calcium levels should be monitored. The aim is to exclude underlying causes and to provide adequate treatment depending on the symptoms. When known causes have been discounted, sedating medications usually are added to treatment. This can affect patients' ability to communicate with their near ones. On demand, terminal

sedation may be taken into account as the final option. Ethical principles, principles of informed consent and patient and family consultation must be taken into account during decision-making. At this critical time, health and social care professionals must pay attention to families' and near ones' specific concerns, information and care needs. To help confused patients, it is pertinent to talk quietly and reassuringly and hold their hand when talking. The situation can often worsen at night, so it might be helpful to keep the door open and to turn on a night light. The surroundings must be peaceful and safe (low lights, pleasant smells, and soft music). Changing the surroundings too much is not recommendable. It is advisable to let the patient know if something is going to be moved or taking away or if someone is going into or leave the room [152, 153].

3.6.9 Delirium

Delirium is common in palliative care patients, and it increases close to the death. It is multifactorial and frequently caused by a combination of medications, dehydration, infections or hypoxia. In the very high risk for delirium are the patients with dementia, previous cognitive problems or central nervous system (CNS) pathology. The diagnosis should be explained to the patient and the family, and their concerns should be followed up. It is necessary to recognize delirium early. Information about when the patient was last behaving normally and when that changed is crucial. It is essential to have information about changes in attention or cognitive function, sleep-wake cycle variation or changing mental state. The antipsychotic medication may be an option if the patient is distressed or agitated. It is essential to keep an eye on the safety of the patient and caregivers and pay attention to the familiar, calm and safe environment of the patient [154, 155].

References

1. Eurostat. Population structure and ageing. 2017. http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing.
2. Trail Ross AE, Summerlin E. Senior health. In: Nies MA, McEwen M, editors. Community/public health nursing. Promoting the health of populations. Philadelphia: Saunders; 2007. p. 332–58.
3. European Commission. Population ageing in Europe: facts implications and policies. EUR 26426 EN; 2014.
4. World Health Organisation. World report on ageing and health: Geneva, WHO; 2015.
5. Eliopoulos C. Gerontological nursing. 8th ed. Philadelphia: Lippincott Williams & Wilkins; 2013.
6. MAGGIE major ageing and gender issues in Europe. Project report. www.maggie-project.org.
7. SHARE. Survey of health, ageing and retirement in Europe. Project reports. www.share-project.org.
8. Kingston A, Wohland P, Wittenberg R, Robinson L, Brayne C, Matthews FE, Jagger C. The cognitive function and ageing studies collaboration. Is late-life dependency increasing or not? A comparison of the cognitive function and ageing studies (CFAS). Lancet. 2017;390:1676. https://doi.org/10.1016/S0140-6736(17)31575-1.

9. Kirkwood TB. Understanding the odd science of aging. Cell. 2005;120(4):437–47.
10. World Health Organisation. World report on ageing and health. Editorial team John Beard, Alana Officer and Andrew Cassels, overall guidance of Flavia Bustreo, Anne Marie Worning; and Anarfi Asamoa-Baah. Geneva: WHO; 2015.
11. Sehl ME, Yates FE. Kinetics of human aging: I. Rates of senescence between ages 30 and 70 years in healthy people. J Gerontol A Biol Sci Med Sci. 2001;56(5):B198–208.
12. World Health Organization. Active ageing: a policy framework. 2002. http://www.who.int/ageing/publications/active_ageing/en/.
13. Kirkwood TB. Systems biology of ageing and longevity. Philos Trans R Soc Lond Ser B Biol Sci. 2011;366(1561):64–70.
14. Roberts S, Colombier P, Sowman A, Mennan C, Rölfing JH, Guicheux J, Edwards JR. Ageing in the musculoskeletal system. Acta Orthop. 2016;87(sup363):15–25.
15. Bautmans I, Van Puyvelde K, Mets T. Sarcopenia and functional decline: pathophysiology, prevention and therapy. Acta Clin Belg. 2009;64(4):303–16.
16. Bautmans I. Spieren en spierfunctie (Muscle and muscle function). Chapter 4. In: Cambier D, Hobbelen JSM, de Vries NM, editors. Geriatrie in de fysiotherapie en kinesitherapie. Houten: Bohn Stafleu van Loghum; 2017. ISBN 978-e90-368-1349-4 (in Dutch).
17. Fried LP, Tangen CM, Walston J, et al. Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci. 2001;56(3):M146–56.
18. Lexell J. Human aging, muscle mass, and fiber type composition. J Gerontol A Biol Sci Med Sci. 1995;50:11–6.
19. Marcell TJ. Sarcopenia: causes, consequences and preventions. J Gerontol A Biol Sci Med Sci. 2003;58(10):M911–6.
20. Van Dieen JH, Pijnappels M. Balanscontrole bij veroudering (Balance control in ageing) Chapter 5. In: Cambier D, Hobbelen JSM, de Vries NM, editors. Geriatrie in de fysiotherapie en kinesitherapie. Houten: Bohn Stafleu van Loghum; 2017. ISBN 978-90-368-1349-5 (in Dutch).
21. Sturnieks DL, St George R, Lord SR. Balance disorders in the elderly. Neurophysiol Clin. 2008;38(6):467–78.
22. Davis JC, Best JR, Khan KM, Dian L, Lord S, Delbaere K, Hsu CL, Cheung W, Chan W, Liu-Ambrose T. Slow processing speed predicts falls in older adults with a falls history: 1-year prospective cohort study. J Am Geriatr Soc. 2017;65(5):916–23.
23. Bohannon RW. Comfortable and maximum walking speed of adults aged 20-79 years: reference values and determinants. Age Ageing. 1997;26(1):15–9.
24. Cesari M, Kritchevsky SB, Penninx BW, Nicklas BJ, Simonsick EM, Newman AB, Tylavsky FA, Brach JS, Satterfield S, Bauer DC, Visser M, Rubin SM, Harris TB, Pahor M. Prognostic value of usual gait speed in well-functioning older people—results from the health, aging and body composition study. J Am Geriatr Soc. 2005;53(10):1675–80.
25. Peel NM, Kuys SS, Klein K. Gait speed as a measure in geriatric assessment in clinical settings: a systematic review. J Gerontol A Biol Sci Med Sci. 2013;68(1):39–46.
26. Kuys SS, Peel NM, Klein K, Slater A, Hubbard RE. Gait speed in ambulant older people in long term care: a systematic review and meta-analysis. J Am Med Dir Assoc. 2014;15(3):194–200.
27. Jahn K, Kressig RW, Bridenbaugh SA, Brandt T, Schniepp R. Dizziness and unstable gait in old age—etiology, diagnosis and treatment. Dtsch Arztebl Int. 2015;112:387–93.
28. Hertzog C, Kramer AF, Wilson RS, Lindenberger U. Enrichment effects on adult cognitive development: can the functional capacity of older adults be preserved and enhanced? Psychol Sci Public Interest. 2008;9:1–65.
29. Heyl V, Wahl HW. Experiencing age related vision and hearing impairment: the psychosocial dimension. J Clin Outcomes Manag. 2014;21:323–35.
30. Cowie C, Rust KF, Ford ES, et al. Full accounting of diabetes and prediabetes in the U.S. population in 1988-1994 and 2005-2006. Diabetes Care. 2009;32:287–94.
31. Valiyeva E, Russell LB, Miller JE, et al. Lifestyle-related risk factors and risk of future nursing home admission. Arch Intern Med. 2006;166:985–90.

32. Abdelhafiz AH, Alan J, Sinclair AJ. Management of Type 2 diabetes in older people. Diabetes Ther. 2013;4(1):13–26.
33. Lu FP, Lin KP, Kuo HK. Diabetes and the risk of multi-system aging phenotypes: a systematic review and meta-analysis. PLoS One. 2009;4(1):e4144.
34. Kirkman MS, Briscoe VJ, Clark N, et al. Diabetes in older adults. Diabetes Care. 2012;35:2650–64.
35. Morley JE, Sinclair A. Individualizing treatment for older people with diabetes. Lancet. 2013;382:378–80.
36. Wilkins E, Wilson L, Wickramasinghe K, Bhatnagar P, Leal J, Luengo-Fernandez R, Burns R, Rayner M, Townsend N. European cardiovascular disease statistics. Brussels: European Heart Network; 2017.
37. Hrobonova E, Breeze E, Fletcher AE. Higher levels and intensity of physical activity are associated with reduced mortality among community dwelling older people. J Aging Res. 2011;2011:1.
38. Kesteloot H, Sans S, Kromhout D. Dynamics of cardiovascular and all-cause mortality in western and Eastern Europe between 1970 and 2000. Eur Heart J. 2006;27:107–13.
39. Benjamin EJ, Blaha MJ, Chiuve SE, et al. Heart disease and stroke statistics—2017 update: a report from the American Heart Association. Circulation. 2017;135:146–603.
40. Stone NJ, Robinson JG, Lichtenstein AH, et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association task force on practice guidelines. J Am Coll Cardiol. 2014;63:2889–934.
41. Rich MW, Chyun DA, Skolnick AH, et al. Knowledge gaps in cardiovascular care of the older adult population: a scientific statement from the American Heart Association, American College of Cardiology, and American Geriatrics Society. Circulation. 2016;133:2103–22.
42. Blumenthal J, Sherwood A, Babyak MA, Watkins LL, Waugh R, Georgiades A, Bacon SL, Hayano J, Coleman RE, Hinderliter A. Effects of exercise and stress management training on markers of cardiovascular risk in patients with ischemic heart disease: a randomized controlled trial. JAMA. 2005;293:1626–34.
43. Orkaby A, Onuma O, Qazi S, Gaziano M, Driver J. Preventing cardiovascular disease in older adults: one size does not fit all. Cleve Clin J Med. 2018;85(1):55–64.
44. Lionakis N, Mendrinos D, Sanidas E, Favatas G, Georgopoulou M. Hypertension in the elderly. World J Cardiol. 2012;4(5):135–47.
45. CancerStats. Cancer Research UK. http://www.cancerresearchuk.org/cancer-info/cancerstats/incidence/age/.
46. Rodin MB, Mohile SG. A practical approach to geriatric assessment in oncology. J Clin Oncol. 2007;25:1936–44.
47. Extermann M, Boler I, Reich RR, et al. Predicting the risk of chemotherapy toxicity in older patients: the chemotherapy risk assessment scale for high- age patients (CRASH) score. Cancer. 2012;118:3377–86.
48. Kua J. The prevalence of psychological and psychiatric sequelae of cancer in the elderly- how much do we know? Ann Med Singapore. 2005;34:250–6.
49. DuBeau CE. Beyond the bladder: management of urinary incontinence in older women. Clin Obstet Gynecol. 2007;50:720–34.
50. Holroyd-Leduc JM, Tannenbaum C, Thorpe KE, Straus SE. What type of urinary incontinence does this woman have? JAMA. 2008;299:1446–56.
51. Kothe H, Bauer T, Marre R, Suttorp N, Welte T, Dalhoff K. Outcome of community-acquired pneumonia: influence of age, residence status and antimicrobial treatment. Eur Respir J. 2008;32(1):139–46.
52. Velez JA, Mortensen EM, Anzueto A, Restrepo MI. Antimicrobial treatment of community-acquired pneumonia in the elderly. Aging Health. 2006;2(6):999–1011.
53. https://vaccine-schedule.ecdc.europa.eu/Scheduler/.

54. Tsan L, Langberg R, Davis C, Phillips Y, Pierce J, Hojlo C, Gibert C, Gaynes R, Montgomery O, Bradley S, Danko L, Roselle G. Nursing home-associated infections in Department of Veterans Affairs community living centers. Am J Infect Control. 2010;38(6):461–6.
55. Cotter M, Donlon S, Roche F, Byrne H, Fitzpatrick F. Healthcare-associated infection in Irish long-term care facilities: results from the first National Prevalence Study. J Hosp Infect. 2012;80(3):212–6.
56. Curns AT, Holman RC, Sejvar JJ, Owings MF, Schonberger LB. Infectious disease hospitalizations among older adults in the United States from 1990 through 2002. Arch Intern Med. 2005;165(21):2514–20.
57. Juthani-Mehta M, Quagliarello VJ. Infectious diseases in the nursing home setting: challenges and opportunities for clinical investigation. Clin Infect Dis. 2010;51(8):931–6.
58. Huang AJ, Brown JS, Boyko EJ, Moore EE, Scholes D, Walter LC, Lin F, Vittinghoff E, Fihn SD. Clinical significance of postvoid residual volume in older ambulatory women. J Am Geriatr Soc. 2011;59(8):1452–8.
59. Fried TR, Vaz Fragoso CA, Rabow MW. Caring for the older person with chronic obstructive pulmonary disease: "I was worried that he didn't have much room to decline". JAMA. 2012;26(12):308.
60. Glyn-Jones S, et al. Osteoarthritis. Lancet. 2015;386:376–87.
61. Valdes AM, Stocks J. Osteoarthritis and ageing. Eur Med J. 2018;3(1):116–23.
62. Van den Bergh JP, Van Geel TA, Geusens PP. Osteoporosis, frailty and fracture: implications for case finding and therapy. Nat Rev Rheumatol. 2012;8(3):163–72.
63. Li G, et al. An overview of osteoporosis and frailty in the elderly. BMC Musculoskelet Disord. 2017;18:46.
64. Eaton WW, Muntaner C, Smith C, Tien A, Ybarra M. Center for Epidemiologic Studies Depression Scale: review and revision (CESD and CESD-R). In: Maruish ME, editor. The use of psychological testing for treatment planning and outcomes assessment. 3rd ed. Mahwah, NJ: Lawrence Erlbaum; 2004. p. 363–77.
65. European Collaboration on Dementia. http://www.alzheimer-europe.org/Research/European-Collaboration-on-Dementia.
66. Folstein MF, Folstein SE, McHugh PR. Mini-mental state: a practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res. 1975;12:189–98.
67. Papastavrou E, Kalokerinou A, Alevizopoulos G, Papakostas S, Sourtzi P. Caring for a relative with dementia: family caregiver burden. J Adv Nurs. 2007;58(5):446–57.
68. Kolanowski A. Delirium in people living with dementia: a call for global solutions. Aging Ment Health. 2016;22:444. https://doi.org/10.1080/13607863.2016.1244805.
69. Dijkman B, Roodbol P, Aho J, Achtschin-Stieger S, Andruszkiewicz A, Coffey A, Felsmann M, Klein R, Mikkonen I, Oleksiw K, Schoofs G Soares C, Sourtzi P. European core competences framework for health and social care professionals working with older people. Ellan; 2016. 43p.
70. Soares C, Marques A, Clarke P, et al. Older people's views on professional competences. ELLAN WP 4 report. http://ellan.savonia.fi/images/WP4_Report_3_07_2016.pdf.
71. Fedarko NS. The biology of ageing and frailty. Clin Geriatr Med. 2011;27(1):27–37.
72. Morley JE, Vellas B, van Kan GA, Anker SD, Bauer JM, Bernabei R, Cesari M, Chumlea WC, Doehner W, Evans J, Fried LP, Guralnik JM, Katz PR, Malmstrom TK, McCarter RJ, Gutierrez Robledo LM, Rockwood K, von Haehling S, Vandewoude MF, Walston J. Frailty consensus: a call to action. J Am Med Dir Assoc. 2013;14(6):392–7.
73. Lally F, Crome P. Understanding frailty. Postgrad Med J. 2007;83(975):16–20.
74. Chen X, Mao G, Leng SX. Frailty syndrome: an overview. Clin Interv Aging. 2014;19(9):433–41.
75. Bernabei R, Martone AM, Vetrano DL, Calvani R, Landi F, Marzetti E. Frailty, physical frailty, sarcopenia: a new conceptual model. Stud Health Technol Inform. 2014;2013:78–84.
76. Landi F, Calvani R, Cesari M, Tosato M, Martone AM, Ortolani E, Savera G, Salini S, Sisto AN, Picca A, Marzetti E. Sarcopenia: an overview on current definitions, diagnosis and treatment. Curr Protein Pept Sci. 2017;6.

77. Rockwood K, Song X, MacKnight C, Bergman H, Hogan DB, McDowell I, Mitnitski A. A global clinical measure of fitness and frailty in elderly people. CMAJ. 2005;173(5):489–95.
78. Steverink N, Slaets JPJ, Schuurmans H, van Lis M. Measuring frailty: development and testing of the Groningen frailty indicators (GFI). Gerontologist. 2001;41(special issue 1):236–7.
79. Romeno-Ortuno R, Walsh CD, Lawlor BA, Kenny RA. A frailty instrument for primary care: findings from the survey of health, ageing and retirement in Europe (SHARE). BMC Geriatr. 2010;24(10):57.
80. Boulillon K, Kivimäki M, Hamer M, Sabia S, Fransson EI, Singh-Manoux A, Gale CR, Batty GD. Measures of frailty in population-based studies: an overview. BMC Geriatr. 2013;13:64.
81. Vermeulen J, Neyens JC, van Rossum E, Spreeuwenberg MD, de Witte LP. Predicting ADL disability in community-dwelling elderly people using physical frailty indicators: a systematic review. BMC Geriatr. 2011;1(11):33.
82. Amer M, Farid T, El-Rahman E, EL-Maleh D, Omar O, Mabrouk R. Ability of comprehensive geriatric assessment to detect frailty. Adv Aging Res. 2014;3:63–9.
83. Sacha J, Sacha M, Soboń J, Borysiuk Z, Feusette P. Is it time to begin a public campaign concerning frailty and pre-frailty? A review article. Front Physiol. 2017;11:484.
84. Mitnitski AB, Mogilner AJ, Rockwood K. Accumulation of deficits as a proxy measure of aging. ScientificWorldJournal. 2001;8(1):323–36.
85. Crome P, Lally F. Frailty: joining the giants. CMAJ. 2011;183(8):889–90.
86. Panza F, D'Introno A, Colacicco AM, Capurso C, Parigi AD, Capurso SA, Caselli RJ, Pilotto A, Scafato E, Capurso A, Solfrizzi V. Cognitive frailty: Predementia syndrome and vascular risk factors. Neurobiol Aging. 2006;27(7):933–40.
87. Kelaiditi E, Cesari M, Canevelli M, van Kan GA, Ousset PJ, Gillette-Guyonnet S, Ritz P, Duveau F, Soto ME, Provencher V, Nourhashemi F, Salvà A, Robert P, Andrieu S, Rolland Y, Touchon J, Fitten JL, Vellas B. IANA/IAGG. Cognitive frailty: rational and definition from an (I.A.N.A./I.A.G.G.) International Consensus Group. J Nutr Health Aging. 2013;17(9):726–34.
88. Ruan Q, Yu Z, Chen M, Bao Z, Li J, He W. Cognitive frailty, a novel target for the prevention of elderly dependency. Ageing Res Rev. 2015;20:1–10.
89. Lipschitz S. Comprehensive geriatric assessment. Afr J Online. 2007;25:418–30.
90. Marty E, liu Y, Samuel A, Or O, Lane J. A review of sarcopenia: enhancing awareness of an increasingly prevalent disease. Bone. 2017;17(17):30345–9.
91. Bosaeus I, Rothenberg E. Nutrition and physical activity for the prevention and treatment of age-related sarcopenia. Proc Nutr Soc. 2016;75(2):174–80.
92. de Vries NM, van Ravensberg CD, Hobbelen JS, Olde Rikkert MG, Staal JB, Nijhus-van der Sanden MW. Effects of physical exercise therapy on mobility, physical functioning, physical activity and quality of life community-dwelling older adults with impaired mobility, physical and/or multi-morbidity: a meta-analysis. Ageing Res Rev. 2012;11(1):136–49.
93. Theou O, Stathokostas L, Roland KP, Jakobi JM, Patterson C, Vandervoort AA, Jones GR. The effectiveness of exercise interventions for the management of frailty: a systematic review. J Aging Res. 2011;4:569194.
94. Artaza-Artabe I, Sáez-López P, Sánchez-Hernández N, Fernández-Gutierrez N, Malafarina V. The relationship between nutrition and frailty: effects of protein intake, nutritional supplementation, vitamin D and exercise on muscle metabolism in the elderly. A systematic review. Maturitas. 2016;93:89–99.
95. Bollwein J, Volkert D, Diekmann R, Kaiser MJ, Uter W, Vidal K, Sieber CC, Bauer JM. Nutritional status according to the mini nutritional assessment (MNA®) and frailty in community dwelling older persons: a close relationship. J Nutr Health Aging. 2013;17(4):351–6.
96. Boucher BJ. The problems of vitamin d insufficiency in older people. Aging Dis. 2012;3(4):313.
97. Scott IA, Hilmer SN, Reeve E, Potter K, Le Couteur D, Rigby D, Gnjidic D, Del Mar CB, Roughead EE, Page A, Jansen J. Reducing inappropriate polypharmacy: the process of deprescribing. JAMA Intern Med. 2015;175(5):827–34.

98. Savva GM, Donoghue OA, Horgan F, O'Regan C, Cronin H, Kenny RA. Using timed up-and-go to identify frail members of the older population. J Gerontol A Biol Sci Med Sci. 2013;68(4):441–6.
99. Coleman P. Improving oral health care for the frail elderly: a review of widespread problems and best practices. Geriatr Nurs. 2002;23(4):189–99.
100. Hoeksema AR, Spoorenberg S, Peters LL, Meijer H, Raghoebar GM, Vissink A, Wynia K, Visser A. Elderly with remaining teeth report less frailty and better quality of life than edentulous elderly: a cross-sectional study. Oral Dis. 2017;23(4):526–36. https://doi.org/10.1111/odi.12644. Epub 2017 Mar 9.
101. Niesten D, Witter DJ, Bronkhorst EM, Creugers NHJ. Oral health care behavior and frailty-related factors in a care-dependent older population. J Dent. 2017;61:39–47. https://doi.org/10.1016/j.jdent.2017.04.002. Epub 2017 Apr 2.
102. Chalmers J, Pearson A. Oral hygiene care for residents with dementia: a literature review. J Adv Nurs. 2005;52(4):410–9.
103. Soini H, Routasalo P, Lauri S, Ainamo A. Oral and nutritional status in frail elderly. Spec Care Dentist. 2003;23(6):209–15.
104. Somma F, Castagnola R, Bollino D, Marigo L. Oral inflammatory process and general health. Part 1: the focal infection and the oral inflammatory lesion. Eur Rev Med Pharmacol Sci. 2010;14:1085–95.
105. Yoneyama T, Hashimoto K, Fukuda H, Ishida M, Arai H, Sekizawa K, Yamaya M, Sasaki H. Oral hygiene reduces respiratory infections in elderly bed-bound nursing home patients. Arch Gerontol Geriatr. 1996;22:11–9.
106. Teeuw WJ, Gerdes VE, Loos BG. Effect of periodontal treatment on glycemic control of diabetic patients: a systematic review and meta-analysis. Diabetes Care. 2010;33:421–7.
107. Coleman P, Watson NM. Oral care provided by certified nursing assistants in nursing homes. J Am Geriatr Soc. 2006;54(1):138–43.
108. Vanobbergen JN, De Visschere LM. Factors contributing to the variation in oral hygiene practices and facilities in long-term care institutions for the elderly. Community Dent Health. 2005;22(4):260–5.
109. Weening-Verbree LF. Rapport Krasse Tanden; 2014.
110. Weening-Verbree L, Huisman-de Waal G, van Dusseldorp L, van Achterberg T, Schoonhoven L. Oral health care in older people in long term care facilities: a systematic review of implementation strategies. Int J Nurs Stud. 2013;50(4):569–82. https://doi.org/10.1016/j.ijnurstu.2012.12.004. Epub 2013 Jan 3.
111. Dougall A, Fiske J. Access to special care dentistry, part 9. Special care dentistry services for older people. Br Dent J. 2008;205(8):421–34. https://doi.org/10.1038/sj.bdj.2008.891.
112. Kiyak HA1, Reichmuth M. Barriers to and enablers of older adults' use of dental services. J Dent Educ. 2005;69(9):975–86.
113. Garssen J. Demografie van de vergrijzing. CBS 2011 (Dutch central agency for statistics). 2011. http://www.cbs.nl.
114. Petersen PE, Kandelman D, Arpin S, Ogawa H. Global oral health of older people—call for public health action. Community Dent Health. 2010;27(Supplement 2):257–68.
115. Branca S, Bennati E, Ferlito L, Spallina G, Cardillo E, Malaguarnera M, Motta M. The health-care in the extreme longevity. Arch Gerontol Geriatr. 2009;49:3234.
116. Verenso. Richtlijn mondzorg voor zorgafhankelijke cliënten in verpleeghuizen; 2007.
117. Vilans. Kick protocollen: Mondverzorging bij afwezigheid gebit of gebitsprothese, Poetsen natuurlijk gebit, Schoonmaken gebitsprothese, Mondverzorging in palliatieve fase en bij chemotherapie of radiotherapie. 2017. www.vilans.nl.
118. WHO, Regional Office for Europe. Palliative care for older People; Better practices. 2011. http://www.euro.who.int/__data/assets/pdf_file/0017/143153/e95052.pdf.
119. The Finnish Association for Palliative Care. https://www.sphy.fi/yhdistyksemme/historiaa/the-finnish-association-for-pall/.
120. Saarto T. Palliatiivisen hoidon määritelmä. In: Saarto T, Hänninen J, Vainio A, Antikainen R, editors. Palliatiivinen hoito. 3rd ed. Helsinki: Kustannus OY Duodecim; 2015. p. 31–43.

121. Cancer Care Ontario. 2005. https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=13262.
122. Caraceni A, Cherny N, Fainsinger R, Kaasa S, Poulain P, Radbruch L, De Conno F. Pain measurement tools and methods in clinical research in palliative care: recommendations of an Expert Working Group of the European Association of Palliative Care. J Pain Symptom Manage. 2002;23:239–55.
123. Vainio A, Vuorinen E. Kivun esiintyvyys palliatiivisessa hoidossa. In: Saarto T, Hänninen J, Vainio A, Antikainen R, editors. Palliatiivinen hoito. 3rd ed. Helsinki: Kustannus OY Duodecim; 2016.
124. Hänninen J. Oireiden esiintyvyys palliatiivisessa hoidossa. In: Saarto T, Hänninen J, Vainio A, Antikainen R, editors. Palliatiivinen hoito. 3rd ed. Helsinki: Kustannus OY Duodecim; 2015. p. 31–43.
125. Alexander K, Goldberg J, Korc-Grodzicki B. Palliative care and symptom management in older patients with cancer. Clin Geriatr Med. 2016;32:45–62.
126. Paineurope. http://www.paineurope.com/tools/who-analgesic-ladder.
127. Coyle N, Layman-Goldstein M, Huner Johnson L. Pain assessment and pharmacological/nonpharmacological interventions. In: Matzo M, Sherman DW, editors. Palliative care nursing: quality care to the end of life. 4th ed. New York: Springer; 2014. p. 548–618.
128. Abdulla A, Adams N, Bone M, Elliott AM, Gaffin J, Jones D, Knaggs R, Martin D, Sampson L, Schofield P. Guidance on the management of pain in older people. Age Ageing. 2013;42:1–57.
129. Hökkä M, Kaakinen P, Pölkki T. A systematic review: non-pharmacological interventions in treating pain in patients with advanced cancer. J Adv Nurs. 2014;70(9):1954–69.
130. Balkstra C. Dyspnea. In: Matzo M, Sherman DW, editors. Palliative care nursing: quality care to the end of life. 4th ed. New York: Springer; 2014. p. 620–46.
131. Baralatei FT, Ackermann RJ. Care of patients at the end of life: management of nonpain symptoms. FP Essent. 2016;447:18–24.
132. LeBlanc TW, Abernethy AP. Building the palliative care evidence base: lessons from a randomized controlled trial of oxygen vs room air for refractory dyspnea. J Natl Compr Cancer Netw. 2014;12:989–92.
133. Clark K, Herndon JE II, Marcello J, Young IH, Bull J, Wilcock A, Booth S, Wheeler JL, Tulsky JA, Crockett AJ, Currow DC. Effect of palliative oxygen versus room air in relief of breathlessness in patients with refractory dyspnoea: a double-blind, randomised controlled trial. Lancet. 2010;4(376):784–93.
134. Simon ST, Higginson IJ, Booth S, Harding R, Weingärtner V, Bausewein C. Benzodiazepines for the relief of breathlessness in advanced malignant and non-malignant diseases in adults. Cochrane Database Syst Rev. 2016;20:10.
135. Kamal AH, Maguire JM, Wheeler JL, Currow DC, Abernethy AP. Dyspnea review for the palliative care professional: treatment goals and therapeutic options. J Palliat Med. 2012;15:106–14.
136. Varkey B. Opioids for palliation of refractory dyspnea in chronic obstructive pulmonary disease patients. Curr Opin Pulm Med. 2010;16:150–4.
137. Cairns LM. Managing breathlessness in patients with lung cancer. Nurs Stand. 2012;27:44–9.
138. Booth S, Moosavi SH, Higginson IJ. The etiology and management of intractable breathlessness in patients with advanced cancer: a systematic review of pharmacological therapy. Nat Clin Pract Oncol. 2008;5:90–100.
139. Thomas S, Bausewein C, Higginson I, Booth S. Breathlessness in cancer patients—implications, management and challenges. Eur J Oncol Nurs. 2011;15:459–69.
140. Galbraith S, Fagan P, Perkins P, Lynch A, Booth S. Does the use of a handheld fan improve chronic dyspnea? A randomized, controlled, crossover trial. J Pain Symptom Manag. 2010;39:831–8.
141. Nicolini A, Mascardi V, Grecchi B, Ferrari-Bravo M, Banfi P, Barlascini C. Comparison of effectiveness of temporary positive expiratory pressure versus oscillatory positive expiratory pressure in severe COPD patients. Clin Respir J. 2018;12:1274–82.

142. Pöyhiä R, Lehto J. Hikka. In: Saarto T, Hänninen J, Vainio A, Antikainen R, editors. Palliatiivinen hoito. 3rd ed. Helsinki: Kustannus OY Duodecim; 2015.
143. Cancer Research UK. Coping with cancer. Hiccups and cancer. http://www.cancerresearchuk.org/about-cancer/coping/physically/hiccups-and-cancer. Accessed 1 Aug 2017.
144. Marinella MA. Diagnosis and management of hiccups in the patient with advanced cancer. J Support Oncol. 2009;7:122–7.
145. Blush RR III, Pamala D. Larsen 709. In: Matzo M, Sherman DW, editors. Palliative care nursing quality care to the end of life. 4th ed. New York: Springer. p. 620–46.
146. Clark K, Lam LT, Talley NJ, Phillips JL, Currow DC. Identifying factors that predict worse constipation symptoms in palliative care patients: a secondary analysis. J Palliat Med. 2017;20:528–32.
147. Haig S. Diagnosing dying: symptoms and signs of end-stage disease. End Life Care. 2009;4:8–13. www.endoflifecare.co.uk. Accessed 15 Sept 2017.
148. Chand S. Dealing with the dying patient—treatment of terminal restlessness. Pharm J. 2013;290:382.
149. Hospital Patients Alliance. Signs and symptoms of approaching death. http://www.hospicepatients.org/hospic60.html. Accessed 3 Oct 2017.
150. Cancer research UK. What happens in the final days of life. http://www.cancerresearchuk.org/about-cancer/coping/dying-with-cancer/last-few-weeks-and-days/final-days. Accessed 3 Oct 2017.
151. Hospital Patients Alliance. Terminal agitation: a major distressful symptom in the dying. http://www.hospicepatients.org/terminal-agitation.html. Accessed 15 Dec 2017.
152. Maluso-Bolton T. Terminal agitation. J Hosp Palliat Nurs. 2000;2:9–20.
153. Brajtman S. The impact on the family of terminal restlessness and its management. Palliat Med. 2003;17:454–60.
154. Nunn C. It's not just about pain: symptom management in palliative care. Nurse Prescrib. 2014;12:338–44.
155. Dahlin CM. Anxiety, depression and delirium. In: Matzo M, Sherman DW, editors. Palliative care nursing quality care to the end of life. 4th ed. New York: Springer. p. 647–93.

Healthy Ageing

4

Riitta Turjamaa, Hillegonda A. Stallinga, Matthieu H. G. de Greef, Andrea M. Werkman, Petrie F. Roodbol, and Erik Buskens

4.1 Definitions of Health

What is health? When are people healthy? There are a number of approaches to define health. These are oriented on different perspectives or health norms. For example, health can be understood as the absence of complaints or symptoms or the

R. Turjamaa (✉)
Unit of Health Care, Savonia University of Applied Sciences, Kuopio, Finland
e-mail: riitta.turjamaa@savonia.fi

H. A. Stallinga
Section of Nursing Research, Department of Health Science, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands
e-mail: h.a.stallinga@umcg.nl

M. H. G. de Greef
Research and Innovation Group in Health Care and Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: m.h.g.de.greef@pl.hanze.nl

A. M. Werkman
School of Health Care Studies, Nutrition and Dietetics Programme, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: a.m.werkman@pl.hanze.nl

P. F. Roodbol
Research Group Nursing Diagnostics, School of Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: p.f.roodbol@umcg.nl

E. Buskens
Department of Epidemiology, University of Groningen, Groningen, The Netherlands

Department of Operations Management and Operations Research, Faculty of Economics and Business, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands
e-mail: e.buskens@umcg.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_4

capability to cope with stress and strain; for some health is a synonym for well-being and happiness. The particular visions have a significant influence on which means are considered appropriate to improve and promote health. This is essential, since these specifications determine how healthcare will be organized. The current and formal definition of health is stated by the World Health Organization (WHO): 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' [1]. This definition is criticized in the last decades, for several reasons. The first one is the state of 'complete physical, mental and social wellbeing'. No one can achieve this state, and therefore it labels a lot of people unhealthy for most of the time [2, 3]. Second, this definition assumed a kind of objective state. To classify people as unhealthy, [3, 4] standards or norms have to be determined by established characteristics in a reference group. Deviations from these norms are labelled as negative, and a person will be classified as ill, or not healthy, when complaints and symptoms related to a disease are present. Setting norms and standards are set for a large extent in the bodily part of the definition such as, for example, blood pressure and body temperature. But, how to deal with the other dimensions in the definition? Standards and norms cannot be set in that way for the social part. That is why this definition is labelled as biomedical, representing a pathogenic orientation of health, focused on curing body functions and looking after causes of disease [5].

Available evidence supports that health has to be viewed as a dynamic, complex, adaptive, positive and personal balanced state. It has to be considered as a multidimensional concept, including bodily items, sociological items, abilities, meaningfulness and performance [3, 6–8]. The most recent proposed conceptualization of health will illustrate this new vision on health: 'health is the ability to adapt and self-manage in the face of emotional, physical and social challenges' [2].

This widespread and most cited new concept of health emphasizes ability, adaptation and self-management in a biopsychosocial context. In line with its origin from the salutogenic approach [9], this is called 'positive health' as counterpart to 'ill health'. It is acknowledged that in modern healthcare systems, the biomedical pathogenic ill health approach is limiting and even counterproductive [2, 4]. Both, the salutogenic and the biopsychosocial perspective, point to the need to adopt, teach and systematically implement into the health system as a whole and its professionals individually in their interaction with patients [3, 10, 11]. This will support the experience of 'being healthy', even though biological or physical abilities have become markedly reduced [12].

4.1.1 Salutogenesis and the Biopsychosocial Model

Salutogenesis [9, 13] is an approach focused on discovering the causes and precursors of health. It is complementary to the pathogenic orientation focusing on the causes and precursors of disease [14–16]. Relevant practical constructs in this approach are the sense of coherence (SOC) and the generalized resistance resources (GRR).

- Sense of coherence (SOC) is an instrument which measures how comprehensible, manageable and meaningful a person views his own life. A strong SOC is associated with better health reflecting a person's capacity to deal with stressors and also enable them to have the capacity to qualify and find the ways to manage their life [11].
- General resistance resources (GRR) is an overview of biological (e.g. genes, intelligence, immune system), material (e.g. money, home) and psychosocial (e.g. knowledge, experience, social networking) resources which will reinforce a person's SOC. This means that persons with a strong SOC are likely to identify a greater variety of GRRs at their disposal [11].

The biopsychosocial model [17, 18] emerged from dissatisfaction with the biomedical model of illness. The model broadened the scope of health by incorporating the psychological and sociological dimension to the biological dimension. The model is considered as a complex, adaptive, personal and experiential system model. This means that the system can fail even if all subparts are normal [19]. The person him/herself can determine when the various components are in balance [3, 19].

In 2001, the WHO published its International Classification of Functioning, Disability and Health (ICF) [20], which is explicitly related to the biopsychosocial model. Comparable to the operationalizing of disease, as central theme in the pathogenic-biomedical perspective, by the International Classification of Diseases (ICD) [21], functioning is proposed as the central theme to operationalize the salutogenic-biopsychosocial perspective by the ICF.

4.1.2 Functioning and the International Classification of Functioning, Disability and Health (ICF)

The ICF is published as a common language and framework to describe health and health-related states. The framework is described as the conceptual model of health (Fig. 4.1). Functioning, as central theme in the ICF, is described as the result of a dynamic interaction between health conditions (i.e. diseases or disorders) and contextual factors (i.e. environmental and personal factors) [20]. Functioning pertains to how people function in everyday life, in the performance of activities and in the areas of life in which they participate [22].

Functioning is presented as a tripartite construct (Fig. 4.1) including the components of body functions and structures (what people have, e.g. sensory functions; eyes), activities (what people do, e.g. reading) and participation (the type of relationships in which people are involved, e.g. family, work) [22]. The environmental factors include all aspects of the physical, social and attitudinal world (e.g. devices, family, political opinions). Personal factors include age, gender, race, education, profession and so forth. Personal factors are not classified yet in the ICF; they are currently under construction [23].

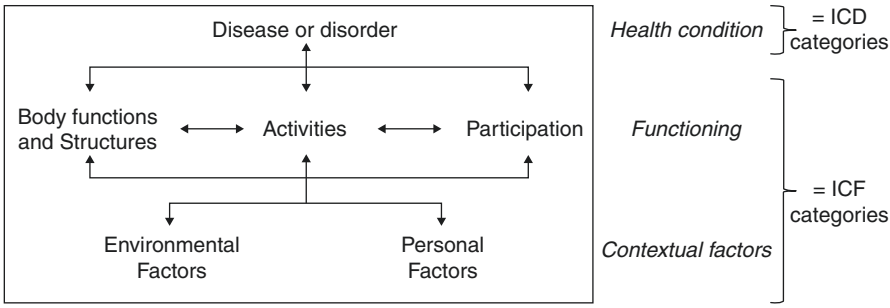

Fig. 4.1 WHO's conceptual model of health representing the interactions between the components (disease, body functions and structures, activities, participation, environmental and personal factors) of the health status [20]. *ICD* International Classification of Diseases; *ICF* International Classification of Functioning, Disability and Health

In the conceptual model of health, the ICF and the ICD are complementary; both classifications have to be used to describe an individual's health status [20].

This model facilitates the process of clinical decision-making by the members of the (multidisciplinary) team and acknowledges that characteristics and status of functioning of patients with the same health condition may differ more than those between patients with different health conditions [24].

4.1.3 Application of ICF

The first step in healthcare provision is to identify the patient's problems and needs [25]. The model can be applied to describe the patient's problems, capacities, resources and targets to get a complete picture of the patient's health status, which is relevant to determining multidisciplinary healthcare provision. The model represents what affects the patient and addresses those (i.e. the target mediators and abilities) with the most potential for improving the patient's health [20, 24, 26–28]. Almost 1500 categories of ICF offer a differentiated language to describe a patient's health state in his/her specific environment. Each ICF category has a discrete meaning and unique code.

The concept of functioning has to be understood as a continuum ranging from completely able (non-problematic) to completely disabled (problematic), which can be expressed by qualifiers ranging from 0 (no problem) to 4 (complete problem). For example, the ICF code d450.1 describes a person's (dis)ability to walk as a mild problem. The environmental factors can act as complete barrier (decreasing ability or producing disability) or as complete facilitator (improving ability or eliminating disability). For example, the ICF code e310.2 means that the 'immediate family' acts as a moderate barrier, and e310 + 2 means that the 'immediate family' acts as a moderate facilitator (facilitators are denoted in the code with a plus sign instead of a period).

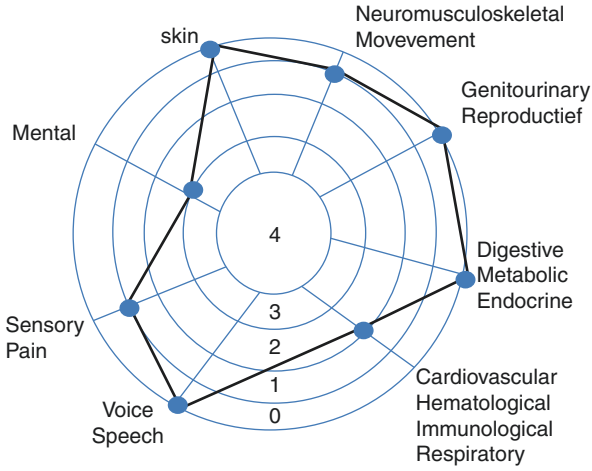

Fig. 4.2 Example of an ICF spider chart of body functions of a patient

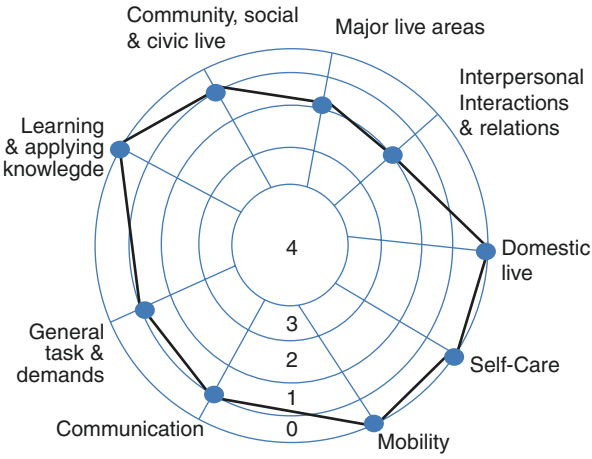

Fig. 4.3 Example of an ICF spider chart of activities and participation scores of a patient

Core sets, meaning a selected set of ICF categories, related to a specific health condition [22, 29], can serve as a minimal standard for the assessment and reporting of the status of functioning. Visualizing functioning in net diagrams or spider charts (Figs. 4.2 and 4.3) by using ICF categories in an electronic system [30] can help to recognize predispositions over time, as well as making information accessible to professionals and patients [31].

4.2 Older People's Comprehensions of Health

In the previous Sect. 4.1, the concept of health was discussed. Most of older people want to live healthy lives in their own homes. Health is a natural part of ageing, and the understanding of health makes it possible for older people to define and find

strategies to manage everyday activities. For health and social care professionals, awareness of multidimensional approaches to older people's health is an opportunity to recognize the individuality of older people and their resources and thus to find suitable ways to support their health as well as resources and everyday life at home [32].

Comprehension of health for older people is a multifaceted issue, and it has been described and evaluated from different perspectives. Older people's health can be described, for example, from perspective of health expectancy, perceived health, self-care ability and quality of life, and measured by using questionnaires and interviews related to older people's opinions concerning their own health [32].

Health expectancy can be understood as an indicator of population's health that is used to evaluate quantity as well as quality of life dimensions of health. As an indicator, health expectancy produces information about health status such as morbidity, mortality and disability. In addition, it compares changes in social and economic conditions, medical advances and changes of lifestyles, as well as better access to health services. As a calculator, health expectancies can be exploited to estimate differences between socio-economic categories and regions and to analyse the changes that occur. Perspective of older people's health, using health expectancy on the level of health policy, is remarkable because it makes possible to evaluate and foretell needs for care and services in the future [32].

Perceived health is related to the individual's subjective conceptions of their own health. It means not only the lack of chronic disease or invalidity but also well-being in all life sectors, such as social and mental dimensions which make possible to catch up and realize individual dreams and goals. From the view of health evaluation, perceived health is an indicator for predicting mortality in addition to demographic variables and physical health. Therefore, evaluating how physical, mental and social well-being influence on perceived health will help to improve positive conception of one's own health in ageing. Perceived health will vary among older people. In a study [33], older people aged 75 evaluated their health as good or very good; however, at the same time, they mentioned many kinds of health problems. Having positive expectations about one's own health is found to be significant for older people's perceived health [34]. Older people with a positive attitude and conceptions of their health predicted higher degree of life satisfaction than those with negative conceptions [35]. Therefore, older people's own assessment of their health is emphasized to be an important factor to be taken into account in the field of older people's examination and care. When observing older people's health, their own experience of their health is found to be one of the most common elements influencing on their quality of life [36]. Quality of life can be observed both objectively and subjectively. From the outside, as objective approach, it is possible to evaluate health, lifestyle and standards of life. Whereas, life satisfaction and well-being are individual experiences and can be described as subjective approach [37].

Furthermore, quality of life is related to individual's own experience of their abilities as well as disabilities [38]. Especially among older people, different health problems are highly prevalent and may make difficult to manage daily activities. However, older people with a high quality of life adapt to changing health

conditions, and therefore, it is significant to perceive that results of objective and subjective evaluations for quality of life can be contrary [39]. When older people accept their variable health condition, their quality of life will improve [38]. We have to take into consideration that old age does not mean automatically that quality of life will reduce. For example, available resources and other individual elements influence how older people evaluate and deal with their quality of life [40].

When observing older peoples' health, self-care ability is one part of health related to individuals' lifestyle. It can be described as the method of activities that individuals will do to achieve their health and well-being [41]. Self-care ability is linked to older people's activities of daily living (ADL), such as eating, bathing and dressing, and instrumental activities of daily living (IADL), such as managing money, shopping, using the telephone, housekeeping and preparing meals [42] as well as otherwise enjoying independent living in their own homes. In older peoples' daily life, satisfactory self-care ability makes possible active participation in improving their own health [43]. Contrary to normal self-care ability, reduced self-care ability will weaken life satisfaction among older people and therefore, reduce their abilities to manage everyday activities. When older people need help to manage everyday activities, it is remarkable to take into account and support their self-care routines, in order to support their ability to function to guarantee the continuity and independence in their lives [41].

In sum, older people's health can be approached from different perspectives. Health is a natural part of life and also go together with ageing. In contrast to reducing health, older peoples' understanding of meaningful health in their own life enables them to have the capacity to qualify and find the ways to manage daily activities by adapting to disabilities and diseases [44]. Understanding of multidimensional views to older people's health makes possible to recognize the individuality of older persons and therefore to find appropriate ways to support their health and everyday life.

4.3 Physical Activity to Enhance a Healthy Lifestyle in Older Adults

Physical activity is one of the building blocks of a healthy lifestyle in older adults. The benefits of regular physical activity in older adults are well documented. Numerous studies show an increase of health-related physical fitness, the prevention of chronic diseases, an improvement in psychosocial health and a decline in all-cause mortality. Still, a substantial number of older adults in Europe do not meet the guidelines of regular physical activity.

4.3.1 Guidelines for Physical Activity of Older Adults

A general consensus has been reached in recent years on the amount and type of physical activity recommended to improve and maintain health [45, 46]. Most

public health recommendations on physical activity in older adults focus on 2 h and 30 min of moderate-intensity aerobic activity (i.e. brisk walking) every week and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms). Aerobic physical activity should be performed in episodes of at least 10 min, preferably spread throughout the week. Those at risk of falling should add exercises that help maintain or improve balance. To support flexibility necessary for regular physical activity in daily life, older adults should perform activities that increase flexibility for at least 10 min on at least 2 days of the week.

For additional health benefits, older adults should engage in 150 min of vigorous-intensity aerobic physical activity per week or an equivalent combination of moderate- and vigorous-intensity activity.

4.3.2 Prevalence of Physical Inactivity in Older Adults

Overall, older adults are less active than younger adults: 19% of the youngest age group does not meet the recommended level of physical activity, compared to 55% of the oldest age group. Overall, the decline in physical activity over 65–84 years is on average 24% [47]. Socio-economic status tends to be directly related to participation in regular physical activity. Poorer people have less free time and less access to leisure facilities or live in environments that do not support physical activity [48].

4.3.3 The Benefits of Physical Activity

Physical activity *is* 'any force exerted by skeletal muscles that results in energy expenditure above resting level' [49]. In older adults health-enhancing physical activity focuses on physical activity that benefits health and functional capacity. Regular or habitual physical activity is actually a way of life that integrates physical activity into daily routines. It comprises a variety of physical activities in daily life, such as walking, cycling and gardening, at a moderate intensity, which is about 3–6 metabolic equivalents (METs). The benefits of regular physical activity in health-related fitness, like physical fitness, the prevention of chronic diseases, psychosocial functioning and reduction of mortality in older adults, are widely demonstrated [50].

4.3.3.1 Health-Related Physical Fitness

The impact on health-related fitness shows benefits in cardiovascular fitness, musculoskeletal fitness, the metabolic syndrome, cognitive functioning and functional capacity. In cardiovascular fitness regular physical fitness shows a significant increase in maximal oxygen consumption (VO2 max) as indicator of aerobic endurance, heart rate, blood pressure, cardiac output and left ventricular function [51]. Effects of regular physical activity on musculoskeletal fitness are found in increased muscle mass and muscle strength and neural adaptation by hypertrophy of type II

muscle fibres, muscle protein synthesis and a significant decline of cytokines like interleukin (IL-6) and tumor necrosis factor-alfa (TNF-α) in older adults [52, 53]. Regular physical activity significantly affects the metabolic syndrome by lowering high rates of central obesity, increasing low levels of high-density lipoprotein cholesterol (HDL) and lowering hypertriglyceridemia and hypertension [54].

Walking, running, swimming and bicycling significantly increase the synthesis and expression of BDNF (brain-derived neurotrophic factor) which is related to beneficial epigenetic changes, hippocampal neurogenesis, synaptic plasticity, working memory and reaction time performance and the modulation of brain glucose metabolism [55–57]. Moderate to higher levels of activity of regular physical activity confer a reduced risk of functional limitations and disability as well as loss of independence in older age [58].

4.3.3.2 The Prevention of Chronic Diseases

Regular physical activity supports the prevention of chronic conditions like cardiovascular diseases, diabetes mellitus (type II DM), cancer (especially colon and breast cancer) and bone and joint diseases (osteoporosis and osteoarthritis) [59]. In cardiovascular diseases, including coronary heart disease, stroke and peripheral vascular disease, an inverse association is found between the level of regular physical activity, cardiovascular fitness and mortality [60]. Review studies have concluded physically active people have a substantially lower overall risk for major coronary events [61]. An inverse association between reported level of physical activity and stroke, in both ischemic stroke and haemorrhagic stroke, is found in review studies [62].

There is evidence that the incidence and progression of type II DM can be reduced with physical activity in older adults with impaired glucose tolerance (IGT) [63]. Physical activity improves blood glucose control in type II DM due to improved insulin sensitivity and halves the risk of developing diabetes [64, 65]. Either aerobic or resistance training improves glycaemic control (HbA1c) in type II DM, but the improvements are greatest combined with aerobic and resistance training [66].

Physical activity is linked to lower risk of cancers [67]. Regular physical activity is associated with a decreased risk of colon adenomas (polyps) that may develop into colon cancer [68]. Data on leisure-time physical activity from prospective cohort studies reported a risk reduction of 16% in colon cancer. In addition, the incidence of both distal and proximal colon cancers is lower in people who are more physically active [69].

Studies in physically active women show a lower risk of breast cancer in both premenopausal and postmenopausal women. A meta-analysis found the average breast cancer risk reduction associated with physical activity was 12% [70]. Women who increase their physical activity after menopause may also have a lower risk of breast cancer [71]. Studies that examined the relationship between physical activity and the risk of endometrial cancer found a risk reduction of 20% [72]. There is evidence that this risk reduction may reflect the effect of physical activity on obesity, a risk factor for endometrial cancer. For a number of other cancers, like liver cancer, gastric cardia cancer (a type of stomach cancer), kidney cancer, myeloid leukaemia,

myeloma, and cancers of the head and neck, rectum, and bladder there is more limited evidence of a relationship with leisure-time physical activity.

Physical activity is essential for maintaining the health of joints and bone density and appears to be beneficial to prevent the onset of osteoarthritis and helps to control symptoms among people with osteoarthritis [73]. Aerobic, weight-bearing and resistance exercise training have been shown to have a positive effect on the bone mineral density (BMD). Moderate physical activity also reduces pain and increases function in patients with osteoarthritis [74].

4.3.3.3 Psychosocial Health

The incidence and progression of a variety of age-related psychological and social health problems, such as loneliness, anxiety, depression and cognitive decline, are related to a lack of regular physical activity. Physical activity is inversely related to depression. A meta-analysis and a Cochrane review showed that regular physical activity has similar efficacy to cognitive behavioural therapy in treating depression [75, 76].

Loneliness increases with ageing. About 40% in the age group 65–74 experience loneliness. It rises to an average of 59% for those over 85 [77]. In older adults loneliness is an independent risk factor for physical inactivity in the short and longer term [78]. There is evidence that physical activity has an impact on the quantity and quality of social relations in older adults [79].

Generalized anxiety is the most common form of anxiety in older adults. In generalized anxiety, there is a constant concern about daily events. Although review studies indicate that ageing has a negative impact on generalized anxiety, the impact of physical activity on anxiety is hardly examined. Physical activity shows limited anxiolytic effects [80, 81]. The explanation for the effect of regular physical activity is based on the endorphin hypothesis which assumes that physical activity promotes the secretion of β-endorphin [82].

Cognitive limitations due to ageing, also referred to as mild cognitive impairment (MCI), are reflected in the deterioration of various cognitive functions such as memory, the speed of information processing, executive tasks and spatial orientation. Studies have shown that physical activity enhances the blood flow and vascular functions of the brain. Moreover, it promotes the production of BDNF, which makes older people less likely to have cognitive and motor problems [83, 84]. Older adults with low socio-economic status have twice as much psychosocial problems as older adults with a higher socio-economic status [85].

4.3.3.4 All-Cause Mortality

Being physically active reduces the risk of all-cause mortality. The largest benefit was found from moving from no activity to low levels of activity, but even at high levels of activity, benefits occur from additional activity. Physical inactivity is estimated to account for nearly 600,000 deaths per year in the WHO European Region [48]. Review studies indicate that at least two to two and a half hours per week of moderate-intensity physical activity is needed to significantly decrease all-cause mortality rates. It appears that walking for at least 2 h per week is also associated

with significantly lower all-cause mortality rates. There is evidence that it may be the overall volume of energy expended—regardless of which activities produce this energy expenditure—that is important to lower the risk of mortality. The inverse relation between physical activity and all-cause mortality appears independent of obesity.

4.3.3.5 Summary

There is a general consensus on the amount and type of physical activity recommended to improve and maintain health. Still, a substantial number of older adults in Europe do not meet the guidelines of regular physical activity. The benefits of regular physical activity in older adults show an increase of health-related fitness like cardiovascular and musculoskeletal fitness, reduced prevalence of metabolic syndrome, increase in cognitive functioning and functional capacity, and the prevention of chronic diseases such as cardiovascular disease, cancer, type II DM and osteoporosis and osteoarthritis. Meeting the physical activity guidelines studies shows improvement in psychosocial health (loneliness, generalized anxiety disorder, mild cognitive impairment and depression) and a decline in all-cause mortality.

4.4 A Healthy Diet for Older Adults

A healthy diet is known to contribute to a healthy lifestyle in all ages. But what exactly is considered a healthy diet? And what topics with respect to food intake are most relevant for older adults?

Briefly, food intake can be described as a combination of what people eat (the foods that are consumed over the day or week) and how and with whom they eat. Foods provide the body with energy and nutrients that are needed to think, breath, move and perform all bodily reactions. A good supply of energy and nutrients is thus of great importance for health. Besides, also the social environment is of great importance to food choices. With age, the social environment tends to change rapidly, which also leads to possible adverse effects in food intake. The topics that are of biggest relevance for the ageing population will be touched upon in this chapter; where applicable concrete recommendations valid for the European population are provided. Please note that dietary and food guidelines may vary between countries and that collecting data on food intake is prone to a lot of difficulties.

4.4.1 Changes in Food Intake with Ageing

Due to a set of physiological aspects, older adults' smell starts to decrease. The smell of a food, whether it is encouraging or warning, is of big importance in the amount of food that is taken. Moreover, also taste diminished over time. This combination leads to a decreased food intake, resulting in a lower energy intake [86]. Due to physiological changes, also production of saliva starts to decrease, making it

more difficult to chew and swallow. On the other side, dysfunction in chewing is suggested to be an epidemiologic risk factor for dementia, and mastication is said to play an important role in preserving the hippocampus-dependent cognitive function [87]. Besides that, also non-optimal intake of vitamin B12 seems to be associated with cognitive decline; although it is not clear whether this is a causal effect [86].

Since a decrease in energy intake is observed in most older adults, it is important to make sure that all nutrients are still sufficiently provided. Therefore, emphasis should be paid to nutrient density of the diet. This is the level of nutritious nutrients per unit of energy. Most unprocessed foods such as meat, potatoes, vegetables, bread and butter will provide a lot of nutrients, whereas processed food such as soft drinks, alcoholic beverages, sweets and cakes will supply a lot of energy and less nutrients.

4.4.1.1 Nutrient Intake in Older Adults over Europe

Until recently, the adequacy of the dietary intake was studied by examining nutrient intakes; only in the last couple of years, the quality and sufficiency of diets are studied by looking at food intakes and preferences. The following micronutrients were shown to have higher risk of inadequate intakes in older adults in Europe: folic acid, selenium, iodine and vitamin C [88]. From another study that was carried out in community-dwelling Western older adults only, also vitamin D, thiamine (vitamin B1), riboflavin (vitamin B2), calcium and magnesium were shown to be inadequate [89].

Due to the heterogeneity in food consumption patterns, it is difficult to provide an overview of differences in food intakes. However, to illustrate the importance of studying food patterns, an example of the Dutch National Food Consumption Survey in community-dwelling older adults (70 years and over) is provided. They consume less wholemeal products, fruit and fish than recommended. Besides that this survey showed a clearly inadequate vitamin D intake, even though about 25% of the women and 20% of the men used dietary supplements containing vitamin D [90].

4.4.1.2 Changes in Body Composition

In an intertwined set of changes going on in the ageing body, also changes in body composition can appear. This is mostly seen as a decline in muscle mass (fat free mass), which is linked to difficulties in activities of the daily living (ADL). Lesser physical activity over the day will lead to lesser weight-bearing activities, contributing—especially when vitamin D and calcium levels are not optimal—to bone loss and increasing the risk for osteoporosis. The latter increases the risk of fractures in falls.

4.4.1.3 Changes in Body Weight

During an adult lifespan, a lot of attention is being paid to body weight, especially with regard to overweight and obesity. With ageing the reduction in fat-free mass is most predominant, though the fat mass also decreased but to a lesser extent. Classifications for weight are globally done by applying the body mass index (kg/m^2) [91].

However, the shrinkage of older adults is due to the fact that their spine is collapsing (kyphosis); thus BMI is no longer a valid measure and needs to be interpreted cautiously. When malnutrition might also be at stake and (unintentional) weight loss might appear, cut-off points for underweight of 20 kg/m^2 (<70 year) or 22 kg/m^2 (≥70 jaar) are suggested instead of 18.5 kg/m^2 for the general adult population [86, 92].

Deficiencies in both vitamins and minerals and also in energy and protein might occur in older age. This situation occurs independent of the body weight. Therefore, malnutrition has been defined as 'a subacute or chronic state of nutrition in which a combination of varying degrees of over- or undernutrition and inflammatory activity has led to a change in body composition and diminished function' [93]. From this definition it is also apparent that malnutrition can occur in people that are obese (body mass index of 20 kg/m^2 or more). Diminished functions refer to cognitive function and immune function.

Assessment of malnutrition varies slightly between countries and is still under discussion. However, the European Society for Clinical Nutrition and Metabolism (ESPEN) indicates malnutrition as having:

1. BMI <18.5 kg/m^2
2. OR weight loss (unintentional) >10% indefinite of time or >5% over the last 3 months combined with BMI <20 kg/m^2 if <70 years of age or <22 kg/m^2 if ≥70 years of age
3. OR weight loss (unintentional) >10% indefinite of time or >5% over the last 3 months combined with FFMI <15 and 17 kg/m^2 in women and men, respectively [92]

where FFMI = fat free mass index = FFM (kg)/body height^2 (m) relating the FFM to the body height, as such taking into account muscle mass. FFM should be measured separately, e.g. skinfold measurement, underwater weighing, air displacement plethysmography, bio-impedance or alike.

Note that before diagnosis of malnutrition is considered, it is mandatory to fulfil criteria for being 'at risk' of malnutrition by any validated risk screening tool [92]. Several validated screening tools for malnutrition are available, for different settings. In Table 4.1 a few examples are depicted.

Table 4.1 Examples of screening tools for malnutrition

Screening tool	Description	Website
PG-SGA	The Scored Patient-Generated Subjective Global Assessment (PG-SGA©) sets the standard of nutritional assessment	http://pt-global.org
MUST	Malnutrition Universal screening tool	www.bapen.org.uk
MNA	Mini Nutritional Assessment, specifically designed for use in elderly	www.mna-elderly.com

4.4.2 Achieving a Healthy Diet: Role of Health and Social Care Professionals

As described before, a whole set of interlinked changes in nutrition (status) and body composition occurs in older age that to a certain extent can be prevented. Several kinds of health and social care professionals can play a role in this. In Table 4.2 the link between the most important nutrients and health are presented in order to give an overview of what to monitor with respect to nutrition from different (professional) points of view. Sometimes a quick fix can be done by any health and

Table 4.2 Overview of link between foods, nutrients and the body and how this can be monitored by several health and social care professionals

Main nutrient	Food	Link to body	Effect	Focus/point of action	Reference intake [94]
Protein	Meat (replacers), dairy, grains, legumes, egg, fish	Decrease in muscle tone	Decrease in ADL	Improve protein intake; perhaps use fortified/enriched foods Improve flavour and palatability	0.83 g/kg BW/d[a]
		Decrease in muscle mass	Malnutrition; Decrease in energy requirement		
Calcium	Dairy products, (milk, cheese, yoghurt)	Bone formation, turnover	Bone loss, osteoporosis, falls/fractures	When low levels, perhaps a calcium supplement is needed	950 (mg/d)[a]
Vitamin D, alpha-tocopherol[b]	Fatty fish	Lower bone turnover and bone loss with sufficient amount		In some countries additional supplementation recommendation or fortification is valid	13 mg/d[c]
Vitamin B12, cobalamin	Animal products (dairy, egg, meat, fish)	Cognition			4.0 µg/d[c]
Fluid intake	Water, drinks, dairy, yoghurt	Hydration; renal function, thirst	Risk of dehydration; vulnerable at high temperatures and with fever, diarrhoea, vomiting, etc.	Active offering by caretaker, since thirst diminished with age Avoid alcoholic beverages	M 2.5 L/d[c] F 2.0 L/d[c]

Partly based on [86]

[a]Population reference intake (PRI)—the level of intake that is sufficient for virtually all people in the population group [94]

[b]Under conditions of assumed minimal cutaneous vitamin D synthesis. In the presence of endogenous cutaneous vitamin D synthesis, the requirement for dietary vitamin D is lower or may be even zero [94]

[c]Average intake (AI)—the level that is estimated when the PRI cannot be established [94]

social care professional, and sometimes a referral to a dietitian is needed. All recommendations presented are valid for a healthy population; in case of illness and disease occurs, other requirements might be more appropriate.

4.4.2.1 Drug Interactions

Most older adults use one or more types of medication, ranging from antihypertensives, diuretics, sleeping pills and psychotropics (with a specific action on mental activity). These types of medication will affect food intake via, i.e. decrease in smell or taste, nausea or obstipation. Besides that medications can also affect the requirements for nutrients, which needs to be taken into account [86].

4.5 Spiritual, Existential Dimension of Healthy Ageing

As explained in previous paragraphs in this chapter, the classic definition of health is changing. Health means more than the absence of diseases, also mental, emotional and social aspects are important. Huber [95] who launched a new definition of health in 2011 describes six dimensions of health derived from interviews with patients, professionals and researchers: physical functioning, mental functions and experiences, spiritual-existential dimension, quality of life, social functioning and participation and daily functioning. In these interviews they found a large variation between the different groups on the spiritual dimension. When it comes to the dimension of spirituality, they found that patients themselves rated this as being significant and more important than did healthcare providers and researchers.

However, spirituality and religion, their impact on health and also the competences of healthcare and social workers in this field have all pretty much been neglected. A study of professionals' views on competences needed for working with older people also revealed that most professionals believed that they did not have sufficient knowledge on how to meet spiritual needs; according to these professionals, questions about faith could be awkward [96]. On the other hand, research suggests that spirituality is important to a large percentage of the older adult population and serves as a promoter of healthy ageing [97, 98]. This gives a reason to explore here the concept of spirituality and its relation to resilience, distress and health.

There is no single shared definition of 'spirituality' and 'spiritual care' [99]; it is differently described by different cultures and religious communities. Spirituality is dealing with existential questions or how to give meaning to life. Historically, spirituality was not distinguished from religiousness until the rise of secularism in the twentieth century. People who do not participate in any formal religion also have a drive to find meaning of their life. Especially when people face their end of life, like older people do, questions of the value or meaning of their life raise. Religion is based on a set of standards of beliefs and practices. A spiritual person believes in a higher power in a more general way and with an eclectic mix of beliefs and practices based on enhancing spiritual awareness.

> 'Spirituality is a dynamic and intrinsic aspect of humanity through which persons seek ultimate meaning, purpose and transcendence, and experience relationship to self, family, others, community, society, nature, and the significant or sacred. Spirituality is expressed through beliefs, values, traditions, and practices' [99].

Spirituality relates to all kinds of beliefs and worldviews. Therefore the number of definitions is high. Spirituality means goal seeking and benefit finding. Religion and spirituality are seen by older people as positive forces that help them face life with more resilience and hope, improve social and familial relationships and cope with life stresses such as financial or health concerns. Another great benefit to older people who belong to a religion or spiritual group is a sense of community. They avoid social isolation; they do volunteer activities that keep them connected with others; they have people who inquire as to their health and well-being with whom they can exchange ideas and information [100]. A spiritual attitude may have positive effects on adaptation of stressful events, on getting older and facing the death. There are positive associations between spirituality and risk for depression and quality of life. Moreover, family caregivers of older people with a spiritual background are less vulnerable for a caregiving burden.

4.5.1 Spirituality and Resilience

When it comes to ageing, spiritual coping has been seen as a resilience resource when navigating the hardships in later life [101]. Resilience in older age is the ability to stand up to adversity and to 'bounce back' or return to a state of equilibrium following individual adverse episodes. For continuing adversity it may be a matter of having the ability, or learning how, to cope with or manage that adversity in the longer term. This has to do with the positive meaning-making framework that spirituality can offer [102]. Factors associated with resilience include hope, morality, self-control and forgiveness [103]. These characteristics are often linked to the spiritual-religious domain.

The concept of resilience is closely related to health. According to the salutogenic theory, stressors will cause harm if they violate an individual's 'sense of coherence'. That sense of coherence is made up of three components:

1. *Comprehensibility*: a belief that things happen in an orderly and predictable fashion and a sense that you can understand events in your life and reasonably predict what will happen in the future
2. *Manageability*: a belief that you have the skills or ability, the support, the help or the resources necessary to take care of things and that things are manageable and within your control
3. *Meaningfulness*: a belief that things in life are interesting and a source of satisfaction that things are really worthwhile and that there is good reason or purpose to care about what happens

Religious meaning-making in highly stressful or traumatic circumstances is common, and research suggests that it is often particularly helpful in dealing with these situations.

4.5.2 Spiritual Distress

Older adults, especially who are suffering from functional decline, mental illness and social isolation, are vulnerable to spiritual distress. Spiritual distress is defined as 'a disruption in the life principle that pervades a person's entire being and that integrates and transcends one's biological and psychological nature' [104]. It is a disturbance in a person's belief system. Manifestations are expressions of discomfort with God or concerns and negative remarks about the kind of life one has lived. Indicators are pain, alienation, guilt, loss and despair. There is a validated instrument to measure someone's state of mind concerning spiritual distress which is called 'Spiritual Well-Being Scale (FACIT-Sp)' [105].

The desired outcome for the patient is spiritual well-being. Interventions for a person with spiritual distress need a relationship which is built on trust. Respect is needed for the religion and worldview of the older person. Show compassion for his suffering. Active listening is important as well as treating older persons as individuals, as human beings. Provide privacy and opportunities for daily praying. Stimulate talking about belief and religious feelings. Support from of a clergyman can be important, but each health and social support professional needs to recognize spiritual distress and needs to be capable to listen actively to existential questions based on a trustful relationship. A more intensive intervention can be a course mindfulness.

With the raising number of immigrants, health and social care workers will meet more people with a different ethnic, religious and cultural background. It is important to show respect for their values and beliefs. Especially for the older immigrants, our society is hard to understand. When they are hospitalized, there is a need for understanding of the role of the family, the preference of females to be helped by females, appropriate diets, and also the availability of the consultation of a clergyman with their specific religious background.

4.6 Ageing, Longevity and Champions: Blue Zones

When talking about healthy ageing, it is also interesting to have a look at people who are successful in ageing. People who reach 100, centenarians, might be able to teach us how to stay healthy, even in their very advanced life. The interest in lifestyle and health of centenarians for healthy ageing is driven by the desire to identify key factors associated with exceptional longevity in humans. What does it take to make it to 100? And has the road to 100 been blessed with better health compared

with others who died at much younger ages? Interestingly there appear to be several regions of the world where people live much longer than average, the so-called blue zones. Before we have a closer look at what we can learn from these places, let us recall the concept of ageing.

4.6.1 Ageing

What are we talking about? Check the scientific literature, and one encounters thousands and thousands of papers on ageing or relating to the process of ageing. Indeed, this figure is growing exponentially over the last decades to well over 20,000 new titles per year since 2014 (PubMed 2017). Apparently, ageing attracts a lot of attention, also in the scientific domain. This is true in the field of economics and human resource management, where the reality of changing sales markets and labour markets is studied to be able to meet future challenges. Likewise, with increasing proportions of older individuals among the population, social conditions and relations cannot but undergo change. And, clearly also finance, other services, real estate and infrastructures have to prepare for the diverse demands of an ageing population.

When we switch to biology, ageing has yet other connotations. Humans and any other metazoic organism go through a process of constant change. As we observe our fellow organisms, we see that from the moment of birth or hatching, they first grow and start showing characteristics and abilities of the matured being. This appearance lasts for some time during which procreation typically occurs. Then, after an era of optimal function, we again may start observing changes. Muscle mass decreases, speed and reflexes decrease, sight and hearing diminish, hair or feathers discolour and fade and wrinkles appear. These phenomena we observed on the outside, but the 'inside' of the organism undergoes similar changes, ultimately leading to progressive loss of function, until remaining functions are no longer compatible with survival. Indeed, we are all conceived with the potential to reach great heights, literally and figuratively. However, things can go wrong as time passes, and eventually will go wrong, and while we are at it we may pass on our genes. Call it destiny. Apart from accidents and other mischief, for some ageing may be accelerated, whereas others seem more fortunate and appear to be blessed with genes for 'immortality'. The ageing organisms go through a period of frailty and dependency on an environment providing the appropriate circumstances for development to subsequently reach their independence and potential for participation, contribution and reproduction and finally lose these capacities to again become frail and dependent. To conclude, one could state: ageing happens to cells, organs, organisms, populations, communities, society and maybe even the world at large.

4.6.2 Living Well

The current era is one of great prosperity and unique in the history of mankind. Never before have so many been around and able to reach exceptional ages. The world population has grown exponentially over the last two centuries, with growth only more recently flattening [106]. Notably, up until only one and half century ago, average life expectancy has been remarkably stable at around 45 years globally. Currently, however, in developed countries this figure has soared to over 80 for women (and slightly less in men). Over the course of a few decades, this figure is expected to steadily increase to well into 90, with half the female population becoming centenarians. Ergo, of all the young women and man now roaming the streets, many will reach (thus far) exceptionally old ages. Nutrition, prevention in terms of public hygiene and safe fresh water supply, mass vaccination, social changes and more recently the advances of modern medicine have contributed to conditions enabling a very long lifespan [107]. And mankind lived happily ever after, or do they?

So far so good it seems, but where is the catch? There are in fact several. For one, health span has not increased at the same pace. Where previously many common non-communicable disorders used to have a fatal outcome or exhibited a rapidly deteriorating condition not compatible with continued survival, nowadays, many of these disorders have indeed converted to chronic conditions. Individuals afflicted may have become life-long 'patients', yet survival is not immediately at stake, nor is quality of life or participation. The successes of modern medicine have broken the typical old age sickness patterns, i.e. a single serious disorder such as cardiovascular disease or cancer, which preludes an imminent death. However, people are becoming older and the risk of multible diseases with loss of function is incrising. At the same time use of healthcare services will increase. Although this is not necessarily equivalent with non-participation or poor perceived quality of life, it does put a strain on individuals and society. Importantly, the increases in lifespan and particularly health span are unequally distributed across socio-economic subgroups and geographically [108]. Those who 'have not' may envy those who 'have', and vice versa, those who have might hold those who have not accountable for their own apparent misfortune. In the meantime, medicine and society have really changed the game of reproduction [106, 109]. Fertility rates (births per women) have halved over the last half century to figures below 2 in many places around the world, i.e. below the replacement rate. In the old days with many young and few old (4 or 5 to 1), the latter becoming frail and dependent was resolved without much strain to society. Nowadays, this so-called old age dependency ratio is dropping to ultimately 2 or less to 1 [110], and that now is something completely different.

The challenge is not ageing as such but to do so healthily and thus remain independent and capable of contributing for a much greater part of the lifespan, i.e. for

health span to catch up with lifespan. Apparently, compared to the average person, individuals identified as master athletes do manage to maintain exceptional health spans [111, 112]. Part of the explanation may be the long period of high level physical exercise and subsequent continued habit of healthy nutrition and exercise. Since, it was not accidental that, alternative explanations such as genes coding for athletic mastery may also contain the code for long health span. Also, for all practical purposes, one might question the feasibility of entire populations rather than exceptional individuals becoming master athletes. Nevertheless, the message that health span is not something fixed and predetermined is crucial.

4.6.3 Blue Zones

Interestingly, there appear to be several unique places around the world where populations rather than specific individuals have achieved the combination of both long lifespan and health span. These places have been casually called 'blue zones' (BZ), simply because they were initially marked on the map with a blue pen [113]. Although seemingly very interesting from a demographic and epidemiologic perspective, reports on studies on BZs are scanty and difficult to compare to mainstream literature. The concept is, however, hugely popularized by Buettner, who first reported on 'The Secrets of Long Life' in the *National Geographic* magazine in 2005.

Blue zone: To be identified as a longevity hotspot, i.e. a location where the number or in fact prevalence of centenarians is extraordinary high, all the administrative data to support alleged claims of extreme longevity have to be scrutinized. Thus far several places with initial claims have been exposed as false, as the records of apparent longevity were based on exaggeration. In the meantime several spots have been documented as places where indeed people appear to live considerably longer than their peers [113, 114]. These BZs (Ogliastra in Sardinia, Okinawa in Japan, the Nicoya peninsula in Costa Rica and the island of Ikaria in Greece) are located around the world in geographically or historically secluded areas, where modern lifestyle and technology had for a long time not or hardly penetrated daily living. Traditional ways of living were either part of local habitat and/or maintained as valued culture. There was no 'grand design' or deliberate manipulation of circumstances according to a theory of healthy living. Rather, BZs may be considered late nineteenth- and early twentieth-century 'natural experiments' that could have taken place anywhere; yet, the favourable circumstances coinciding for long periods of time make them extremely rare. The cohorts born those days in what are now known as BZs had limited reason or opportunity to move to other in hindsight less favourable places. As a result their living conditions and way of life have remained remarkably stable throughout their entire long lives.

The 'secret' emerging, however, seems apparently simple and straightforward. A clear factor is strenuous physical activity maintained at all ages. For the Sardinian men in Ogliastra, this meant walking up and down steep terrain during their generally steadfast agro-pastoral working days. Their peers living in less uneven areas of

Sardinia did not profit from this natural exercise challenge and, correspondingly, reached less exceptional ages. In the other BZs, mechanization of crafts and activities did not occur for this generation, and as a result they too have maintained high levels of manual labour and exertion. Other characteristics the older generations of populations residing in BZs had in common are low levels of stress from social defeat and exclusion, i.e. the type of stress individuals experience due to insubordinate positions and disadvantageous extraneous factors one has no control over. On the contrary, BZs are characterized by inclusive communities where every individual, and his or her contribution, is valued, giving a strong sense of purpose to being. Thus family and community support are omnipresent, the self-determined outlook is positive and stress is low.

Furthermore, moderate calorie intake, traditional diets low on animal protein and saturated fatty acids, while high on locally often self-grown legumes, come with the heritage of BZs. The term Mediterranean diet has gained recognition since the 1960s in the twentieth century, but apparently nutrition wise similarly healthy dietary patterns were common in quite distinct parts of the world now known as BZs [115]. Finally, the lifestyle emerging from the reports on BZs is also clear on alcohol and tobacco. The first is used in moderation, while the latter is alluded to as low. What clearly comes out is the fact that yet exceptional life-long combinations of physical exertion, absence of stress from defeat, social inclusion, a healthy diet and no tobacco seem to do it. Need we say more?

4.6.4 Public Health Implications

BZs came to the attention through an exceptionally high number and/or prevalence of centenarians, who appear to be exceptions to the rule of human longevity. This raises questions about what generalizable principles apply. Also, the course of life of cohort members, the others of their generation, and that of the subsequent generations, the offspring may convey important lessons. In terms of morbidity, members of the same generation, who also remained life-long inhabitants of BZs, appear to have profited from those favourable circumstances as well. Much like the individualistic master athletes mentioned before, they managed to experience long lifespans and health spans with compressed morbidity, albeit not until their 100th birthday [111, 116]. Conversely, those who moved to other areas often did not manage to take along the ‘potion’, nor did many of the next generations who for education, vocation or other reasons moved away and did not manage to maintain the traditional ways but instead diluted those with modern ways of living. As they blend in, so do their life and health courses, which might be interpreted as ruling out or at least reducing the likelihood of a simple genetic predisposition for longevity. Thus, although the secret is simple, the general and enduring implementation thereof at population level is extremely rare and appears to only have come about unintentionally. Indeed, epidemiologic studies conducted during the last half of the twentieth century have time and again corroborated the beneficial effects that individual lifestyle factors so miraculously concurring in BZs have. Simple policies to achieve

changes in single factors have mostly proven futile in the long run, particularly for those in lower socio-economic subgroups who are most vulnerable [117, 118]. So far, effective population health management policies designed to purposefully accomplish a BZ are lacking. Clearly it would take huge political effort and public engagement to attain the changes required in lifestyle and social and economic circumstances. Interestingly, Iceland having launched an audacious nationwide and apparently successful youth health policy sets a remarkably Blue example [119]. Over a period of 20 years, they have managed to reduce drunkenness, smoking and hashish use by a factor of 8, 10 and 8, respectively, i.e. all to levels well below 5% among 15- and 16-year-old students.

In conclusion, it seems fair to conclude that BZs are fascinating natural experiments that deserve more study, particularly with regard to the 'natural' way a healthy constellation of lifestyle and social factors came about and was maintained. Many public health interventions and experiments have started from notions about highly prevalent risk factors, and how to reduce these through individual or population based approaches. The effects on narrowing the gap between lifespan and health span were mixed, particularly for lower socio-economic subgroups. Importantly, a single 'silver bullet' has never been identified and most likely never will. The making of a BZ will take long-term commitment and huge multifaceted effort, but everyone can start, and paraphrasing Gandhi 'we could try to be the change we wish to see in the world'.

References

1. World Health Organization. WHO definition of health. The preamble of the Constitution of the World Health Organization; 1948. https://doi.org/10.1016/B978-012466044-1/50296-9.
2. Huber M, Knottnerus JA, Green L, Horst H v d, Jadad AR, Kromhout D, Leonard B, Lorig K, Loureiro MI, van der Meer JWM, Schnabel P, Smith R, Weel C v, Smid H. How should we define health? Br Med J. 2011;343:d4163. https://doi.org/10.1136/bmj.d4163.
3. Sturmberg JP. The personal nature of health. J Eval Clin Pract. 2009;15:766. https://doi.org/10.1111/j.1365-2753.2009.01225.x.
4. Bengel J, Strittmatter R, Willmann H. What keeps people healthy? The current state of discussion and the relevance of Antonvsky's salutogenetic model of health. Cologne: Federal Centre for Health Education—FCHE; 1998.
5. Madden R, Ferreira M, Einfeld S, Emerson E, Manga R, Refshauge K, Llewellyn G. New directions in health care and disability: the need for a shared understanding of human functioning. Aust N Z J Public Health. 2012;36:458–61. https://doi.org/10.1111/j.1753-6405.2012.00889.x.
6. Stein MA, Stein PJS, Weiss D, Lang R. Health care and the UN disability rights convention. Lancet. 2009;374:1796–8.
7. Sturmberg J, Martin C, Moes M. Health at the center of health systems reform: how philosophy can inform policy. Perspect Biol Med. 2010;53:341–56.
8. Wade DT, Halligan P. New wine in old bottles: the WHO ICF as an explanatory model of human behaviour. Clin Rehabil. 2003;17:349–54. https://doi.org/10.1191/0269215503cr619ed.
9. Antonovsky A. Unraveling the mystery of health. How people mange stress and stay well. 1st ed. San Francisco, CA: Jossey-Bass; 1987.

10. Adler RH. Engel's biopsychosocial model is still relevant today. J Psychosom Res. 2009;67:607–11. https://doi.org/10.1016/j.jpsychores.2009.08.008.
11. Eriksson M, Lindström B. Validity of Antonovsky's sense of coherence scale: a systematic review. J Epidemiol Community Health. 2005;59:460–6. https://doi.org/10.1136/jech.2003.018085.
12. Tan KK, Chan SWC, Wang W, Vehviläinen-Julkunen K. A salutogenic program to enhance sense of coherence and quality of life for older people in the community: a feasibility randomized controlled trial and process evaluation. Patient Educ Couns. 2016;99:108–16. https://doi.org/10.1016/j.pec.2015.08.003.
13. Antonovsky A. The salutogenic model as a theory to guide health promotion. Health Promot Int. 1996;11:11–8.
14. Becker CM, Glascoff MA, Felts WM. Salutogenesis 30 years later: where do we go from here? Origins of Salutogenesis. Int Electron J Health Educ. 2010:25–32.
15. Lezwijn J, Vaandrager L, Naaldenberg J, Wagemakers A, Koelen M, van Woerkum C. Healthy ageing in a salutogenic way: building the HP 2.0 framework. Health Soc Care Community. 2011;19:43–51. https://doi.org/10.1111/j.1365-2524.2010.00947.x.
16. Zeyer A. Salutogenesis and pathogenesis - a change of paradigm viewed from the standpoint of modern physics. Sozial-Und Praventivmedizin. 1997;42:380–4. https://doi.org/10.1007/Bf01318613.
17. Engel GL. The clinical application of the biopsychosocial model. Am J Psychiatry. 1980;137:535–44.
18. Engel GL. The need for a new medical model: a challenge for biomedicine. Science. 1977;196:129–36.
19. Wade DT, Halligan PW. The biopsychosocial model of illness: a model whose time has come. Clin Rehabil. 2017;31:995–1004. https://doi.org/10.1177/0269215517709890.
20. World Health Organization, editor. International classification of functioning, disability and health: ICF. 1st ed. Geneva: World Health Organization; 2001.
21. World Health Organization. International statistical classification of diseases and related health problems. 10th Revision (ICD-10). Geneva: World Health Organization; 1992.
22. Bickenbach J, Cieza A, Rauch A, Stucki G. ICF Core Sets; manual for clinical practice. 1st ed. Göttingen: Hogrefe; 2012.
23. Muller R, Geyh S. Lessons learned from different approaches towards classifying personal factors. Disabil Rehabil. 2015;37:430–8. https://doi.org/10.3109/09638288.2014.923527.
24. Lollar DJ, Simeonsson RJ. Diagnosis to function: classification for children and youths. J Dev Behav Pediatr. 2005;26:323–30.
25. Steiner WA, Ryser L, Huber E, Uebelhart D, Aeschlimann A, Stucki G. Use of the ICF model as a clinical problem-solving tool in physical therapy and rehabilitation medicine. Phys Ther. 2002;82:1098–107.
26. Chen H, Katz PP, Eisner MD, Yelin EH, Blanc PD. Health-related quality of life in adult rhinitis: the role of perceived control of disease. J Allergy Clin Immunol. 2004;114:845–50. https://doi.org/10.1016/j.jaci.2004.07.008.
27. Sharma L, Cahue S, Song J, Hayes K, Pai YC, Dunlop D. Physical functioning over three years in knee osteoarthritis—role of psychosocial, local mechanical, and neuromuscular factors. Arthritis Rheum. 2003;48:3359–70. https://doi.org/10.1002/art.11420.
28. Stallinga, H.A. Human functioning in health care. Application of the International Classification of Functioning, Disability and Health (ICF). Groningen: University of Groningen; 2015.
29. Stucki G, Grimby G. Applying the ICF in medicine. J Rehabil Med. 2004;36:5–6.
30. Kostanjsek N. Use of the International Classification of Functioning, Disability and Health (ICF) as a conceptual framework and common language for disability statistics and health information systems. BMC Public Health. 2011;11(Suppl 4):S3.
31. Spreyermann R, Luethi H, Michel F, Baumberger ME, Wirz M, Maeder M. Long-term follow-up of patients with spinal cord injury with a new ICF-based tool. Spinal Cord. 2011;49:230–5. https://doi.org/10.1038/sc.2010.93.

32. Jeune B, Bronnum-Hansen H. Trends in health expectancy at age 65 for various health indicators, 1987–2005, Denmark. Eur J Ageing. 2008;5:279–85.
33. Sherman H, Forsberg C, Karp A, Tornkvist L. The 75-year-old persons' self-reported health conditions: a knowledge base in the field of preventive home visits. J Clin Nurs. 2012;21:3170–82.
34. Kim SH. Older people's expectations regarding ageing, health-promoting behaviour and health status. J Adv Nurs. 2009;65:84–1.
35. Kim S-Y, Sok SR. Relationships among the perceived health status, family support and life satisfaction of older Korean adults. Int J Nurs Pract. 2012;18:325–31.
36. Wu T-Y, Chie W-C, Kuo K-L, Wong W-K, Liu J-P, Chiu S-T, Cheng Y-H, Netuveli G, Blane D. Quality of life (QOL) among community dwelling older people in Taiwan measured by the CASP-19, an index to capture QOL in old age. Arch Gerontol Geriatr. 2013;57:143–50.
37. Netuveli G, Wiggins RD, Hildon Z, Montgomery SM, Blane D. Quality of life at older ages: evidence from the English longitudinal study of aging (wave 1). J Epidemiol Community Health. 2006;60:357–63.
38. Hsu HC, Tung HJ. What makes you good and happy? Effects of internal and external resources to adaptation and psychological well-being for the disabled elderly in Taiwan. Aging Ment Health. 2010;14:851–60.
39. Sims RV, Ahmed A, Sawyer P, Allman RM. Self-reported health and driving cessation in community-dwelling older drivers. J Gerontol A Biol Sci Med Sci. 2007;62:789–93.
40. Rodriquez-Blazquez C, Forjaz MJ, Prieto-Flores M-E, Rojo-Perez F, Fernandez-Mayoralas G, Martinez-Martin P. Health status and well-being of older adults living in the community and in residential care settings: are differences influenced by age? Aging Ment Health. 2012;16:884–91.
41. Cohen-Mansfield J, Jensen B. Adequacy of spouses as informants regarding older persons' self-care practices and their perceived importance. Fam Syst Med. 2007;25:53–67.
42. Janlov AC, Hallberg I, Petersson K. Care managers' view of family influence on needs assessment of older people. Scand J Caring Sci. 2011;25:243–52.
43. Hoy B, Wagner L, Hall EOC. Self-care as health resource of elders: an integrative review of the concept. Scand J Caring Sci. 2007;21:456–66.
44. Donahue M, Piazza I, Griffin M, Dykes PC, Fitzpatrick JJ. The relationship between nurses′ perceptions of empowerment and patient satisfaction. Appl Nurs Res. 2008;21:2–7.
45. American College of Sports Medicine, Chodzko-Zajko WJ, Proctor DN, Fiatarone Singh MA, Minson CT, Nigg CR, et al. American College of Sports Medicine position stand. Exercise and physical activity for older adults. Med Sci Sports Exerc. 2009;41(7):1510–30.
46. World Health Organization. Global recommendations on physical activity for health. Geneva: WHO; 2010.
47. Sun F, Norman IJ, While AE. Physical activity in older people: a systematic review. BMC Public Health. 2013;13(6):449.
48. Cavill N, Kahlmeier S, Racioppi F. Physical activity and health in Europe: evidence for action. Copenhagen: WHO; 2006.
49. Bouchard C, Shepard RJ. Physical Activity, fitness and health: the model and key concepts. In: Bouchard C, Shepard RJ, Stevens T, editors. Physical activity, fitness and health: International Proceedings and Consensus Statement. Champaign, IL: Human Kinetics; 1994.
50. Warburton DE, Nicol CW, Bredin SS. Health benefits of physical activity: the evidence. CMAJ. 2006;174:801–9.
51. Theou O, Stathokostas L, Roland KP, Jakobi JM, Patterson C, Vandervoort AA, et al. The effectiveness of exercise interventions for the management of frailty: a systematic review. J Aging Res 2011:569194.
52. Mangione KK, Miller AH, Naughton IV. Cochrane review: improving physical function and with progressive resistance strength training in older adults. Phys Ther. 2010;90(12):1711–5.
53. Lambert CP, Wright NR, Finck BN, Villareal DT. Exercise but not diet-induced weight loss decreases skeletal muscle inflammatory gene expression in frail obese elderly persons. J Appl Physiol. 2008;105(2):473–8.

54. Yamaoka K, Tango T. Effects of lifestyle modification on metabolic syndrome: a systematic review and meta-analysis. BMC Med. 2012;10:138.
55. Kramer AF, Hahn S, Cohen NJ, Banich MT, McAuley E, et al. Aging, fitness and neurocognitive function. Nature. 1999;400:418–9.
56. Colcombe S, Kramer AF. Fitness effects on the cognitive function of older adults: a meta-analytic study. Psychol Sci. 2003;14:125–30.
57. Dougherty RJ, et al. Moderate physical activity is associated with cerebral glucose metabolism in adults at risk for Alzheimer's disease. J Alzheimers Dis. 2017;58:1089–97.
58. Paterson DH, Warburton DER. Physical activity and functional limitations in older adults: a systematic review related to Canada's physical activity guidelines. J Behav Nutr Phys Act. 2010;7:38.
59. Nunan D, Mahtani KR, Roberts N, Heneghan C. Physical activity for the prevention and treatment of major chronic disease: an overview of systematic reviews. Syst Rev. 2013;2:56.
60. Foster C, Hillsdon M, Thorogood M, Kaur A, Wedatilake T. Interventions for promoting physical activity. Cochrane Database Syst Rev. 2005;(1):CD003180.
61. Shiroma EJ, Lee IM. Physical activity and cardiovascular health lessons learned from epidemiological studies across age, gender, and race/ethnicity. Circulation. 2010;122:743–52.
62. Howard VJ, McDonnell MN. Physical activity in primary stroke prevention, Just Do It! Stroke. 2015;46:1735–9.
63. Tuomilehto J, Lindstrom J, Eriksson JG, Valle TT, Hamalainen H, Ilanne-Parikka P, Keinanen-Kiukaanniemi S, Laakso M, Louheranta A, Rastas M, Salminen V, Uusitupa M. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. N Engl J Med. 2001;344:1343–50.
64. Boule NG, Haddad E, Kenny GP, Wells GA, Sigal RJ. Effects of exercise on glycemic control and body mass in type 2 diabetes mellitus: a meta-analysis of controlled clinical trials. J Am Med Assoc. 2001;286(10):1218–27.
65. Gillies CL, Abrams KR, Lamber PC, Coope NJ, Sutton AJ, Hsu RT, Khunti K. Pharmacological and lifestyle interventions to prevent or delay type 2 diabetes in people with impaired glucose tolerance: systematic review and meta-analysis. BMJ. 2007;334:299–302.
66. Thomas D, Elliot EJ, Naughton GA. Exercise for type 2 diabetes mellitus. Cochrane Database Syst Rev. 2006;(3):CD002968.
67. Moore SC, Lee IM, Weiderpass E, et al. Association of leisure-time physical activity with risk of 26 types of cancer in 144 million adults. JAMA Intern Med. 2016;176(6):816–25.
68. Wolin KY, Yan Y, Colditz GA. Physical activity and risk of colon adenoma: a meta-analysis. Br J Cancer. 2011;104(5):882–5.
69. Boyle T, Keegel T, Bull F, Heyworth J, Fritschi L. Physical activity and risks of proximal and distal colon cancers: a systematic review and meta-analysis. J Natl Cancer Inst. 2012;104(20):1548–61.
70. Wu Y, Zhang D, Kang S. Physical activity and risk of breast cancer: a meta-analysis of prospective studies. Breast Cancer Res Treat. 2013;137(3):869–82.
71. Fournier A, Dos Santos G, Guillas G, et al. Recent recreational physical activity and breast cancer risk in postmenopausal women in the E3N cohort. Cancer Epidemiol Biomark Prev. 2014;23(9):1893–902.
72. Schmid D, Behrens G, Keimling M, et al. A systematic review and meta-analysis of physical activity and endometrial cancer risk. Eur J Epidemiol. 2015;30(5):397–412.
73. Roos EM, Arden NK. Strategies for the prevention of knee osteoarthritis. Nat Rev Rheumatol. 2006;12:92–101.
74. Veenhof C, Huisman PA, Barten JA, Takken T, Pisters MF. Factors associated with physical activity in patients with osteoarthritis of the hip or knee: a systematic review. Osteoarthr Cartil. 2012;20(1):6–12.
75. Daley A. Exercise and depression: a review of reviews. J Clin Psychol Med Settings. 2008;15(2):140–7.
76. Mead GE, Morley W, Campbell P, Greig CA, McMurdo M, Lawlor DA. Exercise for depression. Cochrane Database Syst Rev. 2009;(3):CD004366.

77. Pels F, Kleinert J. Loneliness and physical activity: a systematic review. Int Rev Sport Exerc Psychol. 2016;9(1):231–60.
78. Hawkley LC, Thisted RA, Cacioppo JT. Loneliness predicts reduced physical activity: cross-sectional & longitudinal analyses. Health Psychol. 2009;28(3):354–63.
79. Hagan R, Manktelow R, Taylor BJ, Mallett J. Reducing loneliness amongst older people: a systematic search and narrative review. Aging Ment Health. 2014;18:683–93.
80. Stonerock GL, Hoffman BM, Smith PJ, Blumenthal JA. Exercise as treatment for anxiety: systematic review and analysis. Ann Behav Med. 2015;49(4):542–56.
81. Vicki S, Conn VS. Anxiety outcomes after physical activity interventions: meta-analysis findings. Nurs Res. 2010;59(3):224–31.
82. Bartley CA, Hay M, Bloch MH. Meta-analysis: aerobic exercise for the treatment of anxiety disorders. Prog Neuro-Psychopharmacol Biol Psychiatry. 2013;45:34–9.
83. Nagamatsu LS, Handy TC, Hsu CL, Voss M, Liu-Ambrose T. Resistance training promotes cognitive and functional brain plasticity in seniors with probable mild cognitive impairment. Arch Intern Med. 2012;172:666.
84. Sleiman SF, Rami Al-Haddad HJ, El Hayek L, Haidar EA, Stringer T, Ulja D, Karuppagounder SS, Holson EB, Ratan RR, Ninan I, Chao MV. Exercise promotes the expression of brain derived neurotrophic factor (BDNF) through the action of the ketone body **β**-hydroxybutyrate. Elife. 2016;5:e15092.
85. Adamson JA, Ebrahim A, Hunt K. The psychosocial versus material hypothesis to observed inequalities in disability among older adults: data from the west of Scotland Twenty-07 study. J Epidemiol Community Health. 2006;60:974–80.
86. de Groot CPGM, Haveman-Nies A, van de Rest O. Voeding. In: Bijblijven, vol. 33. Houten: BSL; 2017. p. 379–90. https://doi.org/10.1007/s12414-017-0239-5-379.
87. Chen H, Iinuma M, Onozuka M, Kubo K-Y. Chewing maintains hippocampus-dependent cognitive function. Int J Med Sci. 2015;12:502–9. https://doi.org/10.7150/ijms.11911.
88. Viñas BR, Barba LR, Ngo J, Gurinovic M, Novakovic R, Cavelaars A, de Groot LCPGM, van't Veer P, Matthys C, Majem LS. Projected prevalence of inadequate nutrient intakes in Europe. Ann Nutr Metab. 2011;59:84–95. https://doi.org/10.1159/000332762.
89. ter BS, Verlaan S, Hemsworth J, Mijnarends DM, Schols JMGA, Luiking YC, de Groot LCPGM. Micronutrient intakes and potential inadequacies of community-dwelling older adults: a systematic review. Br J Nutr. 2015;113:1195–206. https://doi.org/10.1017/S0007114515000203.
90. Ocké MC, Buurma-Rethans EJM, de BEJ, Wilson-van den Hooven C, Etemad-Ghameshlou Z, Drijvers JJMM, Van Rossum CTM. Dutch National Food Consumption Survey Older adults 2010–2012. Bilthoven: RIVM; 2013.
91. Body Mass Index—BMI [document on the Internet]. World Health Organisation; 2018. http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/a-healthy-lifestyle/body-mass-index-bmi. Accessed 27 Apr 2018.
92. Cederholm T, Bosaeus I, Barazzoni R, Bauer J, van Gossum A, Klek S, Muscaritoli M, Nyulasi I, Ockenga J, Schneider SM, vander Schueren MAE, Singer P. Diagnostic criteria for malnutrition. An ESPEN Consensus Statement. Clin Nutr. 2015;34:335–40. https://doi.org/10.1016/j.clnu.2015.03.001.
93. Soeters PB, Reijven PL, van Bokhorst-de van der Schueren MA, Schols JM, Halfens RJ, Meijers JM, van Gemert WG. A rational approach to nutritional assessment. Clin Nutr. 2008;27:706–16.
94. Overview on Dietary Reference Values for the EU population as derived bythe EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA).Summary of Dietary Reference Values—version 4 (September 2017) [document on the Internet]. European Food Safety Authority; 2017. http://www.efsa.europa.eu/en/topics/topic/dietary-reference-values-and-dietary-guidelines. Accessed 27 Apr 2018.
95. Huber M, van Vliet M, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, Knottnerus JA. Towards a 'patient-centred'operationalisation of the new dynamic concept of health: a mixed methods study. BMJ Open. 2016;6(1):e010091.

96. Manning LK. Navigating hardships in old age: exploring the relationship between spirituality and resilience in later life. Qual Health Res. 2013;23(4):568.
97. Wallace M, O'shea E. Perceptions of spirituality and spiritual care among older nursing home residents at the end of life. Holist Nurs Pract. 2007;21(6):285–9.
98. Felsmann M, Andruszkiewicz A. The opinions of health and social care professionals on important competences in caring for older people. European later life active network. 2016. www.ellan.savonia.fi.
99. World Health Organization Definition of Palliative Care. http://www9.
100. McSherry W, Ross L, editors. Spiritual assessment in healthcare practice. Keswick: M&K Update; 2010.
101. Puchalski CM, Vitillo R, Hull SK, Reller N. Improving the spiritual dimension of whole person care: reaching national and international consensus. J Palliat Med. 2014;17(6):642–56.
102. http://seniorsmatter.com/religion-spirituality-older-people/.
103. Park CL. Implicit religion and the meaning making model. Implicit Religion. 2011;14(4):405–19.
104. Carpenito-Moyet LJ. Handbook of nursing diagnosis. 15th ed. Philadelphia: Lippincott Williams and Wilkins; 2016. ISBN: 9781496338396.
105. Peterman AH, Reeve CL, Winford EC, Cotton S, Salsman JM, McQuellon R, Tsevat J, Campbell C. Measuring meaning and peace with the FACIT-spiritual well-being scale: distinction without a difference? Psychol Assess. 2014;26(1):127–37. https://doi.org/10.1037/a0034805. Epub 2013 Nov 4.
106. https://ourworldindata.org/world-population-growth/.
107. Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. Lancet. 2009;374(9696):1196–208.
108. Asaria M, Doran T, Cookson R. The costs of inequality: whole-population modelling study of lifetime inpatient hospital costs in the English National Health Service by level of neighbourhood deprivation. J Epidemiol Community Health. 2016;70(10):990–6.
109. The World Bank. https://data.worldbank.org/indicator/SP.DYN.TFRT.IN/?view=map.
110. Old age dependency ratio (+65/15-64). European Commission. European Union pensions policy. 2014.
111. Lazarus NR, Harridge SDR. Inherent ageing in humans: the case for studying master athletes. Scand J Med Sci Sports. 2007;17(5):461–3.
112. Hewit J. How to grow old like an athlete. World Economic Forum; 2017.
113. Poulain M, Herm A, Pes G. The blue zones: areas of exceptional longevity around the world. Vienna Yb Pop Res. 2013;11:87–108.
114. Poulain M, Pes GM, Grasland C, Carru C, Ferucci L, Baggio G, Franceschi C, Deiana L. Identification of a geographic area characterized by extreme longevity in the Sardinia Island: the AKEA study. Exp Gerontol. 2004;39(9):1423–9.
115. Willett WC, Sacks F, Trichopoulou A, Drescher G, Ferro-Luzzi A, Helsing E, Trichopoulos D. Mediterranean diet pyramid: a cultural model for healthy eating. Am J Clin Nutr. 1995;61(6):1402S–6S.
116. Pes GM, Tolu F, Poulain M, Errigo A, Masala S, Pietrobelli A, Battistini NC, Maioli M. Lifestyle and nutrition related to male longevity in Sardinia: an ecological study. Nutr Metab Cardiovasc Dis. 2013;23(3):212–9.
117. Woodward A, Kawachi I. Why reduce health inequalities? J Epidemiol Community Health. 2000;54:923–9.
118. Hillier-Brown FC, Bambra CL, Cairns J-M, Kasim A, Moore HJ, Summerbell CD. A systematic review of the effectiveness of individual, community and societal level interventions at reducing socioeconomic inequalities in obesity amongst children. BMC Public Health. 2014;14:834.
119. Sigfusdottir ID, Kristjansson AL, Thorlindsson T, Allegrante JP. Trends in prevalence of substance use among Icelandic adolescents, 1995–2006. Subst Abuse Treat Prev Policy. 2008;3:12.

Trends and Developments in Health-Care and Social Services

5

Irma Mikkonen, Panayota Sourtzi, Riitta Turjamaa, Marja Äijö, Eeva-Riitta Ylinen, Evelyn J. Finnema, and Job T. B. van 't Veer

5.1 Disease Prevention Targeting Older People

Health and well-being promotion as well as disease prevention are an important part of health-care and social services also in older people's lives in all settings. As was mentioned in the introduction of this chapter, focusing on health and well-being promotion and disease prevention for older people supports enhancing health and well-being of older people as well as enabling efficient use of resources in health-care and social services. Different kinds of approaches and interventions are used to increase people's well-being and prevent diseases as well as reduce health costs. These interventions are traditionally targeted towards younger people as those who have more years of life ahead and can benefit from prevention activities for longer period of time. However, while the population is ageing in Europe, health and well-being promotion and disease prevention for older people is more and more important as it may bring variety of social benefits. Several kinds of methods are used in health promotion and disease prevention [1–3].

I. Mikkonen (✉) · R. Turjamaa · E.-R. Ylinen · M. Äijö
School of Health Care, Savonia University of Applied Sciences, Kuopio, Finland
e-mail: riitta.turjamaa@savonia.fi; eeva-riitta.ylinen@savonia.fi; marja.aijo@savonia.fi

P. Sourtzi
Department of Nursing, Sector of Public Health, School of Health Sciences, National and Kapodistrian University of Athens, Athens, Greece
e-mail: psourtzi@nurs.uoa.gr

E. J. Finnema · J. T. B. van 't Veer
Research Group Care and Wellbeing, NHL Stenden University of Applied Sciences, Leeuwarden, The Netherlands
e-mail: evelyn.finnema@nhl.nl; j.van.het.veer@nhl.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_5

5.1.1 Definitions of Health Promotion and Disease Prevention

Health promotion is defined by WHO to be the process of enabling people to enhance control over as well as improve their health [4, 5]. Whereas in the definition made by WHO, the aim of disease prevention is to minimize the burden caused by different diseases and associated risk factors. Thus, disease prevention approaches aim both to prevent the occurrence of disease, for example, by reducing risk factors, and stop to progress and reduce its consequences [4]. Prevention will take place both on population and individual levels. Often, disease prevention is divided into three different approaches: primary disease prevention is aimed at preventing the onset of disease, secondary prevention is meant to control the disease before it manifests clinically, and tertiary prevention is focused on decreasing the impact of a disease on the person's life as well as to support to manage with it. All these contribute to reducing the risk of disabilities. The concepts of disease prevention and health promotion are close to each other and share many goals, and there is considerable overlap between functions. According to the definition of WHO, the concepts can be differentiated on a conceptual level: health promotion activities are those that require and are based on inter-sectoral actions and are concerned with the social determinants of health, whereas disease prevention measures are primarily concentrated on the health-care sector.

5.1.2 Forms of Disease Prevention

As health, well-being and healthy lifestyle are discussed in the previous chapters dealing with ageing and healthy ageing, this section focuses on disease prevention related to older adults.

Chronic diseases (non-communicable diseases), such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are the leading cause of mortality in Europe, representing 77 percent of the total disease burden and 86 percent of all deaths. These diseases are linked by common risk factors, underlying determinants and opportunities for intervention [2]. Tackling four major risk behaviours—smoking, alcohol abuse, unhealthy diet and sedentary lifestyle—can help prevent many chronic diseases. But to be effective, such efforts need to be based on targeted health promotion, prevention and early detection. According to the EU commission, it is important to involve and integrate all the levels from communities to policy makers to address the challenge of chronic diseases. In addition, environmental and social determinants play an important role in the development of chronic diseases [6]. Primary care has an important role in the prevention of non-communicable diseases (see Sect. 5.3). Integrating prevention interventions into primary care is said to be one of the major strategies to improve outcomes [2, 7].

Moreover, when older people are concerned in disease prevention, it is important to remember that older people are a heterogeneous group of adults. The same health and well-being promotion and disease prevention approaches directed to adults are often effective as well with older adults [6]. However, because older people are not

one homogeneous group, often more individualized approaches taking into account the older people' s needs are necessary [8]. With older people, it is important that health and well-being promotion and disease prevention programmes also take into account supporting the older people's functional ability and quality of life. Interventions that create supportive environments and foster healthy choices are important at all stages of life. Furthermore, with older people, specific programmes to prevent, for example, frailty and falls as well as social isolation are important [6, 9, 10].

Indeed, it is important to adapt interventions to individuals and their levels of capacity. When ageing, many individuals will experience periods of high and stable capacity, declining capacity and a significant loss of capacity. Each of these three periods requires different interventions in order to response to each individual's needs. However, though age increases the risk of many chronic conditions, the presence of a disease in older age does not mean that the older adults could not feel to be fit and healthy; they may experience high levels of well-being despite the presence of one or more diseases and disability and frailty [8, 10].

Disease prevention strategies and approaches can be defined and categorized in many different ways. Here we discuss preventive approaches in older people's services presented by Allen and Glasby [1]. One of the main sources in their commentary was a European Union (EU) review of prevention and long-term care in older people's services across 14 European countries (known as Interlinks—see http://interlinks.euro.centre.org/project) thus representing a European viewpoint though using a national perspective of England. Consequently, ten preventive approaches in older people's services will be discussed. These approaches are the following: promoting healthy lifestyles, vaccination, screening, falls prevention, housing adaptations and practical support, telecare and technology, intermediate care, reablement, partnership working between health and social care and personalization.

5.1.2.1 Promoting Healthy Lifestyles

The promotion of older people's health and well-being includes physical activity, diet, substance consumption and social engagement. Social and health-care professionals, in their respective roles, may act as health and well-being advocates for older persons by helping and supporting them to maintain and improve physical, psychological and social well-being through education and promotion of health behaviours. Because most of the diseases in older age are due to non-communicable diseases, risk factors for these conditions are important targets in promoting healthy lifestyle. Approaches and interventions to reduce the burden of disability and mortality in older age by enabling healthy behaviours and controlling metabolic risk factors should continue throughout the person's life [1, 2].

5.1.2.2 Vaccination

Older people may be at increased risk of serious illness or death resulting from certain common infections because the immune function decreases with age, leading to more severe and more frequent infections. Moreover, older people may have not received immunizations in younger years, and some newer vaccines may not have been available to them when they were children. Consequently, the best way of

protecting older people from serious infections is to be vaccinated against them. Three common but potentially dangerous diseases that older people should be vaccinated against are influenza, pneumococcal disease and shingles (herpes zoster). In addition, boosters may also be recommended for immunity that decreases rapidly with age. The most important of these are boosters against tetanus and diphtheria, and these are also recommended for older people in many countries [1].

Because these above-mentioned diseases pose particular health risks to older people in terms of the high risk of developing serious complications, it is very important that health professionals make an effort to inform and educate older people of the need to protect themselves against certain diseases, such as influenza, pneumococcal pneumonia and tetanus [1]. Also in vaccination programmes of different European countries, the same principles as in recent social and health care in general should be emphasized, such as life-course approach involving older population as well as empowerment of people enabling them, for example, to have access and be aware of the benefits of vaccination [11].

5.1.2.3 Screening

Screening is the systematic application of a test to identify individuals at risk of a specific disease. Medical screening and screening programmes can allow early diagnosis and intervention and thus prevent disability and death as well as improve quality of life. There are screening tests available for some chronic diseases [7]. Examples of testing are breast screening, cervical screening, screening for depression, functional testing and sensory testing. Screening includes also ethical questions related to, for example, in what age the costs and harms outweigh the benefits [1]. There is evidence that in the primary care, screening for specific conditions can be a potentially useful tool in identifying those in need of interventions to promote health and well-being or prevent disease [7].

5.1.2.4 Fall Prevention

Falls increase with age-related biological change, and they are prominent among the external causes of unintentional injury among older population (see Sect. 3.2). The serious physical injuries often sustained in falls can lead to associated decline in confidence and mental health as well as further physical complications and thus for decline in quality of life [12, 13]. The frequency of falls increases with age and frailty level. Falls and consequent injuries are major public health problems that often require medical attention. Falls occur as a result of a complex interaction of risk factors. The main risk factors reflect the multitude of health determinants that directly or indirectly affect well-being. Those are categorized into four categories [13]: biological, behavioural, environmental and socioeconomic factors.

Part of biological factors, for example, age, gender and race are non-modifiable. Biological factors are also associated with changes due to ageing such as the decline of physical, cognitive and affective capacities and the comorbidity associated with chronic illnesses. Instead, behavioural risk factors are at least partly modifiable as they are related to behaviour, emotions or daily choices. An example

of these is excess alcohol use. Environmental factors as cause of falling take place as the interplay of older person's physical conditions and the surrounding environment. These can happen both at home and public environment because of, for example, poor environment design, slippery floors or poor lightning. The fourth risk factors are socioeconomic which are related to social conditions and economic status of older population as well as the capacity of the community. These are such as low income, inadequate housing as well as limited access to health and social care [13].

As the reasons for older people's falls are often related to behaviour or environment, consequently, protective factors for older people's falls are related to behavioural change and environmental modification. The research suggests that a key factor to avoid falls is healthy lifestyle. The similar factors as discussed in health promotion are non-smoking, moderate alcohol consumption, normal weight as well as physical and social activity [13]. When investigating older people's motivation to participate in fall prevention interventions, Dickinson and colleagues found that motivating factors were personal invitation and discussion with the older adult as well as mass media campaigns [12].

5.1.2.5 Housing Adaptations and Practical Support

Appropriate and safe housing is a key aspect of a community's built environment. It can have an enormous impact on such aspects of daily life as mobility and safety (from crime and injury). Housing is also inextricably linked to other domains. For example, if housing is adequate and affordable, and allows for older population to age in place, there may be lower needs for some community support services [1].

Many older people in European countries prefer to live independently and stay in control of their lives for as long as possible. However, often ageing causes increasingly challenges and problems in health. Consequently, older adults require care and services at home. Developing services and access to funding for improvements to older people's homes has scope to promote autonomy, prevent illness and reduce demands on both families and formal services. As people age, some will want to stay at home, while others will want to move. Some will prefer to live with people of a similar age, while others will seek mixed age communities. The design and modification of housing and transport systems as well as assistive technologies in the home and more widely are very important in supporting the older people's safe housing. Regional, municipal and local government are key partners here, since they are usually responsible for these services on the ground [14]. These issues are discussed more in detail in the other sections of this chapter (Sects. 5.2, 5.3 and 5.4).

5.1.2.6 Telecare and Technology

There is growing exploration of the potential role of assistive technology in preventive approaches for older people. Technological innovation offers many ways of improving the quality of life and of mitigating some of the risks, and costs, of ageing [1, 15]. Technological trends related to older people care and services will be discussed later in detail (see Sect. 5.5).

5.1.2.7 Intermediate Care

According to Melis and colleagues (2004), there is no clear, agreed definition for intermediate care [16]. However, in this context, intermediate care describes services that are targeted at people who would otherwise face unnecessarily prolonged hospital stays or inappropriate admission to inpatient care or long-term care. Intermediate care services are provided on the basis of a comprehensive assessment, resulting in a structured individual care plan. These services have a planned outcome of maximizing independence and typically enabling clients to continue their lives at home. These services have a planned time period. Typically they involve cross-professional working, with a single assessment framework, single professional records and shared protocols [1]. These services are discussed more in other sections of this chapter (see Sects. 5.2, 5.3 and 5.4).

5.1.2.8 Reablement

Nowadays, in many European countries, there is a tendency to remodel home care services on a reablement basis (restorative focus), providing more intensive care and rehabilitative services for a short period of time with a view to reducing support as skills and confidence increase [1, 17]. This model completes or even replaces a conventional home care. A used concept of these kinds of services varies in different countries and regions (reablement, restorative home care, home rehabilitation). Anyway, reablement means learning or relearning the day-to-day skills needed to encourage an older person's self-confidence and support independence. Similarly, as the concept varies in different countries, there are different kinds of approaches and models in organizing these kinds of services. Reablement services may have developed out of traditional home care services or from hospital discharge or intermediate care schemes. In many cases these services are provided to older people who have just been discharged from hospital or otherwise need more support for living at home. Care and services are often delivered by multi-professional service and care teams [1]. Read more about these in the next section of this chapter (see Sect. 5.2).

5.1.2.9 Partnership Working Between Health and Social Care

In many European countries, there has currently been and is a tendency to intensify collaboration within health-care and social services. By working more closely together, it is argued health and social care partners could invest their respective resources more effectively and provide an earlier and more holistic response to need—which might prove successful in supporting people longer at home and prevent or delay admission to costly acute/residential care [1]. This approach is emphasized throughout this book when discussing older people care and services from different viewpoints [see in Chap. 9 "Case-Management" and in Chap. 10 "Care-Management"].

5.1.2.10 Personalization

By fully tailoring services to individual needs and circumstances, it is argued that there is scope to provide more innovative, higher-quality and better-organized support—potentially preventing or delaying future crises in people's health or social

situations. One objective of public policy is to enable older people to take greater control of their own lives and increase their engagement in economic, civic and social activity across the extending lifespan [1]. The viewpoint of personalizing care and services of older people is one point throughout this book—the related concepts are, for example, person-/client-/older person-centred care and services, individual needs for care and services and independence of older people. The idea behind all these concepts is the idea that the care and services have to be based on assessing each older person's individual needs. In addition, older people should be involved in decision-making concerning their lives. Consequently, collaboration with older people themselves is emphasized. Related to this view, the following concepts and approaches are used in this book in its different sections: placing the older person in the centre of care and services; provision of older person-centred, integrated and individualized care (see Sect. 5.2); and the 'emancipation' of the older people as genuine codesigners (see Sect. 5.6).

As this short review of preventive approaches indicates, it is important for social and health-care professionals to be familiar with different kinds of preventive approaches in order to be able to support older people's health, functional capacity and independency in different social and health-care settings.

5.2 Independent Living and Support and Care at Home

Most of older people are healthy and living in their own homes in a familiar environment [18]. Moreover, independent living at home is emphasized to be the main wish among older people as well with societies whose aim is to support this, for example, by planning and realizing support programmes. Based on statistics, the majority of older people (65 or over) lives alone (31.1%) or as a couple (48.3%). In the year 2009, approximately nine of ten people aged 65 and over in France, the United Kingdom, Germany and Finland lived independently in their own homes, whereas in the Netherlands, the percentage among home-living older people was even 95 percent. By contrast, this share was especially low in Spain, Portugal, Estonia and Cyprus. In these countries, older people more often lived in common households together with their children, while in Europe, this only concerns to 4.6 percent of all of older people [19]. It seems that the willingness to leave familiar surroundings declines in old age. The most significant factors which influence changes are, for example, changes in marital status, too large house to take care of or declining abilities [20].

5.2.1 Independent Living

Independent living at home can be enabled by using functional and social abilities [20, 21]. These abilities have been found to support independent living. Functional ability is defined in terms to perform activities of daily living (ADL). These abilities are also linked to comprehensive health but also strongly to everyday activities such as shopping and household chores. Functional abilities as well as health can be

assessed both objectively and subjectively. Health can be observed from the perspective of complete physical, mental and social well-being as was already discussed in the previous chapter (see Sect. 4.1). Objective assessment of health can be evaluated. When health is evaluated by using objective assessment, it mostly includes evaluation of chronic diseases, medication use, malnutrition, vision, cognitive status, physical activity, smoking and alcohol use and measurement of blood pressure. Subjective health, instead, is often considered more as an emotional view. Although objective health and ability to manage activities of daily living can weaken as an individual becomes older, subjective health can stay at good level for longer.

Social abilities such as relationships with family members, relatives and friends support older people's psychological well-being and life satisfaction and in managing their daily chores [22]. In addition, participating in social activities with other people increases well-being [23] and quality of life [24]. Independent living at home can be achieved by using older peoples' individual resources. Moreover, independent living is also associated with living circumstances and social environment. Individual resources are a significant part to maintain older peoples' well-being and to achieve individual goals [25]. Social environment and meaningful relationships with family members and friends may be a significant resource which may support older people's life satisfaction and their ability to deal with daily activities [24]. In some cases, social relationships can weaken the older people's capability of living at home, for example, in the case of caregiver taking care of a spouse with a memory disorder. Caring for a spouse with a memory disorder has many influences on caregivers' overall well-being, such as stress and even depression [26].

Some factors can be mentioned that can threaten independent living of older people. These factors can cause the situation where the own home is no longer a safe place for the older people. Declining functional abilities and health, or experience of it, can lead to difficulties to manage everyday activities. These difficulties are considered as the main reason why independent living can come under threat. For example, chronic diseases, especially cardiovascular diseases, diabetes and cognitive disorder, such as dementia, can weaken the ability to manage everyday activities and therefore threaten independent living. Furthermore, some situations such as loneliness, isolation and insecurity as well as falls and malnutrition can also threaten independent living [27].

It is evident that there are both individual and cultural differences that influence older peoples' independent living at home. Probably there are even more different factors that can threaten independent living than those mentioned above. Therefore, it is significant that identification of influencing factors is continuous because it enables proper allocation of health-care and social services targeted to the older people [28].

5.2.2 Homecare Services

Recently, social and health-care services are under economic pressure due to the demographic change caused by the increasing number of older people. In old age,

reduction in physical abilities can lead to loss of independence and the need for institutional care which is often costlier than home care [29]. Therefore, growing attention has been given to changing the care of older people from institutional to home care. In addition, in many countries, there is also a legislative responsibility to supply home care services consisting of support for older clients at home. These trends challenge health and social services to respond to expectations and require comprehensive care and service planning and daily care targeted at the multidimensional needs of individual clients [30, 31].

Older people are becoming older, and therefore the risk of diseases with loss of different abilities is increasing [20, 21]. The effects of ageing on the need for health and social services depend on the loss of abilities of older people. They mostly use the same social and health-care services as other age groups; however, there are some services that are headed at older people. In Europe, home care services consist of variety models, such as municipal home care services, the private and third sector as well as informal care. Private care and services are growing in several countries, such as Ireland, Finland, Sweden and England. Home care services are mostly organized by integrating services realized by case managers which coordinate the services, i.e. in England, Iceland, Sweden, Italy and Finland. In addition, other ways to organize services are through integrated care teams (e.g. Norway), integrated care trusts (e.g. the United Kingdom), residential homes and some domiciliary support services in Portugal and Denmark as well as in some Swedish municipalities. Nevertheless, how the home care services are organized, services consist of regular home visits, and the content of services are counselling and support for self-care and everyday activities. The contents of daily home visits consist of daily help, such as personal and physical care and care based on nursing, for example, taking care of medication [32].

Home care services are accomplished in clients' homes by home care professionals, such as practical nurses, home care nurses and home care service managers, in close collaboration with other social and health-care professionals. The execution of home care services is based on legislation and ethics, and it consists of care planning in collaboration with older people and their relatives and also professionals' practice in daily care. The target of home care services is to provide personal assistance for everyday activities such as hygiene, eating and dressing and nursing treatments such as the administration of drugs and wound care.

The basis of home care services is the individual care and service plan which is produced and documented for all home care clients in agreement with them. The plan has to include the individual description of care and services to each client according to the client's needs in order to support older clients' living at home as long as possible. Also, the goals of clients' care and services, planned daily care and evaluations of clients' situations have to be documented. The planning of care and service plan is the first phase of initiative care relationship. Home care professionals in collaboration with clients and, if needed their relatives, make assessments, decisions and goals and decide interventions by implementing care and services. It is important for home care professionals to notice that clients are experts on their own lives, they have self-determination and they bring their own expertise to the care

planning. Older clients' ability to influence on care planning and decisions of their care has direct consequences for their successful home care services.

Care planning is based on the assessment of older clients' functional and social abilities, self-care abilities, everyday activities, cognitive status, habits and preferences, including recognizing quality of life and well-being [30]. The requirement of home care services depends on clients' needs for care and services including daily help and support with everyday activities and personal care. This is based on assessment of individual needs for care and how the goals of care and services are to be achieved [33]. The form of documentation of care plan includes goals, interventions and expected outcomes of the care and service process that are planned and agreed upon in collaboration with clients, relatives and professionals [34].

In most European countries, the primary nurse has the main responsibility for planning and execution of care which is based on ongoing evaluation of clients' health condition. Furthermore, the primary nurse, as well as other professionals, has the responsibility to encourage and promote clients to play an active role in their own care and services, thus helping them to maintain their independence within the home and community [35].

Clients' care which is accomplished at homes consists of home care professionals' tasks such as assistance for everyday activities and nursing treatments [36]. It is significant for clients that individual assistance is based on the client's needs and resources. This kind of working habit will optimize clients' influence over how the care and individual support is arranged. In addition, when receiving assistance, the client has the right to decide what the professional should do and when and how it should be done. In practice, this means that primary nurses implement daily care in collaboration with clients and taking into account all life dimensions that affect clients' health condition, including their ability to function and use of individual capacity [37]. This kind of individual care is significant, especially for clients with chronic illnesses or disabilities and declining cognitive disability which need rehabilitative approach. The confidential relationship and communication between the client and the primary nurse support for the maintenance of individuality despite of declining cognitive ability with various symptoms [35]. By supporting clients' needs and individual resources, it is possible to enable their living at home by respecting their own lifestyle, quality of life and well-being. This kind of individual care which takes care of clients' needs increases clients' trust and satisfaction with home care services [38].

Demanding work at home care services requires that home care professionals possess skills to provide care and support which take into account the complexity of clients' numerous challenges. Therefore, home care professionals who work with older clients with complex needs have to be experts in planning and implementing care that supports the highest quality of care to clients [21, 35]. A respectful relationship between older client and primary nurse is related to reciprocal confidence. This kind of relationship is based on action where the primary nurses take into account older clients' autonomy and respect the various ways how clients live in their own homes. Older clients' confidence in home care professionals and especially in the primary nurse increases when professionals focus on clients' opinions

and perceive their needs in care planning as well as in daily care. This kind of respectful relationship between client and primary nurse is sensitive and based on the ethical perspective where the clients have their own equal authority and own values. However, in daily care, it might be a challenge for home care professionals to recognize and take clients' resources into account and support them in daily activities [24].

5.2.3 Technical Support

In addition to 'traditional' care, it is possible to support older people's independent living at home by using different technological solutions. As technology advances, many of these solutions can utilize informatics applications that promote well-being and enable monitoring in home. Technology-based home care refers to the use of ICTs to monitor well-being and to provide a secure home environment. Sensor technology is one solution which is used by measuring the physical environment as well as monitoring older people at home. The sensor technology makes it possible, for example, to communicate with one another and measure the amount of light, temperature and movement in the environment. For example, the use of furniture, such as beds, toilets, chairs and sofas, can be monitored using pressure sensors. Older peoples' activity can be monitored by using motion sensors attached to interior ceilings, wearable technology and video cameras [39].

In addition to sensor technology, robots have been developed to assist older people to stay healthy and safe in their own homes. These kinds of assistive social robots such as pets can be used for older people who feel themselves lonesome. In addition to providing companionship, robots can support independent living by assisting daily activities (eating, bathing and getting dressed) and mobility and providing domestic aid. Thus, robots can be used as medication reminder. There are also many functional apps such as smartphone and tablet apps that can improve older people's independent living at home. These apps can be used, for example, to enhance mental health, track health records and medications and follow individuals' sleep [39, 40]. For home care providers, the robots and smart home applications provide information about the current status of the daily activities of the older people. Measuring daily activities provide home care professionals with objective and regular information that could be used in better assessing the condition of the older people [39].

From the perspective of ethics, older people's care at home has to be organized and realized according to the following ethical principles. Moreover, clients have the right to be respected as the baseline for their care is the clients' best taking into account clients' autonomy. This refers to the clients' rights of self-determination in the context of deciding their available care and services. In addition, autonomy is related to dignity and is a remarkable aspect of ethical conversation in older peoples' care. According to the principle of autonomy, all older people should have the right to take a stand on their own care in collaboration with home care professionals based on their individual values. For older people, possibility to express their own

opinions and having home care professionals show consideration are prerequisites for accomplishing independence [41].

In summary, quality of care consists of individually planned services and individually delivered daily care. Client-based assessment and care planning which are based on client-centred approach confirm the promotion of autonomy and independence. In practice, it can be observed from the perspective of clients which means that even the ability to make quite small decisions about their daily lives can have a significant impact on their autonomy. The care and services of home care based on this approach require a process in which home care professionals assess and coordinate care and services in continuous collaborations with their clients [29].

5.3 Trends and Developments in Community Care

Health and social care services need to adjust in the contemporary circumstances. These include timely plans for changing health and social care delivery according to population changes. Not only the proportion of older people in general is growing, but also there are increasing proportions of the older and oldest old, who also continue living in the community and are in need of greater support because of their complex health and social care needs.

In 2007, the World Health Organization (WHO) published *Global Age-Friendly Cities: A Guide* [42]. In this guide, eight aspects of community life concerning older adults are identified: outdoor spaces and public buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information and community support and health services. Kofi Annan, the former Secretary General of the United Nations declares: 'A society for all ages is multigenerational. It is not fragmented, with youths, adults and older persons going their separate ways. Rather, it is age-inclusive, with different generations recognizing—and acting upon—their community of interest' [43].

An example of government policy following this general human need for inclusion is the decentralization in the social domain, implemented in 2015 in the Netherlands. The transition is based on the idea that individuals and clients should be more self-reliant and arrange things themselves to a greater degree and that municipalities, care and welfare organizations and informal and formal carers should have a different role [44]. The transformation is accompanied by the shared awareness that future-proof care and assistance require individuals and clients to take an active role and health and social care professionals to take a supportive and complementary role.

Countries utilize different approaches to organize health and social care services, but nowadays it is accepted that these services should be organized within the community setting so that older people continue living in the environment they used to. Although community care is not a novelty, it is the focus in contemporary discussions on how the best possible care could be organized. WHO report on Ageing and Health [45] points out the necessity for organizing health and social care services as close to the place older people live as possible, services such as primary health care

and social care that will provide holistic care in collaboration with the older people themselves. Especially today that there is a tendency to provide more cost-effective services, community care seems to be the right solution. These services should take into account the specific cultural, social and economic circumstances of the country, so that they are acceptable by older people but also their social environment and health and social care professionals.

Community care services in most countries are funded by public money, either through taxation or social security funds, depending on the model generally used. There are also services organized by the voluntary sector, including religious organizations, but also private organizations. Access to the services should be driven by equity for all older people regardless of the model used. In addition to that, there is a tendency that the family is expected to assume a central role in helping keep and support older people within the community setting. The family's role is stronger in some countries than others; for example, in Europe, in the Mediterranean countries, traditionally the family assumes a greater involvement in the care of older people than in northern European countries. Anyhow, living at home requires a certain level of self-care; if that is not the case, then older people need to be supported in order to achieve independent living. This could take the form of living in their own home with either family or external support or assisted living premises, if this form of housing arrangement exists. Both forms entail that services are arranged in such a way that they are able to respond at different levels of care needs.

Community health and social care services aim at maintaining independence of older people, preventing health risks, promoting well-being and safeguarding self-care, as well as supporting social networking. It is, however, important to note here that community care should be organized in such a manner so that older people and their families have access at the level of care they need; otherwise those in most need may get the least of services resulting in inequalities. There are different ways of organizing community care; some countries use them all, others not. Examples of these are help at home, day care and primary health care.

Help at home is organized according to the specific needs of the older people in order to support them to continue living in their own home. This form of care can support the older person or the family to manage activities of daily living independently. Help at home is not equivalent with home health/nursing care (see Sect. 5.2); it refers to services that support the older person—and/or the family—to carry on with self-care and or independent living, such as:

- Help with housekeeping and shopping
- Assistance with personal hygiene
- Meals on wheels
- Transportation to and from health and social care services
- Relieving the family caregiver from the burden of continues care

Day care is another form of helping older people to carry on living in their own environment and at the same time being active. In this type of service, older people

have the opportunity to be involved in activities outside their home and also socialize with their peers. There are different forms of day care:

- It could be just a community setting where older people can meet with others and socialize and participate in activities that help them to continue feeling useful form themselves such as exercise, occupational therapy, etc.
- Another form is the place where older people—in addition to social activities—can also get basic health-care services, such as preventive services, health education, chronic problems management, patient education activities and physiotherapy, if they need them [46].
- Intergenerational activities could also be organized through day care, and such activities have the power not only to keep older people active but also provide the younger generations with a positive image of ageing, because they are having the opportunity to be in contact with the older people who are and feel useful. For example, older people can visit a nursery school to read for children, play with them traditional games or cook together traditional recipes.

Primary health care (PHC) is the most common form of community health care. In most countries, PHC includes basic health-care services, chronic diseases management, promotion of self-care and preventive services including immunizations and health promotion [47, 48].

Contemporary PHC, in the light of a society that ages, should place the older person is the centre of care. This approach takes into account the perspective of the older person and their family/caregiver and tailors the provided services to their needs. Such an approach is certain that it will be of better quality but also cost-effective as the services provided are not the same for everybody; some will need more, others less. This form of PHC—older person-centred care—can also be integrated and individualized; that means that it is provided by a team of health and social care professionals who are collaborating to provide the full range of necessary services as these are required by the specific individual, evaluate them and change them as needed [45]. Health literacy—that refers to the individual or group ability to acquire and understand information for health, health care and health services, so that they can use it in their everyday life and be able to act for the maintenance and promotion of their health [49]—of both the older person and their family/caregiver is essential in order to be able to participate in their care effectively and efficiently. Health literacy is instrumental for the involvement of the older person and their family/caregiver in their care, and the PHC team must ensure that they provide the necessary support.

In addition to the provision of older person-centred, integrated and individualized care within the framework of PHC, the PHC team has a duty to offer the opportunity to everyone to receive the appropriate services. It is their responsibility to locate and include all individuals or groups of older people that are in need of care but do not seek it by themselves; this can be achieved by employing community resources as well as working in partnership with other health and social care services.

Patient education occupy a special part in the community care; it includes education of the individual older person to improve his/her self-care but also promote self-management for chronic conditions, as older people have to live with these problems for the most part of their lives. It is very important to make it available to anyone that needs it as it can help them to avoid unnecessary hospital visits and hospitalizations or lead them to long-term care.

Health promotion interventions for all ages including older people are mainly organized within the community setting. Most health promotion interventions aim at the groups that have a high functional ability, but there are also interventions designed for older people with restricted abilities, even frail older people. Although there is no hard evidence that all kinds of health promotion interventions are of value in promoting health of older individuals, it is certain that these improve quality of life because they engage older people in group activities which are valuable for the promotion of psychosocial health [50].

Taking into account the older person who lives in the community with various health-care needs and is being cared for by different professionals and services, it is of paramount importance that there is collaboration among them. There is also a need for collaboration between services/professionals and the older person and his/her family in order that the services are appropriate and holistic. If this fails, then the results would be either gaps in the care needed or duplication of services that may cause, in addition to being ineffective and costly, additional problems to the older person [45].

Community care has also an important role to play in social support of the older person as it has been found that social support positively influences all aspects of health and quality of life. It is therefore very important that one aspect of community care should focus on how the older person continues living within a social environment that supports social relationships. Older people are also able to contribute by supporting others, either within day care or in older people's homes. Such volunteering activities organized for and with older people provide a safety net for both groups of older people, those offering social support and those receiving it.

Volunteering activities that older people participate within the community should not to be limited among older people themselves. Older people can remain active and offer their valuable knowledge and skills in various settings, such nursery care. They can also use their knowledge and abilities to train others in useful skills [47]. Community care can help organize such activities with the participation of older people, following a detailed assessment of the existing needs.

In order to achieve successful community care, there should be an interprofessional team that collaborates within and with older people so that their needs are met fully. The team should use a comprehensive assessment that is holistic and collaborative. In order to achieve this, health and social care professionals need to be trained not only in relation to their expert knowledge for providing their services but also in skills necessary for approaching the older person, recognizing his/her special circumstances and communicating with and engaging him/her in his/her care [51]. Moreover, community care should be accessible to all according to their needs, funded in such a way to ensure equity and coordinated in order to avoid

duplication and waste of scarce resources. If such community services are provided, the older person would be satisfied, and the professional/team would be motivated, while the final result would be high-quality cost-effective service.

5.4 Trends and Developments in Long-Term Care

As was discussed before in this chapter, most of older people want to stay at home as long as possible and remain active in the community, living in so-called age-friendly or senior-friendly communities. We have agreed that it is important to find solutions to handle the increase of older people in need of care and assistance and the decrease of professionals supporting them. Worldwide there is a need for social and health-care systems making optimal use of the available resources [52].

The consequence of this striving for age-friendly communities is that today a shrinking percentage of older people in Europe live in long-term care institutions. Nowadays the general opinion is that long-term care has to be person centred and should fit the individual. In most European countries, the number of nursing and old people's home beds is increasing, however, not as fast as the number of older people [53]. Most of older people live at home. When problems in daily functioning arise, first the informal network (family, friends and volunteers) is being called upon. When this is not sufficient anymore, professional home care is added to the informal care. When these two systems can't offer the increasing care needed, then admission in an institution is considered as the final option. This is congruent with the policy of the government. Only when living independently at home is no longer possible due to decreasing physical or cognitive functioning, admission in a residential or nursing home is considered.

Therefore the care needs of those who move into a residential care setting are more complex than they were a few years ago. The expectation is that, if present policy continues, the care needs of nursing and care home residents are set to increase further and that residential care homes will no longer exist in the coming few years. Nursing homes subsequently develop into care organizations for older people with complex care needs and severe disabilities. This appears to be a worldwide phenomenon [54] recognized by all nations and cultures, leaving nursing home care as the last resort [55]. As a result, worldwide, a variety of different housing and community-based care-delivery programmes have been developed that provide alternative options to traditional nursing home care.

A recent published Dutch study [56] revealed that "in 2015, there were approximately 117,000 older people living in nursing or care homes in the Netherlands. The majority (over 60%) were women aged 80 years or older. Four out of five residents have severe physical constraints. Most residents (85%) face multiple functional problems, comorbidity. Almost 75% of the residents have memory complaints. A quarter of the residents has pain complaints, and also a quarter of the residents regularly have problems sleeping. Almost all residents use medicines (94%). Most nursing home residents receive help from their informal network on a regular basis. In most cases (75%) one of the children provides help on a weekly basis with things

like administration, transport, shopping and washing. Forty percent of the residents are helped by a volunteer for trips out and at mealtimes (daily). Friends also offer help mainly during trips out, but this help is much less frequent."

5.4.1 Developments in Nursing Care for Older Persons Living in Long-Term Care Facilities

Capezuti and Hamers [57] conclude in their systematic review focusing on the improvement of the nursing care of older adults that 'current practices and systems of care have yet to let go of traditional provider centred paradigms to allow patients and families to express their care needs and priorities'. In caring for older people in long-term care facilities (nursing homes and care homes), resilience, self-management and functioning are core principles [58] besides advanced care planning, healthy ageing, well-being, adaptation and coping with the consequences of disease, dialogue and empathic, person-centred care not only focusing on the patient but also on the family. It is all about person–family-centred care. Together they form a unit of care [57]. Besides all these care characteristics, nursing home care should not only concern the quality of life but also the quality of dying (fitting the needs, hopes and aspiration of residents), because nursing homes are increasingly the place where people are dying.

In 2017, a new quality standard for Dutch nursing home care was published operationalizing these core principles [59]. The quality framework describes what residents and their relatives may expect from nursing home care. Furthermore, the quality framework describes the consequences of these standards for care organizations and care professionals. A principle of the quality framework for Dutch nursing home care is the importance of the care professional in obtaining quality of care. Professional craftsmanship serves as basis for professional quality.

For care professionals working in nursing homes, the increase of residents with heavy care demands means that their work becomes more complex and that they must have a great deal of knowledge and skills in the area of geriatric disease and how to deal with it. They need to have somatic as well as psychogeriatric knowledge. The challenge for the care personnel is to help the nursing home residents in fulfilling their needs, including end of life care. End of life care reduces stress, anxiety and depression of family members and increases the residents' satisfaction with care. However nursing home staff often fails to recognize actual residents' end-of-life preferences according to Mignani et al. [60].

Boersma [61] describes that besides personal and meaningful contact with other human beings, pleasant daytime activities, company, adequate support when feeling distressed and preservation of self-esteem are relevant to the quality of life of people with dementia. Finnema et al. [62] relate the adaptive tasks people with dementia are confronted with when admitted to a nursing home to emotion-oriented care. The integrated emotion-oriented care approach strives for an application of (suitable elements from) emotion-oriented approaches, such as validation, sensory stimulation and music therapy, integrated in the daily care (Table 5.1). Integrated

Table 5.1 Integrated emotion-oriented care in relation to adaptive tasks [62]

Adaptive task	Integrated emotion-oriented care
Coping with own invalidity	Help the person with dementia to cope with the constraints. Support him and encourage him to do the things he still can
Developing an adequate care relationship with the staff	Behave empathetic and make use of knowledge of the life history of the person with dementia. Accept the resident as the person he was and is today
Maintaining an emotional balance	Respect emotions and confirm or weak them off. Offer pleasant sensory stimuli (music, good food, etc.)
Maintaining a positive self-image	Promote the dignity of the person with dementia to let him remember positive events and encourage him to do activities that he can
Preparing for an uncertain future	Show understanding for the feelings of the person with dementia about present and future and offer activities that make it here and now makes sense
Coping with the nursing home environment	Let the person with dementia feel at home and continue to maintain his habits to prevent hospitalization. Involve the person with dementia in recreational activities
Developing and maintaining social relationships	Match the needs of individual contacts and encourage the person with dementia to fulfil several social roles

emotion-oriented care is defined as 'the integrated application of emotion oriented approaches and communicative skills, customized to the individual person with dementia, taking into account his needs and physical and mental disabilities, for the purpose of offering feelings of security and trust to the person with dementia and helping him to adjust to the consequences of his illness [63, 64]'.

Kitwood [65] developed in the 1990s a person-centred care from the view that our frame of reference should no longer be person with *dementia*, but *person* with dementia. He has the opinion that the behaviour of persons with dementia is strongly influenced by the social environment surrounding the person with dementia. The idea behind person-centred care is that it has a positive influence on the quality of life of people with dementia.

Summarizing, we can state that different psychosocial and person-centred approaches have been developed in the last decades, for example, validation, reminiscence, multisensory stimulation, movement activity and music therapy. Beerens et al. [66] conclude in their systematic review that currently there is no convincing evidence about which factors are associated with quality of life of people with dementia living in long-term care facilities. In addition Finnema et al. [62] say "(…) that nowadays there are no standard prescriptions for the way caregivers should communicate with people with dementia. In every situation, it is necessary to tune into the unique personality of the person with dementia, his particular personality, his situation, his life history, his needs and his way of coping with the disease." 'The most important question for the caregiver is not whether a particular method was applied as described, but whether there was a situation or a moment of mutual understanding and contact [67]'. The challenge for care professionals is to choose which care approach best fits the individual nursing home resident.

Dewar and Nolan [68] found 'a positive relation between strong leadership supporting provider-patient therapeutic relationships combined with education in appreciative care conversations positively affects compassionate, relationship-centred care'. Liu et al. [69] also concluded that education and positive clinical experiences are associated with positive attitudes about older adults. But not only knowledge on caring for persons with dementia is needed for health and social care professionals working with older people. They also have to know about (chronic) diseases affecting the functioning of persons in daily functioning and activities. The way to look at these impairments in a more dynamic way is not with a focus on illness but with a focus on functioning. This is also reflected in the definition of positive health formulated by Huber et al. [70]: ***Health as the ability to adapt and self-manage, in the face of the physical, emotional and social challenges of life****, as mentioned in Chap. 4*. It stands for a broad view on health, in which health is no longer considered as a static condition but rather as the dynamic ability to adapt and to manage one's own well-being [71]. This new health concept in combination with changing care concepts, for example, shared decision-making, person-centred care, integrated care, respite care, family care and high-quality standards for long-term care, implicates that providing high-quality care to nursing home residents is an impressive task force. The changing work environment, as it regards both content and organizational aspects, demands a great deal of flexibility and resilience from the professionals.

It is important to start and continue with investing in future and current professionals in order to give the best possible care to our most frail population, nursing home residents.

5.5 End-of-Life Care

5.5.1 End-of-Life Care Legislation in European Countries

Because of the global ageing and increasing of dementia and chronic diseases, the need to end-of-life care (EoL Care) or palliative care (PC) is rising in Europe [72]. It is evident that there are differences between end-of-life care services and the quality of death in different European countries. A great number of European countries do not have national palliative care strategy [73]. Woitha and colleagues [74] mapped on the year 2015 PC policy and legislation in the WHO European region and found that about one-half of EU countries have legislation related to PC. In addition to legislation, PC may be mentioned in other national strategies. They state that most often PC is mentioned in national cancer strategies due to the history of PC: initially cancer patients were the target group. They recommend that it should be considered to include other chronic conditions, for example, dementia [74]. As the matter of the fact, the European Association for Palliative Care (EAPC Onlus) has defined palliative care in dementia and described the key domains of it. Many of these recommendations are similar as emphasized in older people's care and support in general: patient- and family-centred care, good communication and including patient and family in decision-making, holistic approach and optimal care of symptoms as well as educated personnel [75].

5.5.2 Definition of End-of-Life Care

Moreover, concepts related to the end-of-life care vary, and there is no agreed definition of end-of-life care. The most used definition is palliative care definition of WHO [76]: 'An approach that improves the quality of life of patients (adults and children) and their families who are facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and correct assessment and treatment of pain, and other problems, whether physical, psychosocial or spiritual' [76]. In European countries, different kinds of concepts are used. Gysels and colleagues [77] in their study found the following terms: end-of-life care, palliative care, terminal care, supportive care, advanced care, advanced care planning and shared care. The authors also state that often terminal care and palliative care are used as synonyms taking not into account the difference. When Gysels and colleagues [77] analysed the concepts used, they concluded that the most problematic in defining are the specification of time frames as well as boundaries between cure and care. They state that it would be important to develop a shared language for end-of-life care in order to find its ethical basis and specificity [77].

5.5.3 End-of-Life Care Facilities

In addition to different regulations and definitions, PC is managed in different facilities, for example, in terminally ill patients' homes, hospital wards or in-patient hospice settings. It can also be provided by general medical and surgical services, residential and nursing homes or by acute oncology or acute care settings [78–81]. There are also mobile palliative care teams operating from hospitals as well as primary care teams (physician, nurses, psychologists and social workers) in many countries [82]. PC services can vary in non-urban areas compared with an urban environment. PC is multidisciplinary teamwork between social and health-care professionals. Volunteers have a pertinent role in it, though their involvement across health care may vary between countries. It seems that in the United Kingdom, Belgium, the Netherlands and Sweden exist the most relevant PC services and the best capacity development. It is also supposed that in the United Kingdom, Luxembourg and Belgium, the number of palliative care wards and hospices and support and home care teams is high [78–81].

Centeno and colleagues [83] investigated specialized palliative care services (home care teams, hospital support teams and inpatient palliative care services) and their development on the years 2005–2012 across the World Health Organization European Region. They conclude that there has been positive development over the years; however, the services of palliative care are still insufficient in many European countries to meet the needs of patients [83]. Similarly, WHO in its declaration published in 2014 states that in many countries around the world, patients have a limited access for palliative care services. The declaration emphasizes the importance of palliative care services in primary, community and home-based care. Moreover, it is emphasized that palliative care should be included in the continuum of care for

people with chronic diseases. It is not only the care in the terminal stage; instead, it should be provided alongside potentially curative treatment and consist of holistic care including physical, psychosocial and spiritual care [76].

WHO emphasizes that issues that seems to be efficient in palliative care are multidisciplinary and multi-sectoral approach, taking into account cultural and economic setting. Moreover it is important to integrate palliative care services into existing social and health-care systems of each country or region. However, the emphasis should be on primary health care as well as community- and home-based care. The education and training of professionals are important [76].

The culture of care can vary in different health-care settings. Social and health-care professionals may have different perceptions of comfort, and the role of the family may have a significant influence on patients and families' experiences of care [84]. Core attitude in palliative care is the way in which social and health-care professionals perceive themselves and the world and form the base for their thinking and actions. It includes personal characteristics such as authenticity, honesty and mindfulness. The experience of care becomes apparent in relationships with the patient. The competence in PC acquires a high degree of perceptiveness and ability to listen and learn from the patient. It is important to listen to the patient's wishes and expectations about the rest of life. Social and health-care professionals must be sensitive to the patient's possible fear of dying and ensure the patient's safety and comfort. They also must seek spirituality and existential issues as important dimensions of PC and pay attention to the patient's wishes about their own meaningful rituals and religious services without forgetting social concerns. It is also pertinent to create active communication between professionals, patient and near ones and to share information between multi-professional team members [85, 86]. It is important to develop the end-of-life care according to the needs of population. Daveson and colleagues [73] investigated the opinions related to the end-of-life care of public around Europe. According to their research, the public finds it important that death and dying are recognized as well as the end-of-life care to be of high quality. People also emphasized that it is necessary to improve especially palliative care of older people including support of their families [73].

5.5.4 Euthanasia

In spite of the fact that euthanasia is not a part of palliative care, it is discussed here briefly because euthanasia and related questions may arise within patients in palliative care as well as with their families.

In many European countries, there is ongoing discussion related to euthanasia and physician-assisted suicide (PAS). This was recognized by the Board of the European Association for Palliative Care (EAPC) which published a white paper of palliative care on 2015, as well as the International Association for Hospice and Palliative Care which (IAHPC) prepared the statement on euthanasia and physician-assisted suicide on 2017 [87, 88]. The aim of both associations was to provide patients, caregivers and health-care providers evidence-based knowledge of these

issues [87, 88]. In the white paper, the EAPC board members discuss the definitions, philosophy and values of palliative care as well as concepts of euthanasia and physician-assisted suicide. The similar content is dealt with the statement of IAHPC [88]. It is stated that euthanasia and PAS are currently most discussed and also most sensitive ethical issues in social and health care in Europe [87, 88]. The EAPC board adds that there is no consensus to be achieved in these issues which include ethical, moral and medical dilemmas [87]. So, in this brief text, it is neither possible to deal profoundly with these issues nor meant to take position. Instead, the aim is to emphasize the importance of social and health-care professionals working with older people being aware of the ongoing debate and be prepared to discuss these sensitive issues if the need arises within older people they encounter in their work. It is important to mention here that the EAPC position paper states that euthanasia is not a part of palliative care [87].

In the literature, there are different kinds of definitions for euthanasia and PAS. EAPC [87] defines euthanasia as follows: 'A physician (or other person) intentionally ending the life of a person by the administration of drugs, at that person's voluntary and competent request'. Moreover, EAPC's definition for PAC is: 'A physician intentionally helping another person to terminate his or her life by providing drugs for self-administration, at that person's voluntary and competent request'. [87].

In most countries, assisted suicide and euthanasia remain illegal; however, in many European countries, there is discussion and debate on legalizing euthanasia or assisted suicide. Moreover in Europe, there are three countries where euthanasia is legalized [89].

IAHPC emphasizes that an important part of palliative care is to listen carefully the patient also if she or he have request for hastened death. According to the authors of the IAHPC statement [88], it is rare that these kinds of discussions often really include a real request to act accordingly. They emphasize that it is important that professionals acknowledge these wishes and understand that these should lead to holistic care which include physical, psychological, social and spiritual care. It is of great importance for professionals to have a good relationship with the patient in order to understand his or her underlying motivations [87, 88].

5.6 The Use of eHealth in the (Self) Care of Older Adults

Other authors in this book have mentioned the demographic developments concerning older people and the increase of care and support this implies (see Chaps. 2 and 3). Further, senior health consumers have other demands about the provision of care than previous generations. They expect it to be more personalized and tailored to their needs [90]. They also expect they can make their own decisions and value their autonomy and self-management highly [91].

Parallel to these changes in demographics and consumption of care, there has also been a significant change in technological possibilities in health-care and social support. Considering how technology works, looks, reacts and is being used by people, it has become a bigger part of our lives, and we rely on it more heavily each day. Also, eHealth and assistive technology becomes more and more ubiquitous

[92–95]. These technological innovations may help to face the challenges in health and social care, also for older target groups.

Against this background, there are three significant trends in health and social care for older adults that can be identified. The first one is the importance of monitoring and early detection of a person's health and social issues. To prevent matters to get worse is foremost in the benefit of the persons itself but also prevents higher expenditures to more severe and long-lasting care and support.

As the second trend, more emphasis is put on keeping older adults residing in their homes, since most people—also at advanced age—have the desire to remain independent for as long as possible [96, 97]. A variety of technological solutions is focused on facilitating older people in dependent living, such as ambient assistive technology (sensors, automated facilities at home), telemedicine solutions and serious games.

The third trend is that of making clients and patients more in charge of their own health process and to tailor care and support to their personal needs. Many digital solutions have been developed to make decision-making and data-recording between professionals, clients and informal caregivers more open. This facilitates a more co-creative and client-centred approach.

In Sect. 5.6.3, we give an impression of what are feasible solutions in health and social care for older adults.

To actually see the benefits of technological innovation in health and social care for older adults, an important issue should be addressed: For a long time, senior target groups were seen as the slower and more reluctant groups to adopt (health) technologies. Is this still the case at the end of this decade? What insights can be used to motivate wider and more sustained use? In Sect. 5.6.2, we explore the latest developments on these issues.

Designing innovative health technology that fits to the needs of older people is a delicate matter, since age-related challenges (i.e. cognitive, perceptual and physical) require special attention. In the last part of this section, we want to argue that successful and meaningful innovation in health and social care does *not* start from technology. To develop technology that actually is used by older adults, it should start with a user-centred mindset, actively involving members of the (older) target group and also health and social care professionals as codesigners.

5.6.1 Technology to Support Health and Self-Management for Older Adults: A Brief Overview

In this section, we try to give a short line-up of several technological applications that can help older adults to manage their health and self-management. This list is far from comprehensive, since the number of technological solutions is vast and new ones are introduced every day. We make a distinction between three important domains in which health technology is applied. The first is about monitoring personal health and early assessment. The second domain is about assisting self-management at home and health maintenance. The third is on assisting people in (shared) decision-making once they receive care and/or support.

5.6.1.1 Monitoring Health and Early Assessment

Since most of the older adults prefer to stay in the comfort of their own homes, prevention of calamities and early detection of health of well-being issues is important. A wide range of sensor technologies, like infrared, optical sensing, gyroscopes, accelerometers, GPS, thermometers, glucometers, EEG and so on, can be used to monitor important heath markers. It is possible to monitor heart rate, blood pressure, body temperature, sleep quality and physical activity but also blood glucose levels or even brain activity [98]. Many of these health markers can nowadays be monitored by technology available on the regular market. Think of body-worn devices (wearables like *Fitbit*®, *Jawbone Up*™), rings (*NFC Smart Ring*™) and smart garments (like *OM Signal*). But also certain smartphone technology is used [99]: this can be standard hardware in the phone (GPS, gyroscope, microphone) or with additional hardware (external sensors or other hardware designed for certain medical conditions).

Less mainstream, but nonetheless available in the near future, are sensors embedded in floors and beds (to monitor behaviour) or toilets and bathtubs (to monitor frequency of use). But also technology to put in or on a person's body (like chip implants or so-called bio-stamps) may not stay 'science fiction' for very long.

Apart from monitoring physical health, there is also much development on monitoring psychological health. There are many apps that facilitate monitoring psychological well-being and cognitive functioning (like *Moodnotes* or *Optimism*). More advanced, there are also applications in development to screen signs of clinically relevant memory impairment to detect early-stage Alzheimer's disease. The *Cantab Mobile* app is an example of this.

Although these tools gather all kinds of information about a person's health, it is important to ask ourselves: What to *do* with it? It is of great importance to accurately assess the different types of information these tools generate, see meaningful patterns and base adequately decisions upon them. For safe and prudent use, clear instructions and guidance are needed. Careful design of these applications, i.e. intuitive user interfaces and well-chosen features to handle the data, is important. Moreover, additional support from health professionals may also be required.

5.6.1.2 Self-Management, Living Independently and Health Maintenance, (AAL, Gaming, Robotica, Pillenbox)

Monitoring and assessing a person's health status is often just a means to a more important goal: for older adults, the tools and applications we discussed in the previous part can eventually support them in self-management and independent living. Some of these tools not only monitor health information but also gather other data that is helpful to sustain self-maintenance of older adults.

Wearables and smartphones can monitor a person's psychical activity patterns in and outside the house. Moreover, Ambient Assisted Living (AAL) technology can do this, with motion detection in rooms or pressure sensors in floors, beds or toilets to detect (deviations in) patterns to signal possible accidents (people that fell or are disorientated). However, AAL technology goes a step further than that. Older adults can benefit from more active support using apps that manage daily schedules and

send reminders for important appointments or activities. This kind of technology is called 'cognitive orthotics'. Social robots, such as *Pepper*, *Zora*, *TinyBot*, etc., can be used for the same purposes; a few robots can even provide in some—yet primitive—social interaction. The latest developments indicate that robots will soon run errands in the house (fetch the newspaper, help with dressing or eating). It is very probable that these new forms of technological assistance at home become more regular now that big tech companies invest in personal assistant products like *Siri*®, *HomePod*™ (Apple®) and *Echo* (Amazon®). The accelerated development this implies could be of great benefit for the older adult population. Besides these mainstream products, there is also an array of more specific tools that focus on (older) people in care situations. For instance, automated medication dispensers (e.g. *Medido*) are rather simple but already a widely used tool to help people to take the right pills at the right time of the day.

A different type of technology that facilitates self-maintenance is that of serious gaming. Regular psychical and cognitive exercising is important, certainly for older adults. Serious exergaming with easy, intuitive controls (e.g. Wii™, Kinect™) can motivate people for physical training (e.g. Wii Sports, specialized games made by independent game companies) but also cognitive exercising (e.g. Dakim® Brainfitness™). Older adults are typically more motivated to play these games when a social component is involved: playing competitively or, even better, playing together [100].

Up to here, we mainly talked about technology that aims to prevent care dependency. But when people already are in care, self-management could be stimulated by employing forms of telemedicine. There are already many telemedicine systems that facilitate people to consult a health professional or somebody in their own social network. To be able to do this at home and at more convenient times makes the care process less interfering to people lives. For people in long-term care, this can make a huge difference. Telemedicine is often used for verbal consults, with the visual contact to enrich the social interaction.

Moreover, other types of telemedicine emerge. For instance, the healing of wounds or irregularities of the skin can be monitored using the visual channel of telemedicine [101]. One of the latest developments is that telemedicine technology can do real-time 3D-modelling of joint movement, such as knees or shoulders (Extreme Reality, www.xtr3d.com).

Of course, there are many more technological tools and applications that support self-management and autonomy. We left out very obvious technological aids that are already widely used, like stair lifts, scoot mobiles, visual and auditory aids or other (technological supported) limb prostheses.

For many specific physical, mental or social challenges, some solution probably has been developed, whether it is a portal that supports people with rheumatic arthritis, an app that helps to communicate when speech is impaired or tools that improve sleep patterns. The ease to come up with many more examples such as these just illustrates a more over-arching trend: in the near future, technological applications will tune in more and more to the specific needs and wishes of older adults and help them to maintain their self-management and independence.

5.6.1.3 Assisting Shared Decision-Making and Proactive Coordination of Care

In the circumstance that people are already (long-term) health consumers, technology can also be of assistance in taking greater control over, and people can be more active participants in their health and social care process. Since *shared decision-making* and *patient-centred care* have become important paradigms in health and social care, it is only logical that this is supported by the technological possibilities available [90].

More and more, patients' data are recorded digitally (electronic patient records, EPRs) and can be shared with them. This implies that patients can review what is written about them and are able to make additions to their records (with applications like *Patients Know Best* and *Lable Care*), together with informal caregivers. This not only creates accurate and personalized records; it also helps to coordinate care according to the needs and wishes of the older person while involving all relevant parties. This way technological applications can really help to shift the control and responsibility from formal caregivers to (care dependent) older adults and informal caregivers.

Apart from keeping open health records, there are also other tools that support coordination of informal caregivers (*Decide Guide*) which can be relevant in cases of long-term care, and support is needed when people suffer from chronic and/or increasing health issues.

5.6.2 Technology Acceptance Among Older Adults

From the movie *I, Daniel Blake* [102]:

(At the social service office, Daniel Blake (a man in his 60s) tries to sort out an administrative problem. However, he is told he should visit the website and solve his problem there.)

> *Daniel Blake 'I hear this all the time "we are digital by default"' Well, I'm more 'pencil by default' […] Clerk: There is a special phone number if you're diagnosed as dyslexic'.*
>
> *Daniel Blake: Right, can you give me that, because with computers, I am dyslexic!*
>
> *Clerk: You'll find it online, sir…*

A common belief is that older people are reluctant to use new technologies, such as computers, the Internet, smart home technologies, apps, etc. [103]. In general, they rather stick to the (outdated) technologies of their own generation, as is illustrated in the movie transcript above. In part, this is true. Older people tend to be later in adopting new technologies [103, 104] and also tend to use less technology compared to younger adults. These inequalities in digital skills may lead to what is called a 'digital divide' [105]. This raises the question about the consequences of technological innovation in health and social care: Will it create barriers for older adults to receive proper care and support?

To answer this question, we want to look at into what makes (older) people accept and use technology, specifically for their health and self-management. What

are the main determinants and what role does age specifically play in this? In a well-established model on the acceptance of technology, the UTAUT-model [106], two important determinants influence the willingness to use technology. The first is 'effort expectancy': How much time and effort does a person expect to invest to use this certain piece of technology? Older adults report the following reasons for not using computer/Internet technology: the cost of the computer/other equipment and Internet access, functional impairments such as arthritis and joint pain that interfere with typing, visual deficits, ergonomic barriers (e.g. small font sizes), lack of computer knowledge, lack of computer efficacy (beliefs about their ability to use computers/Internet technology) and general self-efficacy (e.g. 'too old to learn new things') and mistrust of Internet systems and privacy-related concerns [107–109].

So, looking at this range of barriers, it is safe to say older adults feel somewhat digitally divided from other demographic groups using (health) technology. Albeit that, other factors, like lower social economic status and (e)literacy, are also important barriers. These factors can be but are not necessarily connected to older age [105, 110].

But there is another—more positive—side to the story as well. The aforementioned UTAUT model also recognizes 'performance expectancy' as one of the most important factors to predict use of (health) technology: if a person expects the product or service (a certain health app or sensors that track in-home activity) to be actually useful and relevant to them, chances of use will increase.

This insight may be the reason that, somewhat surprisingly, older target groups do not seem to hold negative attitudes towards technology, i.e. electronic or digital products and services [103, 111]. According to these studies, these opinions are actually predominantly positive, especially when it is evident that these technologies are beneficial to older target groups.

Universal design: suitable for older adults probably means suitable for other (most) target groups as well.

For example, one of the factors that made the iPhone popular among its (younger) first users was its intuitive interface design (big tiles, just pressing on the screen with nothing but your fingers). It did not take much time until also older target groups recognized the usability of this gadget, which led to many sales of iPhone among senior adults (which in turn had a slight negative effect on the 'hipster' image of the iPhone) [113].

When older adults gain some experience with computers/Internet, it reduces anxiety and increases self-confidence and positive attitudes about computers/Internet use, regardless of income and educational levels [112]. Moreover, as technology and also health and assistive technology is getting more mainstream (i.e. cheaper and more intuitive to use), more older adults start using it and getting more confident doing so. Indeed, user rates seem to point in that direction: although older cohorts may still be underrepresented in the use of (health) technology, they are the fastest growing group of Internet users [104] and smartphone users [114]. So, the differences in use of (health) technology between age groups seem to reduce over time.

Does this mean the adoption of health technology among older adults is a problem that will take care of itself? No it is not. Despite the growing numbers of older persons that use technology and a predominantly positive attitude towards technology, this does not imply that older users will have no usage difficulties for digital technologies, especially when not designed with older adults' capabilities and limitations in mind. When a device or smartphone app seems too difficult to operate, people will expect too much effort is needed to master it. While this is a factor for many technologies to fail, older people may be even more vulnerable to this [115].

Up to the present day, the developments of assistive and health technology have mainly been driven by a 'technology push' (i.e. products and services based on what's technologically possible) and less by a 'technology pull' that is based on actual needs of the target groups (i.e. designing products and services based on what a user-centred design process proves relevant). In the following section, we want to elaborate on the importance of designing health and supportive technology in participation with older adults.

5.6.3 Meaningful Assistive Technology for Older Adults by Human-Centred Design

In Sect. 5.6.2, we established that it is too simple to assume that most of older persons wish to avoid new technology. On the other hand, dealing with (health an assistive) technologies surely does not go without confusions or frustrations [103, 115] among older adults.

Attention to good design can improve the usability of these technologies, especially for older adults. Fiske and his colleagues [115] performed a focus group study about the problems that older adults encounter in daily activities (getting on a bus, reading instructions, using a technological device, household activities, etc.). They found that over 50% of these problems could, at least in part, be improved by a *redesign* that better fits to the needs of older adults. We expect the attention specifically to the design of health and assistive technology for this target group to be of at least equal importance. Core of the problem is that many health IT tools have been designed and implemented without—sufficient—participation of user groups in the design process. By not doing so, there is a greater risk that the (senior) target groups will not adopt these technologies [116–118].

There are two main reasons older adults should have an important role in the design for technology assistive care. The first lies in the fact that a person's health and/or well-being is involved. Ill-designed technology not only leads to annoyances about user interfaces (e.g. searching for the right button) or inconveniences about functionalities (e.g. buttons that do not do things you want). It is conceivable that poor design may lead to a level of misuse that it could actually threaten a person's health or well-being: When a person does not know how to operate a pill dispenser, there is a risk the person is deprived of the proper medicine. Or, an older lady suffering from dementia may panic when a social robot is suddenly talking to her. So, the consequences of substandard design are potentially more severe, making it is

also of ethical importance to involve the target group [119]. This way, unforeseen issues can be tackled in earlier stages in order to design secure and reliable technology.

The second reason is about the 'emancipation' of older adults as genuine co-designers: If the prospect is that assistive technology will become more important in care and support for people of older age, then they should be regarded as the pivotal stakeholder in the design process. This involves more than having people just test a prototype on its technical or functional performances. They should be involved from the earliest stages of the design process, by giving the opportunity to articulate their needs and wishes—before any technological solution even is being introduced [120–122].

Since the population of 'older adults' is very heterogeneous, it is crucial to *empathize* with members of this group and gain a deep understanding of the specific physical, social, emotional and cognitive challenges they face [121, 123]. These challenges may also change significantly over time. For instance, a person may experience cognitive decline because of dementia. Or, on a more positive note, a person regains her physical mobility after a successful hip surgery and picks up her social activities as a result of this.

These interactions and continuous changes in health and well-being call on any assistive health technology to be highly flexible and adjustable. For the design of these applications and the use of technology, this tailoring and personalization are paramount [115, 124]. The close participation of older adults that this implies does raise an important dilemma: It can be quite difficult for the designer to include older people with (severe) psychical of cognitive impairments in the design process. Where do you find people who are able and willing to participate in the design of something they may hardly understand? How meaningfully and validly can an older adult articulate his insights about an eHealth tool while he/she is in a developed stage of dementia? Despite these practical and more principal arguments, Span et al. [120] and Lindquist et al. [121] argue that, in any case, great efforts should be made to *always* include the end-user, not despite their impairments, but actually *because* of them. Only then technology can be designed that is truly meaningful and responsive to older people's needs and wishes.

Next to the older adults as end-users, there is yet another group often overlooked in the design of innovative technology: the health and social care professionals. Apart from the older adults themselves, these professionals should bring their valuable knowledge and experience with the target group and methods of practice to the design table. In upcoming decennia, their roles as professionally skilled yet innovative change agents will become more important in order to secure that the (continuous) technological development is truly relevant and beneficial to their work/to the betterment of the care and support they provide.

Health and social care professionals also play a pivotal role in the eHealth education of their patients. Those who cultivate a holistic approach to health and social care must adopt a view that sees individuals not just in their social but also in their technological context. Health and social care professionals should regard eHealth solutions as complementary to other health and social care interventions. Health and

social care professionals can inform their clients about the practicalities of eHealth solutions based on other clients' experiences.

References

1. Allen K, Glasby J. 'The Billion Dollar Question': embedding prevention in older people's services—Ten 'High-Impact' changes. Br J Soc Work. 2013;43:904–24. https://doi.org/10.1093/bjsw/bcs024.
2. World Health Organization. Noncommunicable Disease Prevention and Health Promotion Department. Ageing and life course. Active ageing. A policy framework. A contribution of the World Health Organization to the Second United Nations World Assembly on Ageing, Madrid, Spain; 2002. http://apps.who.int/iris/bitstream/10665/67215/1/WHO_NMH_NPH_02.8.pdf. Accessed 21 Jan 2018.
3. Tambor M, Pavlova M, Golinowska S, Arsenijevic J, Groot W. Financial incentives for a healthy life style and disease prevention among older people: a systematic literature review. BMC Health Serv Res. 2016;16(Suppl 5):426. https://doi.org/10.1186/s12913-016-1517-0.
4. World Health Organization. Health promotion glossary. 1998. http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf?ua=1. Accessed 15 Feb 2018.
5. World Health Organization. Ottawa charter for health promotion. 1986. http://www.euro.who.int/__data/assets/pdf_file/0004/129532/Ottawa_Charter.pdf?ua=1. Accessed 12 Feb 2018.
6. Nolte E, McKee M. Caring for people with chronic conditions. A health system perspective. European Observatory on Health Systems and Policies Series. England: Open University Press; 2008. http://www.euro.who.int/__data/assets/pdf_file/0006/96468/E91878.pdf. Accessed 21 Jan 2018.
7. Strong K, Wald N, Miller A, Alwan A, (on behalf of the WHO Consultation Group). Current concepts in screening for noncommunicable disease: World Health Organization Consultation Group Report on methodology of noncommunicable disease screening. J Med Screen. 2005;12:12–9.
8. Boeckxstaens P, De Graaf P. Primary care and care for older persons: Position Paper of the European Forum for Primary Care. Qual Prim Care. 2011;19:369–89.
9. Golinowska S, Groot W, Baji P, Pavlova M. Health promotion targeting older people. BMC Health Serv Res. 2016;16(Suppl 5):345. https://doi.org/10.1186/s12913-016-1514-3.
10. World Health Organization. World report on ageing and health. 2015. http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811_eng.pdf?ua=1. Accessed 4 Dec 2017.
11. World Health Organization. The European Vaccine Action Plan 2015–2020 (EVAP). 2014. http://www.euro.who.int/__data/assets/pdf_file/0007/255679/WHO_EVAP_UK_v30_WEBx.pdf?ua=1. Accessed 29 Jan 2018.
12. Dickinson A, Machen I, Horton K, Jain D, Maddex T, Cove J. Fall prevention in the community: what older people say they need. Br J Community Nurs. 2011;16:174–80.
13. World Health Organization. WHO global report on falls prevention in older age. 2007. http://www.who.int/ageing/publications/Falls_prevention7March.pdf. Accessed 30 Aug 2017.
14. More years, better lives—the potential and challenges of demographic change, Brussels. 2014. http://www.jp-demographic.eu/. Accessed 8 Sept 2017.
15. Marchibroda J. New technologies hold great promise for allowing older adults to age in place. J Am Soc Ageing. 2015;39:52–5.
16. Melis RJF, Olde Rikkert MGM, Parker SG, van Eijken MIJ. What is intermediate care? An international consensus on what constitutes intermediate care is needed. BMJ. 2004;329:360–1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC509331/. Accessed 21 Feb 2018.
17. Lewin G, Alfonso H, Alan J. Evidence for the long term cost effectiveness of home care reablement programs. Clin Interv Aging. 2013;8:1273–81. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3794867/pdf/cia-8-1273.pdf. Accessed 21 February 2018

18. Hochhalter AK, Smith ML, Ory MG. Successful aging and resilience: applications for public health and health care. In: Resnick B, Gwyther LP, Roberto KA, editors. Resilience in aging: concepts, research, and outcomes. New York: Springer; 2011. p. 15–29.
19. Eurostat. Active ageing and solidarity between generations. A statistical portrait of the European Union. 2011. http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-EP-11-001/EN/KS-EP-11-001-EN.PDF. Accessed 30 Sep 2017.
20. Hayashi T, Nomura H, Ina K, Kato T, Hirose T, Nonoqaki T, Suzuki Y. Place of death for the elderly in need of end-of-life home care: a study in Japan. Arch Gerontol Geriatr. 2011;53:242–4.
21. Salguero A, Martinez-Garcia R, Molinero O, Marques S. Physical activity, quality of life and symptoms of depression on community-dwelling and institutionalized older adults. Arch Gerontol Geriatr. 2011;53:152–7.
22. MacKean R, Abbott-Chapman J. Older people's perceived health and wellbeing: the contribution of peer-run community-based organisations. Health Soc Rev. 2012;21:47–57.
23. Low G, Molzahn A. A replication study of predictors of quality of life in older age. Res Nurs Health. 2007;30:141–50.
24. Coleman PG, Carare RO, Petrov I, Forbes E, Saigal A, Spreadbury JH, Yap A, Kendrick T. Spiritual belief, social support, physical functioning and depression among older people in Bulgaria and Romania. Aging Ment Health. 2011;15:327–33.
25. Turjamaa R. Older people's individual resources and reality in home care. 2014. http://epublications.uef.fi/pub/urn_isbn_978-952-61-1616-7/urn_isbn_978-952-61-1616-7.pdf. Accessed 16 Sep 2017.
26. Brodaty H. Meaning and measurement of caregiver outcomes. Int Psychogeriatr. 2007;19:363–81.
27. Beswick AD, Gooberman-Hill R, Smith A, Wylde V, Ebrahim S. Maintaining independence in older people. Rev Clin Gerontol. 2010;20:128–53.
28. Bennett K, Stenhoff A, Pattinson J, Woods F. 'Well If He Could See Me Now': the facilitators and barriers to the promotion of instrumental independence following spousal bereavement. J Gerontol Soc Work. 2010;53:215–34.
29. Burt J, Roland M, Paddison C, Reeves D, Campbell J, Abel G, Bower P. Prevalence and benefits of care plans and care planning for people with longterm conditions in England. J Health Serv Res Policy. 2012;17:64–1.
30. Del-Pino-Casado R, Frias-Osuna A, Palomino-Moral PA. Subjective burden and cultural motives for caregiving in informal caregivers of older people. Image J Nurs Sch. 2011;43:282–91.
31. Janssen BM, Van Regenmortel T, Abma TA. Balancing risk prevention and health promotion: towards a harmonizing approach in care for older people in the community. Health Care Anal. 2012;20:1–21.
32. Genet N, Boerma WGW, Kringos DS, Bouman A, Francke AL, Fagerström C, Melchiorre MG, Greco C, Devillé W. Home care in Europe: a systematic literature review. BMC Health Serv Res. 2011;22:207–21.
33. Stajduhar KI, Funk L, Roberts D, McLeod B, Cloutier-Fisher D, Wilkinson C, Purkis ME. Home care nurses' decisions about the need for and amount of service at the end of life. J Adv Nurs. 2011;67:276–86.
34. Lee UJ, Lee M, Moorhead S. Developing an electronic nursing record system for clinical care and nursing effectiveness research in a Korean home healthcare setting. Comput Inform Nurs. 2009;27:234–44.
35. Goodman C, Amador S, Elmore N, Machen I, Mathie E. Preferences and priorities for ongoing and end-of-life care: a qualitative study of older people with dementia resident in care homes. Int J Nurs Stud. 2013;50:1639–47.
36. Bosman R, Bours G, Engels J, de Witte L. Client-centred care perceived by clients of two Dutch homecare agencies: a questionnaire survey. Int J Nurs Stud. 2008;45:518–25.
37. Sockolow PS, Bowles KH, Lehmann HP, Weiner JP. Community-based, interdisciplinary geriatric care team satisfaction with an electronic health record. Comput Nurs. 2012;30:300–11.

38. Janlov AC, Hallberg I, Petersson K. Care managers' view of family influence on needs assessment of older people. Scand J Caring Sci. 2011;25:243–52.
39. Austin J, Dodge HH, Riley T, Jacobs PG, Thielke S, Kaye J. A smart-home system to unobtrusively and continuously assess loneliness in older adults. IEEE J Transl Eng Health Med. 2016; https://doi.org/10.1109/JTEHM.2016.2579638.
40. Wu Y-H, Wrobel J, Cornuet M, Kerhervé H, Damnée S, Rigaud A-S. Acceptance of an assistive robot in older adults: a mixed-method study of human–robot interaction over a 1-month period in the Living Lab setting. Clin Interv Aging. 2014; https://doi.org/10.2147/CIA.S56435.
41. Rees J, King L, Schmitz K. Nurses' perceptions of ethical issues in the care of older people. Nurs Ethics. 2009;16:436–52.
42. World Health Organization. Global age-friendly cities: a guide. Geneva: WHO; 2007.
43. Ontario Seniors' Secretariat (OSS), the Accessibility Directorate of Ontario (ADO), the University of Waterloo and McMaster University. 2013. Finding the right fit. Age-Friendly Community Planning, Ontario, Canada.
44. Movisie. Kennisdossiers: De drie decentralisaties in het sociale domein. 2015. https://www.movisie.nl/artikel/drie-decentralisaties-sociale-domein. Accessed 28 Dec 2017.
45. World Health Organisation. World report on ageing and health. Geneva: WHO; 2015.
46. Eliopoulos C. Gerontological nursing. 8th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2013.
47. European Commission. Population ageing in Europe: facts implications and policies. EUR 26426 EN, 2014.
48. WHO. Age-friendly PHC Centres toolkit. Geneva: World Health Organization; 2007.
49. Sørensen K, Van den Broucke S, Fullam J, et al. Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012;12:80.
50. Frost R, Belk C, Jovicic A, Ricciardi F, Kharicha K, Gardner B, Iliffe S, Goodman C, Manthorpe J, Drennan VM, Walters K. Health promotion interventions for community-dwelling older people with mild or pre-frailty: a systematic review and meta-analysis. MBC Geriatrics. 2017;17:157.
51. Dijkman B, Roodbol P, Aho J, Achtschin-Stieger S, Andruszkiewicz A, Coffey A, Felsmann M, Klein R, Mikkonen I, Oleksiw K, Schoofs G Soares C, Sourtzi P. European core competences framework for health and social care professionals working with older people. Ellan; 2016. 43p.
52. Wieczorowska-Tobis K, et al. The Camberwell assessment of need for the elderly questionnaire as a tool for the assessment of needs in elderly individuals living in long-term care institutions. Arch Gerontol Geriatr. 2015;62:163–8.
53. World Health Organization. European health information gateway. https://gateway.euro.who.int/en/indicators/hfa_491-5101-number-of-nursing-and-elderly-home-beds/visualizations/#id=19556&tab=table. Accessed 28 Dec 2017.
54. Ontario Seniors' Secretariat (OSS), the Accessibility Directorate of Ontario (ADO), the University of Waterloo and McMaster University. 2013. Finding the right fit. Age-Friendly Community Planning, Ontario, Canada.
55. Katz PR. An international perspective on long term care: focus on nursing homes. Am Med Dir Assoc. 2011; https://doi.org/10.1016/j.jamda.2011.01.017.
56. Verbeek-Oudijk D, van Campen C. Ouderen in verpleeghuizen en verzorgingshuizen. Landelijk overzicht van hun leefsituatie in 2015/'16. Den Haag: Sociaal Cultureel Planbureau; 2017.
57. Capezuti E, Hamers JPH. Perspectives on how to improve the nursing care of older adults. Int J Nurs Stud. 2013;50(9):1153–5.
58. Commissie Innovatie en Zorgberoepen & Opleidingen. Anders kijken, anders leren, anders doen: grensoverstijgende leren en opleiden in zorg en welzijn in het digitale tijdperk. Diemen: Zorginstituut Nederland; 2016.
59. Zorginstituut Nederland. Kwaliteitskader Verpleeghuiszorg. Samen leren en verbeteren. Diemen: Zorginstituut Nederland; 2017.

60. Mignani V, Ingravallo F, Mariani E, Chattat R. Perspectives of older people living in long-term care facilities and of their family members toward advance care planning discussions: a systematic review and thematic synthesis. Clin Interv Aging. 2017;12:475–84. https://doi.org/10.2147/CIA.S128937.
61. Boersma P. Person-centred communication with people with dementia living in nursing homes; a study into implementation success and influencing factors. Amsterdam: Proefschrift Vrije Universiteit; 2017.
62. Finnema E, Van der Kooij C, Droes RM, Wolter L. Psychosocial interventions. In: Schüssler S, Lohrmann C, editors. Dementia in nursing homes. Basel: Springer International; 2017. p. 29–53.
63. van der Kooij CH. Gewoon lief zijn? Het Maieutisch zorgconcept en het invoeren van geïntegreerde belevingsgerichte zorg op psychogeriatrische verpleeghuisafdelingen. Amsterdam: Academisch proefschrift Vrije universiteit; 2003.
64. van der Kooij CH, Dröes RM, De Lange J, Ettema TP, Cools HJM, van TW. The implementation of integrated emotion-oriented care: did it actually change the attitude, skills and time-spent of trained caregivers? Dementia. 2013;12:536–50.
65. Kitwood T, Bredin K. A new approach to the evaluation of dementia care. J Adv Health Nurs Care. 1992;1:41–60.
66. Beerens HC, Zwakhalen, SMG, Verbeek H, Ruwaard D, Hamers, JPH. Factors associated with quality of life of people with dementia in long-term care facilities: a systematic review. Int J Nurs Stud. 2013;50(9).
67. Halek M, Bartholomeyczik S. Verstehen und Handeln. Forschungsergebnisse zur Pflege von menschen mit Demenz und herausforderndesd Verhalten. Herdecke: Universität Witten; 2006.
68. Dewar B, Nolan M. Caring about caring: developing a model to implement compassionate relationship centred care in an older people care setting. Int J Nurs Stud. 2013;50(9).
69. Liu Y, Norman IJ, While AE. Nurses' attitudes towards older people: a systematic review. Int J Nurs Stud. 2013;50(9).
70. Huber M, Knottnerus JA, Green L, Horst H, van der Jadad AR, Kromhout D, Leonard B, Lorig K, Loureiro MI, Meer JWM, van der Schnabel P, Smith R, van Weel C, Smid H. How should we define health? BMJ. 2011;343:d4163.
71. Louis Bolk Instituut. New concept of health. 2011. http://www.louisbolk.org/health-nutrition/integrative-medicine-3/new-concept-of-health. Accessed 28 Dec 2017.
72. WHO. Worldwide palliative care alliance. Global atlas of palliative care at the end of life. 2014. http://www.who.int/nmh/Global_Atlas_of_Palliative_Care.pdf
73. Daveson B, Alonso J, Calanzani N, Ramsenthaler C, Gysels M, Antunes B, Moens K, Groeneveld E, Albers G, Finetti S, Pettenati F, Bausewein G, Higginson I, Harding R, Deliens L, Toscani F, Ferreira P, Ceulemans L, Gomes B, on behalf of PRISMA. Learning from the public: citizens describe the need to improve end-of-life care access, provision and recognition across Europe. Eur J Pub Health. 2013;24(3):521–7.
74. Woitha K, Carrasco JM, Clark D, Lynch T, Garralda E, Martin-Moreno JM, Centeno C. Policy on palliative care in the WHO European region: an overview of progress since the Council of Europe's (2003) recommendation 24. Eur J Pub Health. 2015;26(2):230–5.
75. van der Steen J, Radbruch L, Hertogh C, de Boer M, Hughes J, Larkin P, Francke A, Jünger S, Gove D, Firth P, Koopmans R, Volicer L, on behalf of the European Association for Palliative Care (EAPC). White paper defining optimal palliative care in older people with dementia: a Delphi study and recommendations from the European Association for Palliative Care. Palliat Med. 2014;28(3):197–209. https://doi.org/10.1177/0269216313493685.
76. World Health Organization (WHO). Strengthening of palliative care as a component of integrated treatment throughout the life course. Geneva: WHO; 2014. http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_31-en.pdf.
77. Gysels M, Evans N, Men ˜a A, Higginson IJ, Harding R, et al. Diversity in defining end of life care: an obstacle or the way forward? PLoS One. 2013;8(7):e68002. https://doi.org/10.1371/journal.pone.0068002.

78. Woitha K, Garralda E, Martin-Moreno JM, Clark D, Centeno C. Ranking of palliative care development in the countries of the European Union. J Pain Symptom Manag. 2016;52:370–7.
79. Woitha K, Hasselaar J, van Beek K, Radbruch L, Jaspers B, Engels Y, Vissers K. Volunteers in palliative care—a comparison of seven european countries: a descriptive study. Pain Pract. 2015;15:572–9.
80. Hall S, Petkova H, Tsouros AD, Costantini M, Higginson IJ, editors. Palliative care for older people: better practices. Copenhagen: WHO, Regional Office for Europe; 2011. (http://www.euro.who.int/__data/assets/pdf_file/0017/143153/e95052.pdf).
81. Robinson CA, Pesut B, Bottorff JL, Mowry A, Broughton S, Fyles G. Rural palliative care: a comprehensive review. J Palliat Med. 2009;12:253–8.
82. Boeckxstaens P, De Graaf P. Primary care and care for older persons: Position Paper of the European Forum for Primary Care. Qual Prim Care. 2011;19:369–89.
83. Centeno C, Lynch T, Garralda E, Carrasco JM, Guillen-Grima F, Clark D. Coverage and development of specialist palliative care services across the World Health Organization European Region (2005–2012): results from a European Association for Palliative Care Task Force survey of 53 Countries. Palliat Med. 2016;30(4):351–62.
84. Espinosa L, Young A, Walsh T. Barriers to intensive care unit nurses providing terminal care: an integrated literature review. Crit Care Nurs Q. 2008;31:83–93.
85. Vermandere M, De Lepeleire J, Van Mechelen W, Warmenhoven F, Thoonsen B, Aertgeerts B. Spirituality in palliative home care: a framework for the clinician. Support Care Cancer. 2013;21:1061–9.
86. Simon ST, Ramsenthaler C, Bausewein C, Krischke N, Geiss G. Core attitudes of professionals in palliative care: a qualitative study. Int J Palliat Nurs. 2009;15:405–11.
87. Radbruch L, Leget C, Bahr P, Müller-Busch C, Ellershaw J, de Conno F, Vanden Berghe P, on behalf of the Board Members of the EAPC Euthanasia and Physician-Assisted Suicide. A white paper from the European Association for Palliative Medicine. Palliat Med. 2016;30:104–16. https://doi.org/10.1177/026921631561652.
88. De Lima L, Woodruff R, Pettus K, Downing J, Buitrago R, Munyoro E, Venkateswaran C, Bhatnagar S, Radbruch L. International Association for Hospice and Palliative Care Position statement: Euthanasia and physician-assisted suicide. J Palliat Med. 2017;20:8–10. https://doi.org/10.1089/jpm.2016.0290.
89. Emanuel E. Euthanasia and physician-assisted suicide: focus on the data. Med J Aust. 2017;206(8):339–40. https://doi.org/10.5694/mja16.00132.
90. McLean S, Sheikh A, Cresswell K, Nurmatov U, Mukherjee M, Hemmi A. The impact of telehealthcare on the quality and safety of care: a systematic overview. PLoS One. 2013;8(8):e71238.
91. Barrett LL. Healthy@Home. AARP Knowledge Management for Blue Shield of California Foundation. 2008. http://assets.aarp.org/rgcenter/il/healthy_home.pdf. Accessed 22 Dec 2017.
92. Zheng RZ, Hill RD, Gardner MK. Engaging older adults with modern technology: internet use and information access needs. Hershey: IGI Global, Information Science Reference; 2013.
93. Nictiz. Meer dan Techniek: eHealth Monitor. Den Haag: Nictiz; 2016.
94. Islam SM, Kwak D, Kabir H, Hossain M, Kwak KS. The Internet of Things for healthcare: a comprehensive survey. IEEE Access. 2015;3:678–708.
95. Sadri F. Ambient intelligence: a survey. ACM ComputerSurv. 2011;43:1–66.
96. Dröes RM. Quality of life in dementia in perspective: an explorative study of variations in opinions among people with dementia and their professional caregivers, and in literature. Dementia. 2006;5:533–58.
97. Liu L, Stroulia E, Nikolaidis IA, Miguel-Cruz A, Rios Rincon A. Smart homes and home health monitoring technologies for older adults: a systematic review. Int J Med Inform. 2016;91:44–59.
98. Rashidi P. A survey on ambient-assisted living tool for adults. J Biomed Health Inform. 2013;17(3):570–90.

99. Agu E, Pederson H, Strong D, Tula B, He Q, Wang L, Li Y. The smartphone as a medical device: assessing enables, benefits and challenges. In: 10th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), vol. 1; 2013. p. 76–80.
100. Kaufman D. Enhancing older adults' social connectedness through digital games. Gerontol Geriatr Stud. 2017;1:1–2.
101. Naka F, Lu J, Porto A, Villagran J, Wu ZH, Anderson D. Impact of dermatology eConsults on access to care and skin cancer screening in underserved populations: a model for teledermatology services in community health centers. J Am Acad Dermatol. 2018;78:293–302.
102. O'Brien R (Producer), Laverty P (Writer). I, Daniel Blake [motion Picture]. London: Sundance Selects; 2016.
103. Czaja SJ, Charness N, FISK AD, Hertzog C, Nair SN, Rogers WA. Factors predicting the use of technology: findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE). Psychol Aging. 2006;21:333–52. https://doi.org/10.1037/0882-7974.21.2.333.
104. Zickuhr K, Madden M. Older adults and Internet use. Pew Internet. 2012. <http://www.pewinternet.org/reports/2012/older-adults-and-internet-use.aspx>. Accessed 22 Dec 2017.
105. Choi NG, Dinitto DM. The digital divide among low-income homebound older adults: Internet use patterns, eHealth literacy, and attitudes toward computer/Internet use. J Med Internet Res. 2013; https://doi.org/10.2196/jmir.2645.
106. Venkatesh V, Morris MG, Davis GB, Davis FD. User acceptance of information technology: toward a unified view. MIS Q. 2003;27:425–78.
107. Gatto SL, Tak SH. Computer, internet, and e-mail use among older adults: benefits and barriers. Educ Gerontol. 2008;34:800–11.
108. Carpenter BD, Buday S. Computer use among older adults in a naturally occurring retirement community. Comput Hum Behav. 2007;23:3012–24.
109. Berry R. Older people and the Internet. London: International Longevity Centre. 2011. http://www.ilcuk.org.uk/images/uploads/publication-pdfs/pdf_pdf_181.pdf. Accessed 24 Aug 2017.
110. Latulippe K, Hamel C, Giroux D. Social health inequalities and ehealth: a literature review with qualitative synthesis of theoretical and empirical studies. J Med Internet Res. 2017;19:e136.
111. Mitzner TL, Boron JB, Fausset CB, Adams AE, Charness N, Czaja SJ, Sharit J. Older adults talk technology: technology usage and attitudes. Comput Hum Behav. 2010;26(6):1710–21. https://doi.org/10.1016/j.chb.2010.06.020.
112. Xie B. Effects of an eHealth literacy intervention for older adults. J Med Internet Res. 2011;13(4):e90.
113. Forbes. Is Apple's iPhone No Longer Cool To Teens? 2013. https://www.forbes.com/sites/larissafaw/2013/01/09/is-apples-iphone-no-longer-cool-to-teens/#6c2f924133b1. Accessed 21 Dec 2017.
114. Pew Research Center. Tech adoption climbs among older adults. Washington: Pew Research Centre.
115. Fiske AD, Czaja SJ, Rogers WA, Charness N, Sharit J. Designing for older adults: principles and creative human factors approaches. New York: CRC; 2009.
116. Eysenbach G. Poverty, human development, and the role of eHealth. J Med Internet Res. 2007; https://doi.org/10.2196/jmir.9.4.e34.
117. Haggstrom DA, Saleem JJ, Russ AL, Jones J, Russell SA, Chumbler NR. Lessons learned from usability testing of the VA's personal health record. J Am Med Inform Assoc. 2011;18:13–7.
118. Zayas-Cabán T, Dixon BE. Considerations for the design of safe and effective consumer health IT applications in the home. BMJ Qual Safety. 2010;19:i61–7.
119. Friedman B, Kahn PH. Human values, ethics, and design. In: Jacko JA, Sears A, editors. The human-computer interaction handbook. Mahwah, NJ: Erlbaum Associates; 2002. p. 1177–201.
120. Span M, Smits C, Jukema J, Groen-van de Ven L, Janssen R, Vernooij-Dassen M, Eefsting J, Hettinga M. An interactive web tool for facilitating shared decision making in dementia-care networks: a field study. Front Aging Neurosci. 2015;7:128.

121. Lindqvist E, Nygard L, Borell L. Significant junctures on the way towards becoming a user of assistive technology in Alzheimer's disease. Scand J Occup Ther. 2013;20(5):386–96.
122. Tiwari P, Warren J, Day K. Empowering older patients to engage in self care: designing an interactive robotic device. AMIA Ann Symp Proc. 2011:1402–11.
123. van der Roest HG. Care needs in dementia and digital interactive information provisioning. Amsterdam: Academisch proefschrift Vrije Universiteit; 2009.
124. Oinas-Kukkonen H. A foundation for the study of behavior change support systems. Pers Ubiquit Comput. 2013;17:1223–35.

Part II

Competent Health and Social Care Professionals

Competent Health and Social Care Professionals Working with Older People

6

Bea L. Dijkman and Célia Cristina Casaca Soares

6.1 Introduction

In the first part of the book, the trends and developments in health and social care for older people in Europe are described; in this second part of the book, we describe the competences health and social care professionals need, keeping these developments in mind. The overarching goal of this European Core Competences Framework for working with older people in health and social care is to improve the care and support for older people in our ageing societies and changing health and social care systems all over Europe. The way this can be achieved is to ensure that those who work with older people are appropriately qualified and trained to carry out their roles responsibly and competently.

The framework describes the required competences of the health and social care professionals to effectively meet the needs of the older people they serve. Considering the sheer increase of older people and the changes in our health and social care systems, it is important for all health and social care professionals to acquire these competences. More than ever before, there is a need for health and social care professionals to make a more effective contribution and to continuously improve their

B. L. Dijkman (✉)
Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: b.l.dijkman@pl.hanze.nl

C. C. C. Soares
Department of Social Sciences and Humanities, School of Health, Centre for Interdisciplinary Applied Research in Health, Polytechnic Institute of Setubal, Setúbal, Portugal

Centro de Investigação e Intervenção Social (CIS-IUL), Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal
e-mail: celia.soares@ess.ips.pt

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_6

performance at work over time with the purpose to deliver the best care and support for the older person. The framework can help you to understand the current situation, identify the needs for further learning and develop your future career.

There are many competency frameworks that relate to professionals working in the health and social care sector.

In many European countries, every health and social care profession has their own competence framework, describing the competences that are needed for that specific profession. Some professions even have more than one competence framework for working with specific target groups or in specific settings. For example, on the Internet, you can find many different competence frameworks for the nursing profession, e.g. for nurses working in intensive care units and nurses working with oncology patients. This competence framework for working with older people can be used additionally to other competence frameworks for health and social care professions. It highlights especially those competences, skills and knowledge that are important for working with older people.

In the next paragraphs, we explain how the competence framework is structured in different roles, competences and performance indicators. Before we describe the different roles and competences in detail, there is a short paragraph about what older people themselves think about competent health and social care professionals.

In the different chapters about the roles, the most important issues for working with older people nowadays are highlighted.

6.1.1 Competence Framework

The competence framework describes the outcomes that professionals working with older people in different roles are expected to achieve and be able to demonstrate. The competence framework contains seven role descriptions of professionals working in health and social services. For each role, competences are formulated, making 18 in total. See Table 6.1 [1]. Each competence is elaborated in performance indicators, 182 in total.

The seven roles are based on the widely used CanMEDS Physician Competency Framework [2]. Within this framework, competences are defined as job-related descriptions of an action, behaviour or outcome that should be demonstrated in an individual's performance. Competences are person orientated, referring to a person's underlying characteristics and qualities, which lead to effective professional performance [3]. Performance indicators, in the context of the competences, are defined as skills, behaviours or practices that demonstrate the existence of the competence.

Acquiring a certain level of competence can be seen as the ability to use and combine your knowledge, skills and wider competences according to the varying requirements posed by a particular context, situation or problem. Put another way, your ability to deal with complexity, unpredictability and change defines/determines the level of competence. The level of complexity for this competence

Table 6.1 Roles and competences of the ECCF

Role	Competence
1. Expert	(a) Assessment Conduct an appropriate assessment and collect data in a systematic way from the older person and, when necessary, from his/her family or caregivers, about physical and mental wellbeing, housing conditions and social participation. Identify the needs and wishes of the older person
	(b) Analysis and problem identification Analyse the data collected from the assessment. Identify the problems and the risk factors for the older person and his/her family. Formulate a conclusion or, when applicable, a diagnosis
	(c) Planning Develop a clear, timely and appropriate individual plan with measurable objectives for the care and support for the older person and his/her family with the focus on optimal health, wellbeing and quality of life. Use appropriate techniques for shared decision-making
	(d) Carry out interventions based on professional standards Provide care, help and support to the older person and his/her family to improve or prevent further decline in mental and physical wellbeing, housing and living conditions and social participation. Carry out interventions based on professional standards
	(e) Evaluation Re-evaluate and adjust service or care plans for the older person on a continuing basis with the purpose of providing optimal care and support for the wellbeing of the older person and his/her family
2. Communicator	(a) Maintain relationships and effective communication Form strong positive relationships with older persons and their families, based on empathy, trust, respect and reciprocity. Communicate in a clear and effective way considering older person's individuality, dignity, personal and social background and needs
	(b) Empowerment Promote capacities and resources in older people and their families so that they can gain control over their lives and achieve their own goals according to their needs and expectations. Contributing to the improvement of the older person's autonomy, independence, wellbeing and quality of life
	(c) Coaching Encourage, motivate and coach the older person and relevant others in relation to self-management, self-reliance and co-reliance
3. Collaborator	(a) Integral cooperation and integrated services Work effectively together with other professionals for integrated care and support. Multi- and inter-professional cooperation to achieve optimal support and care for the older persons with the goal of optimising their health and wellbeing and quality of life in multiple locations
	(b) Informal care and support Work together with older people's supportive families, informal caregivers and their social network to encourage appropriate informal care and support

(continued)

Table 6.1 (continued)

Role	Competence
4. Organiser	(a) Planning and coordination of care and services Plan, arrange and coordinate the care and services provided by formal and informal health and social care workers, across different organisations, to provide the best personalised care and support for the older person and their family
	(b) Programme of care Contribute to the organisation of existing care and services within the region, which can be offered to groups of older people and their families. Take an active part in developing, adapting and implementing long-term policy actions relating to care and services for older people on a national, regional, local or organisational level
5. Health and welfare advocate	(a) Collective prevention and health promotion Advocate for health with, and on behalf of, older persons and their families, communities and organisations in order to improve health and wellbeing and build capacity for health promotion
	(b) Social map and social networks Access and share information or resources with older persons, their families and their caregivers, regarding the social map, healthcare benefits, social support and public programmes
6. Scholar	(a) Expertise Expand professional expertise for their own professional practice in relation to working with older people and their families. Spread relevant new evidence-based research among fellow professionals and other professionals in health and social care services
	(b) Innovation of care and support Interpret evidence-based results of research, and contribute to the development of knowledge and practical research in relation to the provision of care and support of older people and their families. Implement and apply new insights, protocols, standards, procedures and technologies with the aim of promoting the quality, efficiency and effectiveness of care and services provided to older people and their families
7. Professional	(a) Professional ethics Demonstrate commitment to best practices for the health and wellbeing of older people, their families and society through adhering to ethical standards and professional-led regulation and by showing high personal standards of behaviour
	(b) Professional commitment and personal awareness Reflect on one's own actions, and improve and innovate own professional behaviour to the highest quality of care and support possible for older people and their families. Demonstrate commitment to the health and wellbeing of older people and their families. Show awareness of diversity and cultural differences

framework aligns with the European Qualifications Framework (EQF) level 6, which is bachelor level [4]. This bachelor level of complexity is described in terms of autonomy by [5]:

- Knowledge: Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles
- Skills: Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study
- Competence: Managing complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts and taking responsibility for managing professional development of individuals and groups

6.1.1.1 Roles for Health and Social Care Professionals

Each professional performs tasks specific to different roles. Each of these roles requires different competences. For this set of European Core Competences for working with older people, the CanMEDS Physician Competency Framework is used for describing the different roles of professionals in health and social care [2]. The CanMEDS framework was developed by the Royal College of Physicians and Surgeons of Canada in the 1990s. This framework describes the knowledge, skills and abilities that specialist physicians need for better patient outcomes. It consists of seven roles: Medical Expert, Communicator, Collaborator, Manager, Health Advocate, Scholar, and Professional. Worldwide, the CanMEDS has been used in a modified way for other professionals as well [6], for example, occupational therapy midwifery, nutrition counselling, registered nurses and other professionals.

The major difference between the original CanMEDS and this competence framework is the understanding of the role of the Expert. In the CanMEDS framework, the role of the Expert is understood as an integration of (or the resulting performance in) all the other roles. However, in our case, we describe it as profession-specific competences. After graduation, a physiotherapist, for example, will be "expert in physiotherapy". The term "expert in…" is based on professional knowledge and skills acquired during formal education. It enables the individuals to act professionally and autonomously in their professional practice and in specific situations. The role of the Expert is specific to each profession, and it allows reflection on the function and role as well as the positioning of the specific profession in a given societal and health policy context. One can be called "expert in…" when the professional knowledge allows the individual to make an independent assessment in a specific field of expertise. The depth and the width of knowledge and skills vary depending on the profession, but they are always present and comply with the requirements for professional qualification. Within this competence framework, the competences described for the expert role are those needed for all professionals working in health and social care and in services working with older people.

The seven roles for health and social care professionals working with older people are Expert, Communicator, Collaborator, Organiser, Health and Welfare Advocate, Scholar and Professional.

Fig. 6.1 European Core Competences Framework—role model (*Image adapted from the CanMEDS Physician Competency Diagram with permission of the Royal College of Physicians and Surgeons of Canada. Copyright © 2015*)

The central role of Expert, based on professional expertise, is strengthened by other supportive roles and competences which are more or less equal for all health and social care professionals but with diverse focus or emphasis. Considering efforts to stimulate integrated care and services, and in working with the same group of people (older persons), the other supportive roles are comparable.

The role of Expert is central to the health and social care professional and draws on the competences included in the roles of Communicator, Collaborator, Organiser, Health and Welfare Advocate, Scholar and Professional (see Fig. 6.1). In the role of Expert, the professional is working directly with the older person and his or her family and social network. For most professionals in health and social care, this will be the main role. However, some professionals might have one of the other roles as their main role, for example, the role of Health and Welfare Advocate for social workers, with a more population-based approach than an individual focus.

6.1.1.2 Competent Health and Social Care Professional: The Views of Older People

Research focusing on perceptions and expectations of older people about the quality of care and competences of health and social care professionals has started to flourish, and results show a clear pattern emphasising the relevance of personalised or person-centred care [7, 8].

Analysis of the literature shows that the preferences of older people in different health and social care settings can be organised under two main domains: technical and task-oriented aspects and relational and socio-emotional components of competence in care [9].

The first domain highlights the ability and expertise of professionals manifested during situations of care [7], training in geriatrics and gerontology [10] and specific procedural skills [11]. In different contexts of intervention, older people value time

spent by professionals to give suitable information about issues related to their care and wish to receive clear explanations [12]. The second domain found in the literature addresses the ability to promote positive and reciprocal relationships with older people [13, 14]. Positive relationships require availability of professionals and envisage the possibility of shared decision-making [13, 15]. Caring characteristics of professionals such as friendliness, affection, kindness and support are also valued by older people [10] and contribute to higher levels of satisfaction [12].

It seems that the relational, communicational and socio-emotional skills of carers are more often mentioned by older people as being important, when compared to technical aspects of competence. These results were confirmed in a research project conducted within the ELLAN consortium [9].

6.1.1.3 Results of ELLAN Project

In six countries (Austria, Finland, Lithuania, Portugal, Turkey and the UK), a qualitative research project was conducted to explore older people's perceptions and expectations about the competences of professionals working with older populations in different European countries. Overall, the relevancy of a person-centred approach in care was a central element in ELLAN's findings. Older people who participated in this research have argued that being known and recognised as individuals is essential to achieve personalised and adapted care [9]. Accordingly, professionals need to be well aware that the person's biography is relevant to further develop this approach in care [9, 16]. Accounts of a person's previous life, habits and routines can offer important cues for his/her present behaviour and wishes [17]. Moreover, it can promote the understanding of the person's present needs and limitations [7, 9].

Interpersonal competences were also reflected on the nature of user-professional relationship. Older people highlighted the promotion of trustful, supportive and reciprocal relationships [15] and shared decision-making [13, 18] for competent health and social care [9]. Descriptions of affective and socio-emotional skills of professionals, such as kindness, friendliness and compassion, seem to mirror an important component of care for older people [9, 19].

Another relevant finding of this study is the remarkable awareness that older people have about the role of communication in care experiences with different professionals and various care settings [9]. They argue that positive communication styles have a significant impact on the way people perceive the quality of care [18]. Communicational skills of professionals will be further developed in chap. 8 dedicated to the role of Communicator.

But communicational skills of professionals are also related with technical and task-oriented aspects of care since exchange of reliable information depends on the type of language adopted by professionals [9, 20]. In fact, effective health education strategies that promote autonomy and independence of older people rely on the quality of communicational and educational strategies used by professionals and should be adapted to the present situation of the person [9].

Technical and task-oriented dimensions of competence are also linked to specialised knowledge and skills, particularly in terms of gerontology and healthy

ageing [18]. In ELLAN's study, older people claimed that there is a lack of specialists in these domains, reflecting the need to engage professionals and students in specialised training to improve the quality of care [9, 10]. The co-action of multidisciplinary teams and coordination of the available resources reflect another technical component of professional competence [9].

Personal vocation and commitment to the profession and compliance with the professional code of ethics (in terms of values, attitudes and behaviours) are part of professionalism of care providers and were also underlined as an essential requirement for working in older people's health and social care [9].

Within the context of professionalism, older people have also spoken about their negative experiences in care situations, which they perceived as expressions of negative attitudes and discriminating behaviours of professionals based on age categorisation. In fact, this finding has emphasised the potential consequences of ageist stereotypes related to older people and ageing processes and the impact of discriminating behaviours that affect the way older persons are treated [9, 21]. This topic will be further developed in Chaps. 8 and 13.

When comparing these findings with the seven roles, personal and interpersonal aspects of care were found to be broadly reflected in the roles of communicator and health advocate, while technical/professional dimensions appeared to be more associated with the expert, collaborator, manager, scholar and professional roles.

References

1. Dijkman B, Roodbol P, Aho J, Achtschin-Stieger S, Andruszkiewicz A, Coffey A, Felsmann M, Klein R, Mikkonen I, Oleksiw K, Schoofs G Soares C, Sourtzi P. European core competences framework for health and social care professionals working with older people. Ellan; 2016. 43p
2. http://www.royalcollege.ca/rcsite/canmeds-frameworks-e (1996, updated 2005 and 2015).
3. McMullan M, Endacott R, Gray MA, Jasper M, Miller CM, Scholes J, Webb C. Portfolios and assessment of competence: a review of the literature. J Adv Nurs. 2003;41(3):283–94.
4. Framework A. For qualification of the European higher education area. Bologna working group on qualification framework. Copenhagen: Ministry of Science, Technology and Innovation; 2005.
5. https://ec.europe.eu/ploteus/en/content/descriptors-page.
6. Sottas B. Learning outcomes for health professions: the concept of the Swiss competencies framework. GMS Z Med Ausbild. 2011;28(1).
7. Bridges J, Flatley M, Meyer J. Older people's and relatives' experiences in acute care settings: systematic review and synthesis of qualitative studies. Int J Nurs Stud. 2010;47(1):89–107. https://doi.org/10.1016/j.ijnurstu.2009.09.009.
8. Manthorpe J, Moriarty J, Rapaport J, Clough R, Cornes M, Bright L, Iliffe S. There are wonderful social workers but it's a lottery': older people's views about social workers. Br J Soc Work. 2008;38(6):1132–50. https://doi.org/10.1093/bjsw/bcl379.
9. Soares CC, Marques AM, Clarke P, Klein R, Koskinen L, Krasuckiene D, Lamsodiene E, Piscalkiene V, Küçükgüçlü Ö. Older people's views and expectations about the competences of health and social care professionals: a European qualitative study. Eur J Ageing. 2018:1–0.
10. Rodríguez-Martín B, Martínez-Andrés M, Cervera-Monteagudo B, Notario-Pacheco B, Martínez-Vizcaíno V. Perception of quality of care among residents of public nursing-homes in Spain: a grounded theory study. BMC Geriatr. 2013;13(1):65.

11. Van der Elst E, de Casterlé BD, Gastmans C. Elderly patients' and residents' perceptions of 'the good nurse': a literature review. J Med Ethics. 2012;38(2):93–7.
12. Peck BM. Age-related differences in doctor-patient interaction and patient satisfaction. Gerontol Geriatr Res. 2011:137492. https://doi.org/10.1155/2011/137492.
13. Berkelmans PGJ, Berendsen AJ, Verhaak PFM, van der Meer K. Characteristics of general practice care: what do senior citizens value? A qualitative study. BMC Geriatr. 2010;10:80. https://doi.org/10.1186/1471-2318-10-80.
14. McIntyre A, Reynolds F. Developing person-centred care: addressing contextual challenges through practice development. Online J Issues Nurs. 2012;16(2):3. https://doi.org/10.3912/OJIN.Vol16No02Man03.
15. Janssen BM, Van Regenmortel T, Abma TA. Identifying sources of strength: resilience from the perspective of older people receiving long-term community care. Eur J Ageing. 2011;8(3):145–56. https://doi.org/10.1007/s10433-011-0190-8.
16. Clarke A, Hanson EJ, Ross E. Seeing the person behind the patient: enhancing the care of older people using a biographical approach. J Clin Nurs. 2003;12:697–706. https://doi.org/10.1046/j.1365-2702.2003.00784.x.
17. Edvardsson D, Winblad B, Sandman PO. Person-centred care of people with severe Alzheimer's disease: current status and ways forward. Lancet Neurol. 2008;7(4):362–7.
18. van de Pol MH, Fluit CR, Lagro J, Niessen D, Rikkert MG, Lagro-Janssen AL. Quality care provision for older people: an interview study with patients and primary healthcare professionals. Br J Gen Pract. 2015;65(637):e500–7. https://doi.org/10.3399/bjgp15X686065.
19. Marcinowicz L, Pawlikowska T, Oleszczyk M. What do older people value when they visit their general practitioner? A qualitative study. Eur J Ageing. 2014;11:361–7. https://doi.org/10.1007/s10433-014-0313-0.
20. Holm AL, Severinsson E. A qualitative systematic review of older persons' perceptions of health, ill health, and their community health care needs. Nurs Res Pract. 2013:672702. https://doi.org/10.1155/2013/672702.
21. Abrams D, Vauclair C-M, Swift H. Predictors of attitudes to age across Europe. 2011. http://kar.kent.ac.uk/29734/1/rrep735.pdf. Accessed 20 Nov 2013.

Expert

7

Petrie F. Roodbol

Learning Objectives

You

- Recognize the individual needs (physical, psychological, social and spiritual) of an older person or a group of older persons by a systematic assessment.
- Identify the desired outcomes and the importance of shared decision-making with older persons based on their systematically gathered needs.
- Are able to select interventions to meet older person's needs and improve wellbeing.
- Are able to use selected interventions to improve older persons' individual or group needs.
- Are able to evaluate selected interventions and desired outcomes.

7.1 Introduction

Health and social care professionals play a central and critical role in providing good care and support for older people and their families with the focus on health and wellbeing. The expert role is the central role of the social and health professional and involves the provision of care and support for older people based on a thoroughly performed assessment. All other roles of the European Core Competences Framework (ECCF) [1] strengthen this role and are needed to perform the role of Expert. The other roles can also be performed independently. However, the content of the "Expert role" is specific and characteristic for each profession and reflects the function of the professional as well as the position within a given societal and health policy context.

P. F. Roodbol (✉)
Research Group Nursing Diagnostics, School of Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: P.F.Roodbol@pl.Hanze.nl; p.f.roodbol@umcg.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_7

The scope of the care and support for the older person is the maintenance of his/her physical, mental, social and spiritual state but also by promoting autonomy and participation in spite the ageing process. The depth and the width of knowledge and skills about health and wellbeing of older people vary depending on the profession, but they are always present and must comply with the requirements for professional qualification. The older person is seen as a unique and complex person within her or his system (personal situation) and as a partner of the health and social care professionals. The vision of the professional is holistic and person-centred. The interrelatedness of physical, mental, social and spiritual state is typical for older people. That makes the care and support for older people complex. This interrelatedness effects the correlation of the systems but also within a system as was discussed in part one of the book. Professionals form a collaborative relationship with the older person and their family. Cultural differences and differences in the healthcare systems influence the professional care and support for older people. In the Southern European countries, the family has more responsibilities to take care for their older relatives than in the Northern where the government takes the responsibility for them. The use of professional paid help and the amount of residential care are coherent with healthcare systems. However, individual autonomy and living independently in own environment are generally seen as important values. Although there are a lot of varieties between the different health and social care professions and between European countries, there are many equalities in the competences needed for working with the specific group of older people. Within the Expert role of this competences framework, the competences described are those required for all health and social care professionals working with older people.

Example

Mr. R., 80 years old, has been hospitalized in a university hospital far from his home because of a trigeminus neuralgia in his cheek and jaw. Trigeminal neuralgia is a sudden, severe facial pain, often described as a sharp shooting pain or like having an electric shock. He has been treated in a local hospital with medication and with glycerol injections but unfortunately without result. He will undergo a microvascular decompression (MVD) which is a highly specialized surgical procedure and is therefore sent to university hospital. Mr. R. has no other physical complaints, but he is familiar with serious phobia and periods with depression. His wife, also 80 years old, accompanies him during his hospitalization. She will stay in a hotel nearby. Normally the couple lives independently.

The surgery procedure succeeds. The day after surgery, the physicians decide to reduce the high-dosed pain medication. Three days after surgery, a new nurse takes care for Mr. R. He is very silent and speaks hardly. His wife, who looks nervous, tells her he never talks very much because of his depressions and also because of her deafness. The nurse is an expert in geriatrics; she is alarmed by his history and situation for the risk of a delirium. She assesses his mental statement and identifies a hypoactive delirium. This is a serious problem, and she warns the physician. Delirium during hospitalization is associated with co-morbidity, functional decline

and even and mortality. While waiting for the physician, the nurse transports the patient to his own room. Mrs. R. reacts strange and does not seem to understand the situation.

After a thorough assessment, the physician concludes that the reduction of the pain medication of Mr. R. causes cognitional side effects, and he changes the medication again. He concludes that the best for the recovery of Mr. R. will be to go home to his normal environment as soon as possible. However, the nurse is afraid that Mrs. R. cannot handle the situation. She recognizes the signs and symptoms of a beginning dementia. She thinks the couple cannot go home in this situation without help, and she consults a social worker.

Dementia, delirium and depression have been called the three Ds of cognitive impairment in older persons (see Chap. 3). The recognition of the different signs and symptoms is hard but important for every health and social professional for working with older people for eligible interventions.

This example shows:

1. The importance of observation.
2. The need to involve different professionals to cover all problems.
3. The recognition of signs and symptoms of age problems.
4. The importance to pay attention not only to the client but also to his social system. Older people have older partners who will be the caregiver at home.
5. The importance of shared decision-making to increase autonomy and to develop tailor-made solutions.
6. The responsibility to take care for the whole chain of involved organizations like a safe discharge from the hospital to the home situation.

This example shows also the need to perform all roles of the European Core Competences Framework (ECCF). The involvement of different professions asks for collaboration, communication and organization. As a health and welfare advocate, the nurse is concerned about Mrs. R. as well and their home situation. Indirectly she shows her knowledge of older persons and their problems derived from her role as scholar. She is careful with her supposition; integrity belongs to her role as professional. To perform the role of Expert, the knowledge discussed in part I of the book is needed to recognize the need of older people and to choose the proper interventions.

7.2 The Role of Expert

Health and social care professionals possess a defined body of knowledge and disciplinary and procedural skills and attitudes, which are directed towards providing optimal person-centred, support for wellbeing and health from their own particular scope of practice. These professionals possess insight into the ageing process, physiological, mental, social and emotional, spiritual and cultural, the diversity of the

older population and their specific needs. Their focus can be the individual as well as an ageing group. With ageing the physical and mental condition changes, and this may cause one or more chronic diseases, functional decline and cognitive impairment which affects the possibilities for activities and societal participation.

Health and social professionals apply competences in order to collect, interpret and analyse information of older persons, make appropriate decisions and plans, carry out diagnostic and (therapeutic) interventions and supportive methodologies within the context of their profession and evaluate effectiveness of interventions. Supportive methodologies may be informational, emotional, tangible help or integration, and if indicated care (prevention, self-care support, disease management, high complex care) is provided for the older persons in all situations, including palliative and terminal conditions.

In the Expert role, the health and social care professionals use a systematic approach. Although there are different models and methods, most of them use five interrelated phases: assessment, analysis and problem identification, planning, implementation/interventions and evaluation. The competences included in the Expert role are related to these five phases. In all phases health and social care professionals pay attention on physical and mental wellbeing, social participation and activities and housing and living conditions.

7.2.1 Knowledge and Understanding of the Ageing Process

The needed body of knowledge, disciplinary and procedural skills and attitudes are extensive and are linked to your own profession. In general, all health and social care professionals working with older people need basic knowledge and understanding about ageing and older people. This includes:

- Physiological changes by ageing (skin, bones, teeth)
- Vulnerability for chronic diseases
- Cognitional problems, depression, dementia and delirium
- Vulnerability for functional decline
- Sensory problems
- Mobility, movements and lifestyle
- Nutrition, malnutrition and obesity
- Pain and comfort
- Social participation and social support
- Environmental safety and living conditions
- Emotional health, spirituality and distress
- (Health) illiteracy and self-efficacy
- Polypharmacology and addiction
- Elderly abuse

The depth of the needed knowledge depends on the specific profession and varies from recognizing signs and symptoms to interventions. A multidisciplinary approach is inevitable.

To summarize the main problems of ageing, a compact overview follows (see also Chaps. 2 and 3). Although ageing is universal, the ageing process has an individual rate. Determinants of ageing vary from genes to pollution and from social economic status to disease state. Ageing is a complex process among others within the DNA structure of the cells. Ageing causes changes in the colour and volume of the hair, wrinkles in the skin and yellowing of the teeth but also changes in the body composition and organs; older people are vulnerable for infections and chronic diseases. Bones and teeth are thinner and less severe. Cognitive function may decline as a result of a decrease of the number of neurons. Ageing may cause depressions and anger for what will come. The decline in physiological reserve in organs makes the older people develop some kinds of diseases and have more complications from mild problems (such as dehydration from a mild gastroenteritis). Multiple problems may compound: A mild fever in older persons may cause confusion, which may lead to a fall and to a fracture of the neck of the femur ("broken hip"). All senses may lose their acuity: vision, hearing, smell, taste and touch. These cause discomfort but also increase risks for falls, isolation and malnutrition. Hearing problems can lead to social isolation, depression and dependence as the person can no longer talk to other people and receive information over the telephone. Vision problems lead to falls from tripping over unseen objects, problems to take the right medication and isolation.

Classic for older adults is the frailty syndrome. The so-called geriatric giants are the major categories of impairment that appear in older people, especially as they begin to fail. These include immobility, instability, incontinence and impaired intellect/memory which were discussed in part one of the book. Probably 20% of community-dwelling older adults have incontinence in a way that they feel limited to some aspects of their lives. Because of embarrassment, older people may hide and deny urinary incontinence. It may limit their social participation and activities and decrease quality of life. The causes can be neurological, functional or iatrogenic.

With ageing, the number of family members and friends will decrease, but also the energy to participate in the society decreases. Retirement gives more leisure time but may also decrease self-esteem and identity. Independent living cannot be taken for granted. Retirement may cause financial problems with implications for life-style and social contacts. The health and social care professional must oversee all these factors to offer adequate help. Typical for older persons is the interplay of all problems.

7.2.2 Systematic Approach

All health and social care professionals learn to use a systematic approach in their work. A systematic approach is a methodological approach to a process, through a step by step procedure that can be repeated and involves quality and learning. The process is used to determine the interventions based on assessment and includes an evaluation of the outcomes. The goal of a systematic approach is to identify the most effective interventions to generate consistent, optimum health and wellbeing for the older person and his/her family (Fig. 7.1).

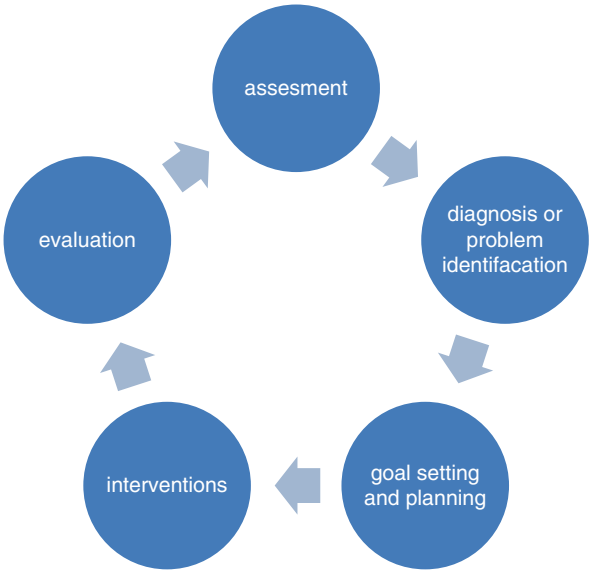

Fig. 7.1 Steps of a systematic approach

This process is a part of the professional role, but this methodically way of working is not specific for older persons. However the required competences (knowledge, atitude, skills) need to be specified for the target group for all phases of the process. General characteristic for the care and support for older persons is their need for a comprehensive, detailed assessment of their physical, psychosocial, emotional and spiritual functioning with an integration of the findings. Geriatric assessment is a multifaceted approach that focuses on understanding the physical, cognitive, psychological, spiritual and social domains of an individual older adult. A crucial component of geriatric assessment includes the screening and evaluation for geriatric syndromes. It takes time to gather all relevant detailed information with well-established tools and to observe the client as well due to their medical and/or social complexity. A partner or a close relative needs to be involved in most cases. It is important to stimulate shared decision-making, inform patients/clients about the goal of the assessment and encourage them to bring in written lists of concerns as well as all medications. If applicable, it is good to request previous (medical) records from other professionals. Be aware that an older person might need time to make up his/her mind and to speak.

Assessments are made initially at the start but also and continuously throughout the care and support process. The remaining phases of the process depend on the validity and completeness of the initial data collection. In most care institutions, a standardized assessment is available, based on their mission or core values for their target group. Examples are “living independently as long as possible in own environment” or “enhanced quality of life and preserved dignity”. The assessment can be extended with screening tools, for example, for risks assessments such as functional decline, fall incidents and infections. Prevention is important as well. An

assessment is comparable with a semi-structured interview. Answers may lead to new questions; it is an interactive process, also with the use of a standardized assessment. Every client is unique.

An assessment is merged with observations. Each involved professional observes the older person from his/her particular scope of practice. What is his/her appearance, behaviour, speaking, movements and dressing? The use of sentences may help a professional to complete a whole picture of the older person. Observations help the care and social professional to get a first impression and to prioritize the aspects for further assessment.

An assessment is the start of each activity or intervention done for and with the older person, systematically and continuously. Results are analysed and the problems are indicated. With these findings you may construct a careplan. Make decisions regarding interventions or advise in order to attain the goals. Where possible these targets are adjusted with the older person and/or his/her caretaker and the health and social care professional. In the example below, a case of an older person is described that shows the importance of different assessments and the extend and interrelated of the problems.

Example

Mr. A., an 85-year-old man, suffers from slightly progressive aphasia due to what he thought ageing. However, one morning, he has had an epileptic seizure and was brought to the hospital, after the 112 call by his 83-year-old wife. He appeared to have a brain tumour. He refused the supposed therapy: an extensive surgery, and his wife agreed with him. They think that their life is complete. There are no alternative treatments. Mr. A. wants to go home with medication against the seizures and is aware of the fact that he will die within a few months. The couple lives independently in a house in a world city. The hospital team (physicians and nurses) understands his decision and decides to palliative care, preferably at home.

The hospital team is extended with a social worker. She takes an assessment of the couple including Mrs. A. to find out her possibilities for the care her husband and her healthcare needs now that Mr. A. will become more and more dependent. Based on the assessment, the interventions will have as desired outcome the achievement of the best possible quality of life for Mr. A. and providing support for his family and carers.

The social worker observes Mr. and Mrs. A. are an older couple with a good relationship. Despite his aphasia, Mr. A. seems cognitive alright. Mrs. A. seems a slightly panicle and insecure, but during the assessments, she shows to have insight in the situation and what is needed.

Mrs. A. has had breast cancer and suffers from lymphoedema in her arm. She is vulnerable for infections and a bit clumsy. Mr. A. did part of the household, and he took care for the meals as well. They do the shoppings together by car. Only Mr. A. has a driver's licence. In his current condition, he is not allowed and not capable anymore to drive. Although they are living in a world city, there is no supermarket in the neighbourhood with exception of a small Turkish supermarket, where they never have been. Mrs. A. is responsible for the finances. Although they are originally Roman Catholic, they do not go to church any more. They have two adult

children living at the other side of the country and two adult grandchildren living abroad. They hardly have any friends. Spiritually they are in balance and do not need a priest. They are living in a house with three floors, a living room on the ground floor, a bedroom and the bathroom on the second floor.

The social worker concludes after an extensive and detailed assessment that they seem emotionally and cognitively strong enough to handle the situation but that Mr. A. has a progressive deficit for ADL (activities of daily living, like bathing, toileting and eating) and is at risk for pain and impaired comfort. The couple has an IADL deficit (instrumental activities on daily living like cooking, shopping and cleaning) and is at risk for social isolation. However, it is possible to attain the goals of the palliative care with a couple of interventions. The social worker makes a plan of the interventions and makes the arrangements. A home care service is involved for the ADL of Mr. A., including help for housekeeping.

The couple will also be connected with an alarm to the home care organization in case of an emergency. This organization will also deliver a hospital bed and some other devices for toilet and bath. Medication will be delivered at home by the pharmaceutical service. She suggests to consult a speech therapist for communication devices.

A meal service will provide their dinners. Mrs. A. will take care for the breakfast and lunch by herself. The needed shoppings will be delivered by a special service of a known supermarket chain. For small things Mrs. A. may go to the little Turkish supermarket around the corner. She is shy to go in because she is not familiar with the products and the culture, but she also sees the necessity. The social worker suggests to ask one of the children to join with her the first time and explains something about the similarities and the differences with the west European cuisine.

To bridge the physical distance with their children, a camera with an Internet connection is installed so that they can contact them easily and vice versa. One of the children will visit the couple every week.

Mrs. A. is capable to do the administration and financial settlement by herself.

The general practitioner will be informed by the neurologist. He will play an important role in this palliative phase together with the home care team for adequate pain medication and comfort. Mr. A. can go home as soon as all the supplies are delivered there.

The social worker will visit the couple in a week to evaluate her plan and to assess the situation. Then the home care team will take over the total care of the couple.

This example shows the extension of a geriatric case, based on the assessment and observation the whole picture becomes clear: physical and, psychosocial and spiritual aspects. It shows also the complexity of the care and support of older adults. There is a variety of aspects to consider with even the social environment as an important factor to realize a comfortable and safe situation for the couple. All questions of the assessments lead to interventions which are directed to the formulated goal: the achievement of the best possible quality of life for Mr. A. and providing support for his family and carers. And just like in the previous example, the focus is not only the patient but also his partner. An assessment is a first step, followed by setting up of goals, planning of interventions and realizing them, with

constant evaluation of the situation and the formulated goal. Next to questioning, observations are important.

7.2.2.1 Observations

Observation is an active acquisition of information, from a primary source, using your senses. In an assessment, observations help you to verify your findings from the interview with the older person. An older person may say that his memory is all right but showing the opposite during the interview. Or you notice a soiled household while visiting an older person. This observation directs you to assess his/her social situation. Observations are goal directed. In general, you want to know the wellbeing of the older person. But the observation can also be more specific, for example, the behaviour of an older person with dementia with as goal to see how you can make contact.

For observation you need your eyes; what is your general impression of a person and how is his/her behaviour? Listening is important as well. Not only what a person tells you but also how and may be what he does not talk about. What is his body language? It is important to be empathetic, but you need distance as well to stay objective and neutral. Mutual trust is a prior condition. Only then an older person will behave naturally and be open for a conversation. Privacy is important as well. Take into account the goal of the observation and the appropriate time and place. Be accurate and make notes. For some health and social care professionals, touching is an observation tool as well. A physiotherapist may feel weak muscles and also think of physical examinations in general. And even smelling can be used. A not regulated diabetes patient smells like acetone, an infected wound may smell as well and an alcohol abuser smells like alcohol.

Knowledge is needed for a good observation. When you do not know that one of the early signs of memory problems may be withdrawing from social activities, you probably will not notice this. When you are not familiar with polypharmacy, you will not be alert in this. Like the assessment, an observation includes physical, mental and social aspects.

7.3 Competence: Assessment

7.3.1 Competence Description

Conduct an appropriate assessment and collect data in a systematic interactive way by questioning and observing the older person, his/her partner or caregivers, sometimes followed by an extra examination or tests about physical and mental wellbeing, living conditions and social support. The aim is to identify the needs and wishes of the older person.

Make sure the assessment is complete and contains all necessary information about the older person's mental and physical wellbeing, social participation and housing and living conditions. The assessment must be well documented according to the regulations of the organization. The older person needs to be well informed about the further process.

Performance Indicators

- Choose the appropriate (validated, personalized, standardized) assessment instruments and screenings instruments.
- Obtain basic information before the visit. Encourage patients to bring in written lists of concerns as well as all medication. If applicable, request previous (medical) records from other professionals.
- Take time for the assessment; be patient, interested and reliable.
- Inform the older person (and when necessary, the family/carer) about the purpose and process of the assessment.
- Collect data by observing and interviewing the older person and/or the family network. Some health and social care professionals also collect data by physical examinations.
- Use alternative sources of information when the older person is unable to respond physically or to communicate.
- Consider a life history.
- Gather information about mental wellbeing.
- Gather information about physical wellbeing and physical functioning.
- Gather information about housing and living conditions. The focus is on the living environment as it relates to functional, physical, cognitive, psychological and social care needs of the older person.
- Gather information about social participation and functioning.
- Discuss the results of the assessment with the older person, the expectations and the further process.
- Present well-documented assessments and recommendations in written and oral form.
- Complete documentation accurately and in timely fashion.

7.3.2 Screening Instruments

Example

A physiotherapist assesses a new patient of 89 years old on request of the general practitioner for fall risks. From the answers the patient gives, he suspects a starting cognitive impairment. For an impression of her mental state, he uses a mini-mental state examination with questions such as "what is the date?" and "what is your mother's maiden name?". He reports his findings for fall risks back to the general practitioner with a recommendation for a more intensive examination of her mental functioning. He advices his patient to visit the general practitioner again because he suspects memory loss.

This example shows the interdisciplinary dependency and the use of screening instruments. There are many geriatric screening instruments that can be used to evaluate the complex health needs of the older adults. Just a few examples are the mini-mental state examination, Katz Activities of Daily Living Scale [2] or for screening of the ADL functioning as well as the Barthel index [3].

Validated screening instruments are available for many aspects to get immediate important information of an older person. The important thing is the use of the same instruments in a setting. An assessment is comprehensive and usually considers multiple domains of functioning. By an assessment, important information is gathered that may lead to problem identification. Screening instruments are standard validated short lists of questions which you must score, and this gives you an immediate picture of a certain aspect of an older person.

7.3.3 Preparation of an Assessment

An assessment with an older person takes time. It is recommended to confirm an appointment made by telephone or by a letter. There is a chance that an older person has some memory loss, and a letter helps to remind the appointment. The place and time of an assessment is important as well. Schedule the appointment on a moment that the older person is equipped, but not just after a nap. Sometimes a person needs some time to wake up again. An assessment at home is preferable: the older person is in a comfortable environment, and the professional gets a first impression of his living circumstances. An assessment is privacy sensitive. When the assessment takes place in an institution, choose a place where no other persons can interfere. It is import to feel comfortable during an assessment. When an older person notices that there is a lack of time, he or she can be nervous and holding back information. Gather information as much as possible before the visit. A general practitioner may have a record of the person and a medication list. Mostly it is recommended to invite a partner or a child to be present during an assessment. But there are also reasons to speak with the older person alone, when the partner or the child is very dominant or when you suspect abuse.

Check if the older person you are going to assess is capable to speak. Sometimes pictures are necessary or electronic devices for supporting the communication.

There are advantages but also disadvantages by letting the assessment form fill in beforehand by the older person. All the information you need will be given, but you do not know if the form is filled in by the older person or by a relative. And next to that it is not only the information you want. You want to build up a relation. For the observations, the way older persons give you answers is important too. It is not only because of the facts. It is also to start a relation, a contact and an impression of the older person.

A part of the preparation of an assessment is setting up the goal. Why do you want a relation, and what is the proposed need of the older person where you think an intervention is needed? What is your focus and can you justify that?

An assessment in an acute situation needs to be limited to the priorities for that moment. Which ones depend on the situation? In case of a serious physical incident, the physical history on that moment is very important. Besides that attention must be paid to a possible non resuscitate statement. Who are the relatives and how can they be warned? When the situation is stabilized, a more extended assessment can be performed.

7.3.4 Life History

For a more sustainable relationship with an older person and a health or social care provider, a person-centred approach is highly recommended. Consequently, health and social care professionals deepen their professional relationship and find it more rewarding, and knowing more about the younger years of an older person also diminishes ageist thoughts and attitudes. The professional learns to know the person behind the older person as an individual. To get more insight in his or her background, values and beliefs, a life history can be considered. One way that this might be achieved is through the use of biographical approaches. Biographical approaches provide older people with opportunities, if they want to talk about their life experiences and life history – family, friends, work history and hobbies. Often photographs and personal belongings are used as triggers to discussion. Particularly the circumstances that have shaped their experiences potentially provide greater insight into their needs and aspirations.

7.3.5 Assessment of Mental Wellbeing

Like we stipulated before, an older person's needs are integrated in the physical, psychological, social and maybe the spiritual domain. But that is no reason to highlight some aspects in particular.

In the example of the physiotherapist assessing a new patient of 89 years old on request of the general practitioner for fall risks, the physiotherapist took a mini-mental state examination (MMSE) [4]. The assessment of the ageing individual's mental status is classified into three specific areas: mental status, depression and substance abuse. An example of a screening instrument is the mini-mental state examination. The mini-mental state examination is an instrument for screening of cognitive limitations at older persons. The test evaluates cognitive functions: orientation, memory, concentration and practice.

Ageing may cause a feeling of loss of control. Chronic illness, the loss of a partner, decreased mobility and cognition make an appeal on the adaptability. In later life the number of losses of significant others like relatives and friends may be increased by illness, death and decreased mobility. Adaptability depends on personal factors, characteristics, the degree of independency and extraversion. Older people who were very dependent during their lives will have more problems to adapt to the changing circumstances which are inherent on ageing.

Performance Indicators for Assessment of Mental Wellbeing

Perform the assessment appropriately and gather information about **mental wellbeing**, including:

- Cognition and memory
- Mood, with special attention for depression, loss and grief, and stress factors
- Signs and symptoms of delirium
- Signs and symptoms of dementia
- Quality of life and life satisfaction

- Relationships
- Feelings of loneliness
- Feelings about the future (death anxiety)
- Coping abilities
- Self-management and self-reliance
- Factors of personal history transitions and adaptations to changes over the life cycle influencing mental wellbeing
- Life goals, personal preferences and wishes
- Recent changes in behaviour

Older Immigrants

Special attention must be paid to older immigrants. They are more vulnerable for problems than autochthonous older persons. Their social status is mainly low due to poor education and limited financial resources. A low social status is also an indication for health and social problems. The health literacy of the older immigrants may be low, and their knowledge about the possibilities of services, health as well as social may be inadequate. Older immigrants may have limited capability to speak and understand the national language, and this enlarges their problems. They have problems with filling in forms. The number of illiterates is higher than the average. Mental problems are recognized late due to language problems and limited knowledge of the health and social services, mental problems like dementia are recognized late. They have problems with therapy compliance and taking medication. They are not familiar with their biology and their diseases. The medication leaflets are hard to read and understand for them. They are vulnerable for loneliness. There is a special European non-profit organization ENIEC (http://www.eniec.eu/) for the exchange of ideas and for building a body of knowledge for the care and support for older immigrants.

7.3.6 Assessment of Physical Wellbeing and Physical Functioning

Similarly, as about the mental state, there are validated screening instruments to get information of parts of the physical wellbeing and physical functioning as well. An example is the frequently used screening tool for malnutrition, the Simplified Nutritional Appetite Questionnaire (SNAQ) that predicts weight loss, and filling it takes only 5 min. Malnutrition is associated with poor health outcomes. The prevalence of malnutrition among institutionalized and community-dwelling older persons varies between 30–60% and 2–10%. Moreover, there are more measurement instruments to be used, for example, in testing pain, frailty and ADL.

Performance Indicators for Assessment of Physical Wellbeing and Physical Functioning

Perform the assessment appropriately, and gather information about **physical wellbeing and physical functioning**, including:

- Activities of daily living (ADL)
- Instrumental activities of daily living (IADLs)

- Main physical complaints
- Endurance and fatigue
- Pain and coping with pain
- Chronic diseases such as cardiovascular disease, cancer and diabetes
- Respiratory diseases such as pneumonia and the flu
- Incontinence
- Musculoskeletal problems such as arthritis
- Hearing problems
- Eyesight problems
- Oral health, chewing and swallowing
- Sleeping habits and problems
- Fainting and dizziness
- Frailty
- Mobility
- History of falling
- Use of medicine, adherence and polypharmacy
- Health history
- Adequate use of aids, devices and prostheses

7.3.7 Assessment of Housing and Living Conditions

Housing and living conditions are important. Older persons spend more time at home than younger people because they do not work, and they possibly are less mobile. It is easier to stay in their own house independently when there are no stairs and no slippery floors, when there is an easy accessible shower and a raised toilet with a grip on the wall and when there are stores in the neighbourhood. Some older persons neglect themselves caused by loneliness, depression or lack of help.

Performance Indicators for Assessment of Housing and Living Conditions

In the assessment of the living environment, the focus is as it relates to functional, physical, cognitive, psychological and social needs of older persons and includes:

- The ability to live independently, taking into account limited mobility, frailty and other physical or mental health problems
- Eating habits
- Smoking
- Consumption of alcohol
- Exposure to toxic substances
- Safety issues (e.g. fire hazards and risks for accidents)
- Fall prevention
- Actual or potential mistreatment (physical, mental or financial abuse and/or self-neglect)
- Possibilities of informal caregivers/family to deliver care and help

- Financial resources and who administers
- Transport facilities
- Availability of resources in the neighbourhood (shops etc.)
- Use of assistive technology

7.3.8 Assessment of Social Participation and Activities

Social issues can have a significant impact on life and both physical and mental health of older people. Think of loneliness from losing a spouse and friends. Social isolation can also be caused by adult children living far away. But there can also be feelings of boredom, sorrow by loss of independency or, for example, financial problems. Older people have older partners, and they are often each other's caregiver or carer. Is that realistic to continue? Friends, neighbours or volunteers can be a member of an older person's social network as well and help with activities of daily living or other tasks. Be aware that informal caregivers are not overloaded; they have a risk for a caregivers' burden.

Performance Indicators for Assessment of Social Participation and Activities

Gather information about social participation and functioning, including:

- Social history/background
- Recent life events
- Contacts with family, friends and neighbours
- Activities in community centres and neighbourhood
- Religion
- Hobbies
- Use of computer/Internet/social media
- Network of help and social support
- (Health) literacy and self-efficacy
- Caregivers/family/volunteers knowledge and skills necessary to deliver care and help
- Family/caregivers' needs and level of stress

7.4 Competence: Analysis and Problem Identification

When the data collection and the observation are completed, the phase of analysing starts. Try to make a picture of the older person and partner and their needs. The expert needs his/her knowledge and links this with the problems and needs of the older person. Sometimes there are more possibilities, and there is a need for more specified questions to come to a final judgment. Verify your conclusion with the older person and his partner. Then a multidisciplinary team discussion will be initiated to set up a plan.

Example
A 78-year-old female immigrant suffers from diabetes. Because of her severe obesity with a BMI of 30, she is sent to a dietician. During the assessment, the woman tells that her husband recently passed away. She has problems reading and understanding the language. The dieticians conclude that she has a risk for isolation and non-compliance caused by loneliness and misunderstanding next to her obesity.

In this example it becomes clear that the dietician performed an integrated assessment. She analyses the problem and based on her gained information and knowledge she comes to potential problems.

7.4.1 Competence Description

Formulate problems, potential problems and risks based on an accurate analyse of the data of assessment of the older person and his/her family and linked with your body of knowledge. Try to identify the relationships between physical, mental and social problems of the older person in his/her environment.

Problems, potential problems and risk factors are identified and clearly described and when applicable alternatives next to the relation between physical, mental and social problems. Priorities are set. The findings are verified with the older person.

Performance Indicators
- Apply professional knowledge to analyse, understand and interpret the information gathered.
- Identify and understand the relationships between physical, mental and social problems of the older person in his/her environment.
- Identify risk factors in mental wellbeing like recent behavioural changes.
- Identify risks in physical wellbeing and physical functioning like activity limitations, frailty, multi-morbidity and polypharmacy.
- Identify risks about housing and living conditions and the ability to take care of him-/herself.
- Identify risks in relation to social participation.
- Explore and discuss information to help work out what is most important for the older person and the family. Set priorities.
- Notify family/caregivers if an older adult exhibits risk signs and symptoms.
- Identify main problem(s) and formulate conclusion together with the older person and his/her family.

7.5 Competence: Goal Setting and Planning

The next step is setting up goals preferably together with the older person. There are goals for the long and for the long and short term. Shared decision-making is defined as the process by which professionals and older persons make choices together. What is important for the older person for his quality of life? What does he/she want to realize?

Example
A 75-year-old woman suffers from a chronic wound on her leg. The best option for the wound is to immobilize her. However, immobilization has a lot of physical disadvantages, and the woman likes to walk in her neighbourhood for her contacts. The professional (a wound care consultancy) and the patient decide together to restrict the immobilization and accept the risks that the wound healing takes longer.

For shared decision-making, it is important to have a trustful relation with the older person. The older person needs to be informed well about the available options, their advantages and disadvantages. The present of a relative of the older persons during the conversation may help the information process and gives the patients the possibilities to talk everything over and to make a proper decision.

7.5.1 Competence Description

Develop of a clear, timely and appropriate individual plan with measurable objectives for the care and support for the older person and his/her family with the focus on optimal health, wellbeing and quality of life. Use appropriate techniques for shared decision-making.

Example
A 75-year-old nursing home resident suffers from dementia and increasing wandering behaviour, day and night. He enters other patients' rooms and has a risk to get lost and for fall accidents. Together with his family, a plan is made to help him with his compulsion of wandering, with as indicator to decease it. Mostly this is caused by the last attempt to keep someone's autonomy. Indicator for the plan is increasing wandering behaviour. Together with his family, they discover that the man is capable in performing some simple tasks in a farm for day activities. This increases his feeling of autonomy. It makes him tired. His day and night rhythm recovers. His wandering decreases. From this information, the plan was made and evaluated regularly.

Performance Indicators

- Based on analysis of the assessment results, formulate goals and objectives for further care based on older person's preferences and needs.
- Use consultation techniques for shared decision-making, and work together with the older person and his/her family to set objectives, define outcomes and select treatment, interventions and help needed.
- Develop plans based on health situation, functional status, life goals, symptoms management and financial and social supports of the older person and his/her family.
- Explain the availability and effectiveness of resources for the older person and his/her family.
- Develop a clear, timely, realistic and appropriate individualized plan with measurable objectives for the treatment and support for the older person and his/her family. This plan should be person-centred and based on best evidence.

- Develop a plan that includes the interventions/actions from the profession's own discipline and, when necessary, referrals to a multidisciplinary team and other professionals.
- Write the plan according to the standards and regulations of the organization and the profession.
- Use consultation techniques for shared decision-making, and work together with the older person and his/her family to set objectives, define outcomes and select treatment, interventions and help.

7.6 Competence: Development and Performance of Interventions Based on Professional Standards

7.6.1 Competence Description

Provide care, help and support to the older person and his/her family to improve or prevent further decline in mental and physical wellbeing, housing and living conditions and social participation.

Like it becomes clear in the example of the wandering older person, based on the assessment and goal-setting, interventions are set up and developed. However, the complexity of the individually older person may be so unique that creativity must be found to solve the problem, preferably evidence based.

Example
An older lady with dementia in a nursing home made smack noises constantly and irritated her roommates. One carer was so creative to give her a lollipop. The lady stopped making smack noises and enjoined her lollipop, which she got from that moment on frequently. In the care plan that was made, extra dental control was included.

To set up interventions, you need to be aware of side effects as well.

But professionals are not challenged solely by individual problems; there are more general problems as well.

Example
In an ageing population, the number of patients at risk for illness and disability raises. However, there is growing evidence that physical activity helps to age healthy, physically and mentally. Based on this, there are local initiatives taken by physiotherapists for activity programme for older persons.

Although there is evidence, but there is still a challenge: How to stimulate older people to increase their physical activities. This can be a start of a new systematic approach of solving a health or social problem.

Performance Indicators

- Facilitate the older person's active participation in all aspects of his/her own health and wellbeing.

- Deliver care and support to the older person and his/her family with respect to cultural and spiritual beliefs, and make healthcare resources available.
- Carry out approved professional procedures, demonstrating knowledge and skills in the use of aids and equipment available.
- Prevent or reduce common risk factors that contribute to functional decline, impaired quality of life and excessive disability in the older person.
- Involve, educate and, when appropriate, supervise family, friends and assistive personnel in implementing best practices for the older person.
- Access and manage an emergency/critical event ensuring prompt, effective care and referral where appropriate.

The current technology possibilities may help you to find new interventions in the care and support for older people. You must take into the account that they may be unfamiliar with new techniques and that you must make adjustment to help them use it.

Example
A 75-year-old woman was recovering from a stroke. She wanted to go home and to live independently, to read the papers and to have a good conversation with her guests. She has severe difficulties with her balance, and she needs a wheelchair. To give her more autonomy, her daughter installed a tablet with speech recognition because she was not familiar with using apps. By commanding the tablet, she receives the paper daily; she is able to put on the radio and television, put on the lights and talk with her daughter and others through Skype.

Performance Indicators Using Techniques
- Apply ICT and ambient assisting living technologies effectively and safely.
- Develop and implement a tailor made rehabilitation programme.

7.7 Competence: Evaluation

The frequency of the evaluation depends on the state of the older person. This is a part of the plan. There is a difference of course of the moment of evaluation between the short- and the long-term goals. In some European countries like in the Dutch nursing homes, it is legally required to evaluate the long-term goals and the care plan at least twice a year in an interdisciplinary team and of course with the older person and partner or caretaker. Observations and unexpected changes in the physical, mental or social wellbeing can make it necessary to evaluate more often. In acute situations a continuous evaluation and adjustment of the goals and interventions will be necessary, based on assessment and observations. This completes the circle of the systematic approach.

7.7.1 Competence Description

Evaluate, reevaluate and make adjustment on service or care plans for the older person on a continuing basis with the purpose of providing optimal care and support for the wellbeing of the older person and his/her family.

Example

A 70-year-old man has a chronic wound. Two times a week, the home nurse visits him to dress the wound with as final aim wound healing. With the start of the prescribed treatment, the specialized wound nurse makes a video of the wound for the patient's record and to show the nurses who will perform the daily care how to dress the wound. After 3 weeks she visits the patient again and makes another video to compare it with the previous one. Because there seems to be no differences between the two videos, she warns the dermatologist for evaluation of the prescribed treatment.

Performance Indicators

- Monitor the situation of the older person and his/her family on a regular basis.
- Re-evaluate and adjust the plans and interventions for older adults on a continuing basis.
- Evaluate the continued appropriateness of the interventions, care plans and services based on the older person's and families'/caregivers' changes in age, status of health and wellbeing and function.
- Adjust and change plans and interventions when necessary or desirable.

7.8 Assignments

1. Find a standard assessment, used within your profession for an older person.
2. Discuss the possible cultural problems typical for older persons.
3. Make a critical appraisal of an intervention of your profession.
4. Discuss how to recognize illiteracy,
5. Which are the so-called geriatric giants?
6. Describe the differences between delirium, depression and dementia.

References

1. Dijkman B, Roodbol P, Aho J, Achtschin-Stieger S, Andruszkiewicz A, Coffey A, Felsmann M, Klein R, Mikkonen I, Oleksiw K, Schoofs G Soares C, Sourtzi P. European core competences framework for health and social care professionals working with older people. Ellan; 2016. 43p.
2. Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW. Studies of illness in the aged. The index of ADL. A standardized measure of biological and psychological function. JAMA. 1963;185:914–9.
3. Mahony FI, Barthel DW. Functional evaluation: the Barthel index. Md State Med J. 1965;14:61–5.
4. Folstein MF, Folstein SE, McHugh PR. "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res. 1975;12(3):189–98.

Communicator

8

Célia Cristina Casaca Soares and António Manuel Marques

Learning Objectives

You

- Are aware of the requirements for working with older people and their families in the role of communicator within the context of your profession
- Are able to build a positive relationship with the older people and their families and understand how this enforces health and well-being of the older person
- Understand and value the competences empowerment and coaching to promote health and well-being in older populations

8.1 Introduction

Approaching population ageing in a comprehensive way requires paying close attention to the diversity of needs that comes intertwined with older ages [1]. In fact, diversity is the hallmark of old age. The provision of personalized quality services meeting older people's needs is a common challenge across countries [2]. Recently, the WHO has proposed a framework on integrated people-centred health and social services focusing on people's preferences and needs [3]. This framework shows a clear articulation with the main principles of person-centred care [4] and moves away from a model of care based on standardized practices "one size fit all" or manual-like strategies.

C. C. C. Soares (✉) · A. M. Marques
Department of Social Sciences and Humanities, School of Health, Centre for Interdisciplinary Applied Research in Health, Polytechnic Institute of Setubal, Setubal, Portugal

Centro de Investigação e Intervenção Social (CIS-IUL), Instituto Universitário de Lisboa (ISCTE-IUL), Lisboa, Portugal
e-mail: celia.soares@ess.ips.pt; antonio.marques@ess.ips.pt

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_8

Person-centred, patient-centred, user-centred, individualized or personalized care reflect different terms used to describe what it seems to be the same outcome: putting people and their families at the centre of the process of care and working together in partnership with professionals to get the most appropriate solution to their specific situation [5]. In fact, consideration of older people's feedback on the process of care supports a more person-centred approach and brings information on the all possible ways to improve the quality of care provided [6].

The concept 'person-centred' is anchored in the tradition of humanistic psychology through the work of Carl Rogers in the field of psychotherapy. Rogers' humanistic approach and today's person-centred care share empathy as a key element, that is to say, the professional's willingness to suspend judgment and appreciate the user's perspective [7]. According to this framework, older people's care is driven by their desires, expectations, values, preferences, social background, life conditions and family situation and must meet their needs [8–10]. Therefore, professionals should be genuinely interested in knowing and connecting with the person, their family or other informal caregivers and recognize the centrality of relationships and communication processes [2, 9].

In the next sections, we will guide you through the fundamental components and requirements that define the competences of a communicator within the context of health and social care. Professionals working with older people in health or social care services may use these competences in several different ways, depending on the context and nature of their occupation and forms of practice.

Example

Daniel is a physiotherapist who has been working for 5 years in a non-governmental organization (NGO) that provides social and health care, especially for older people. The NGO has two target groups of users; one group resides in the nursing home and the other receives care at home. Home care is addressed to users in the rehabilitation phase, especially in post-stroke situations, and also after orthopaedic surgical interventions.

In these situations, when the older person wishes to remain at home or with the family, a team of professionals evaluates the existing logistic conditions, to ensure that the rehabilitation process will continue and that it will proceed safely. This evaluation is discussed with the older person and, when applicable, with their caregivers and is performed in loco by the social worker and by the physiotherapist and/or nurse.

When the older person returns home, still with some functional limitations, the organization of the space (such as the arrangement of the furniture and the access and suitability of the WC, among many details) must be carefully analysed and adapted.

After an ischemic stroke and 1 week at the hospital, Joana, a 78-year-old widow, has been admitted to the nursing home where Daniel works, to continue her recovery process (she had pronounced hemiparesis, decreased movement of the left lower and upper limbs). Her son and daughter did not have the possibility to provide care or to transport her to physiotherapy treatments.

After a few weeks at the nursing home, she did not hide the desire to return to her house; several times a day, she asked the professionals when that day would come. Because they did not know what her son and daughter would decide, the professionals avoided answering, changed the subject or simply said, 'I don't know'.

During one session of physiotherapy, Daniel noticed Joana's apathy and her lack of involvement and collaboration. Only with some insistence, Joana said that it would not be worth investing in her rehabilitation, since she had realized that she would stay in the nursing home forever. The physiotherapist showed his interest in understanding what she was saying, and this was how he became aware of Joana's frustration for being institutionalized. Daniel explained to her, in common terms, the relationship between the stroke she had suffered and the limitations of movement and strength of the affected limbs and stressed how their work together had brought many improvements. Joana recognized that she was much better and more agile and that for that reason she already moved autonomously in the nursing home, only with the support of the walker. If she could do it at the institution, she could do it at home, she said. Daniel thought that, under the right conditions, Joana could be at home or together with one of her children, but he did not express his opinion.

The physiotherapist emphasized that the space in the institution has been planned and organized so that users like her could move safely and that regular houses do not always have such conditions. Joana used this opportunity to describe her house and all the personal objects she missed during her stay at the nursing home, including the plants she was so proud of. Daniel did not know what Joana's family had thought about her future, so he asked if she agreed with the possibility of having the team discussing this situation together with herself and her family.

Information about the advantages of returning home and the need to evaluate the adaptations to be made was provided during the meeting with Joana and her family. Her son argued that his mother should not return to her own house because she was very weak and it would be better for everyone if she stayed at the nursing home. Daniel noticed Joana's expression of disagreement and encouraged her to say what she thought. She argued that she would feel better at her own house, even if provisionally, it were worth to try.

The physiotherapist described Joana's functional stage and the intervention he would perform as a physiotherapist three times a week. He assured that the team supported the decision of having her returning home, since there was consensus about the benefits of this measure, considering the implementation of some security measures. However, he said, a collective commitment to that decision was needed. Joana's daughter showed will to make the necessary arrangements and changes at her mother's house and stated that she would hire a care assistant, since everyone was busy during the day.

Daniel visited Joana for the fourth time, after she had settled at home. He found her in the kitchen, sat in a chair near a big glass door, which was separating her from a large terrace. In private, the care assistant told him that it was her usual behaviour in the past few days. She also mentioned that Joana refused to perform the recommended exercises for the upper limb (such as throwing a tennis ball and picking it up again, separating marbles by colour and size on a board or putting

rings on a pin) because, in her own words, 'these were silly, childish and useless things'. As for the gait training, because she had less space at home to use the walker at her ease, Joana told the care assistant she felt less safe than in the nursing home and therefore avoided walking.

Joana, upon the physiotherapist entry, immediately said that 'after all, her return home was not working and she regretted leaving the nursing home; in fact, she felt like a prisoner'. Daniel talked with her because he was interested to know her reasons and realized that, by her son's imposition, Joana's movements were closely watched and controlled by the care assistant and the access door to the terrace was locked. He sat down next to Joana and prepared himself to learn the name of 20 plants or even more, which were on the terrace. She claimed that the plants were in need of water and care. Daniel sat outside with Joana in the large terrace, and he listened. He was not concerned about not having performed the planned intervention and prepared himself to reflect on what had failed in his action and on what he could still do to improve Joana's current situation and well-being.

8.2 The Role of Communicator

Health and social care professionals enable older person-centred communication in formal and informal situations. This is achieved through shared decision-making and effective interactions with the older person, their family and informal supporters. Health and social care professionals work within the context of the older person's individual situation and living conditions and take into account the level of support required and factors such as the individual's level of literacy and sensory abilities. The competences required for this role are essential for establishing rapport and trust, formulating a diagnosis and planning interventions, delivering information, achieving mutual understanding and constructing a shared plan of support. The application of these communication competences and the nature of the different health and social care professions vary for different occupations and forms of practice and may be formal and informal.

Competences of the communicator role are maintaining relationships and effective communication, empowerment and coaching.

In the last decades, with a growing body of empirical evidence, the power of communication has gained special recognition in the field of care. The traditional biomedical model, according to which no great communicative ability of professionals was demanded since the client-as-person was scarcely recognized, has been replaced by a biopsychosocial alternative, where positive and effective interpersonal communication is mandatory [11].

Results of several studies conducted in the context of medicine and nursing, focusing on the effects of professional-patient relationships, have shown that interpersonal skills of professionals make a significant difference in the quality of care and patient's quality of life, well-being and satisfaction [12]. Communication and interpersonal skills of care providers may lessen feelings of treatment burden and

empower patients to feel confident in their self-management [13]. Instead, ineffective skills are associated with decreased patient satisfaction and increased medication errors and malpractice claims. And similar findings recur across professions [12].

Older people seem to be truly aware of the decisive role of communication in experiences with different professionals and care settings. In fact, they believe that positive communication styles have a significant impact on the way people perceive the quality of care [14]. Furthermore, clear communication strategies show positive impact on health conditions and health outcomes of older people such as the reduction of emergency department readmission rates, mortality and functional decline [15].

As communicators, professionals should promote positive relationships and effective communication strategies with older people and their families or informal carers, ought to involve and share decisions about care with older people and their families, and help people to manage their health [16]. To pursue such goals, professionals must know the person's history, biography, strengths and limitations and use such knowledge for implementing personalized care [10, 17]. Thus, a relationship-centred approach requires attention to each person in all of his or her complexity [18].

There are three main competences included in the role of communicator. The first one focuses on maintaining relationships and effective communication, and the second one is related with the empowerment of the older person, family members or other informal careers. The third competence is associated with coaching strategies oriented towards the promotion of older people's health and well-being following mechanism of self-management, self-reliance and co-reliance.

8.3 Competence: Maintaining Relationships and Effective Communication

This first competence is anchored on the promotion of positive and trusting relationships and effective communication strategies with older people, their family members or caregivers, in formal or informal situations. In fact, the development of positive and reciprocal relationships reflects one basic principle of person-centred care and needs to be considered as a pillar of older people's care [19]. Person-centred care derives from caring relationships that are established between professionals and older people. Thus, educating care providers about the importance of interpersonal and relational skills can lead to improvements in the process of care and, consequently, benefit the well-being of older people.

8.3.1 Competence Description

Form strong positive relationships with older people and their families, based on empathy, trust, respect and reciprocity. Communicate in a clear and effective way considering older person's individuality, dignity, personal and social background and needs [20].

Performance Indicators

- Understand the older person's individuality, identity, background, developmental path, expectations and needs.
- Respect individual and cultural diversity in care and services, including diversity of attitudes and beliefs about ageing and well-being. Be aware of and avoid cultural biases during care.
- Promote positive, trusting and symmetrical relationships.
- Adjust the form of communication depending on the characteristics of the older person.
- Assess possible barriers to the older person receiving, understanding and giving information.
- Use active listening during different situations of care and support.
- Listen to older person's concerns and allow extra time when needed.
- Be aware of the nature of relationships of the older person with his/her family/caregivers and of the possible (positive/negative) effects in care and support.
- Be able to relate and communicate with the older person and his/her family/caregivers individually and in small groups.
- Use diplomacy and tact in fraught situations and handle tense situations. Address conflict situations positively, show respect, listen to the involved parties and achieve common ground whenever is possible [20].

If health and social care professionals wish to address and treat the problems of older people effectively, it is essential that they start by recognising and responding adequately to each person's background and needs [21]. Older people want to feel that care providers understand what is important to them and know about and accept their individual needs. Going back to the example presented in the beginning of this chapter, it's important that you understand that professionals should have been more available to recognize and give sense to Joana's expectations and needs when she constantly expressed her desire to return to her house after a few weeks in the nursing home. After all, Joana's questions where reasonable and legitimate considering her identity and life situation before the stroke. To preserve a sense of life continuity and to reduce her anxiety, professionals should have addressed Joana's questions in a more open and supportive way [2].

Literature suggests that older people value relational aspects of care more often when compared to technical or task-oriented aspects [2, 22, 23]. For example, in the context of nursing, even if participants value technical knowledge and skills shown during care, these seem to be interconnected with the nurse's attitudes in a way that the former couldn't be well accomplished without the latter [22]. Caring attitudes of professionals, such as kindness, warmth and support, positively influence the quality of relationships during older people's care [24] and contribute to higher levels of satisfaction [25].

8.3.2 Relationship Building and Communication in Care

Communication is central to all forms of relationships occurring in different settings, including health and social care. When such relationships become stressful or

break down, the central complaint frequently relates to ineffective or poor communication [26]. We develop relationships through degrees of self-disclosure and gradually reveal information, attitudes and feelings through means of communication. Empathy and trust are important for building positive relationships. Empathy involves trying to feel with the other person in order to understand their point of view. Trust involves accepting the others without judging them and believing in their sincerity, competence and acceptance. In health and social care settings, trust is particularly relevant because people often feel helpless and vulnerable [26].

Trust is reinforced when health and social care professionals use positive and supportive communicative behaviours. Older people often report such behaviours as being the most important in a consultation and how they value the healing power of such behaviours (e.g. when the doctor shows interest in their problems, kindness and overt friendliness during conversation) [27].

In acute care settings, for example, older people and their relatives report that reciprocal and trustful relationship with professionals provide reassurance and a feeling of being cared for, respected and welcome [17]. Therefore, it is important to foster trust by attending to the person's needs and by using appropriate communicative behaviours. The quality of communication is associated with the sense that one is being helped.

Likewise, trustful and reciprocal relationships provide a sense of security and enhance an individual's sense of significance, belonging and continuity [28]. Within this particular relational context, client and professional come together in cooperation to discover the nature of the problem, to determine a course of action or a suitable strategy for intervention. There may exist some disparities in terms of their expectations, but to some extent there will be consensus between them in relation to the nature of their encounters [26]. Thus, communication is basic to shape the health and social care encounter.

Communication allows attaining knowledge about the symptoms and their personal relevance to the client, so that the diagnostic process can be appropriately targeted and so that the practitioner can find out what is at stake for the client as a person [29]. Following Widder's view, communicative events between practitioner and client lead to a shared understanding about what is at stake for the client [29].

Going back to the example, you can see that Daniel was truly interested in understanding the real reasons behind Joana's behaviour and refuses to perform the recommended exercises during the episode of his fourth visit to the house. Being available and truly interested in Joana's situation made him realize that her autonomy and independence was being compromised. In fact, her family was not respecting her needs and desires. In that moment, through means of empathy and trust, Daniel understood Joana's position and also the negative impact this situation was having on the process and outcomes of care.

8.3.3 Effective Communication in Care Settings: Key Elements to Keep in Mind

As mentioned earlier in this chapter, effective communication is now recognized to be central to effective health and social care for older people. Simpson and

colleagues [30] presented eight key points about the relationship between communication practices and health outcomes in the 'Toronto Consensus Statement', namely:

1. Communication problems in medical practice are important and common.
2. Patient anxiety and dissatisfaction are related to uncertainty and lack of information, explanation and feedback.
3. Doctors often misperceive the amount and type of information that patients want to receive.
4. Improved quality of clinical communication is related to positive health outcomes.
5. Explaining and understanding patient concerns, even when they cannot be resolved, result in a fall in anxiety.
6. Greater participation by the patient in the encounter improves satisfaction, compliance and treatment outcomes.
7. The level of psychological distress in patients with serious illness is less when they perceive themselves to have received adequate information.
8. Beneficial clinical communication is routinely possible in clinical practice and can be achieved during normal clinical encounters, without unduly prolonging them, provided that the clinician has learned the relevant techniques.

From these key points, you can see that effective communication needs to be person-centred and informative and needs to promote trust and confidence, as noted earlier. It's essential to convey the right information, to the right people, in the right way, at the right time [26].

To communicate in a positive and effective way, professionals need to develop and use a number of skills. In health and social care situations, the most common communication skills are related to questioning, explaining and providing information, attending and listening and reinforcing, including both verbal and non-verbal aspects [26].

The ability to ask questions is a core skill for most health professionals because they need to be able to determine basic information from clients before they can begin to make diagnosis, give advice or make any intervention [26].

The way professionals provide or explain information is determinant for several different aspects of care (e.g. health outcomes, client's satisfaction, adherence to treatments). Thus, explaining and providing information is essential to help the client understand the problem and how it might be treated, to reduce anxiety, to give practical instructions related to medication or other specific interventions, to correct mistaken beliefs and to promote healthcare self-management [26].

Listening and attending constitute fundamental skills for health and social care professionals. Attending is related with focusing on the other person and what they are trying to communicate. Listening is associated to process of 'hearing' the other person; that involves what they are saying, together with the associated non-verbal behaviour and paralinguistics [26]. Professionals should listen to the client but also show that they are listening carefully to what is being said (active listening). In fact, active listening can be one of the most difficult skills to develop [31]. Active

listening is critical to gain a full understanding of the client's problem and associated feelings, to communicate interest, to encourage openness and to develop a more patient-centred style of interaction [11].

Reinforcement is central to interpersonal relations and serves different purposes in social interaction. The key behavioural components of reinforcement include acknowledgment, confirmation, paying compliments and making supportive and evaluative comments. Health and social care professionals can use such behaviours to reinforce positive behaviours and health outcomes in clients [26].

8.3.4 Communicating with Older People: Some Specific Patterns

Communicating effectively with older people can be challenging. Older people can show specific communication needs, and professionals may have to develop special competences to communicate with older people. In terms of their expectations and needs, several studies show that older people expect professionals to have good communicative and listening skills. For instance, professionals are expected to listen, exhibit signs of understanding about what is being told by older people, give feedback and allow enough time for consultation [2, 19, 24, 32].

Literature also suggests that the exchange of reliable information depends on the type of language adopted by professionals; technical or scientific language exacerbates communication problems, and professionals must be aware of this situation when they advise or give explanations about medication, specific procedures or treatments [2, 21, 33].

If you recall the example at the beginning of the chapter, during his interaction with Joana, Daniel has adjusted the type of language (common terms) to explain her current clinical condition, the limitations that came associated with the stroke and the positive effect that their partnership was having on her rehabilitation. Like Daniel, professionals should be able to adjust their communication to the level of understanding of older people and to avoid the use of technical jargon during care.

Older people also expect the communication of bad news in an adjusted and supportive manner [2, 19]. In some situations, professionals should be sensible to the amount of information that older people are prepared to receive. Moreover, communication skills of professional are also related to non-verbal communication such as visual contact, touching and showing signs of attention during interactions with older people [2, 16, 21].

In the example, Daniel's communication skills became evident when Joana expressed her frustration in a passive way, and he was able to understand her message by using both verbal and non-verbal cues; she said that it would not be worth to invest in her rehabilitation because she was going to stay in the nursing home forever. In this situation, he used his active listening skills; he followed the hints of non-verbal communication and paralinguistics and was able to decode the real meaning concealed in her message. Daniel was able to understand Joana's present behaviour and recognize her concerns, expectations and needs.

Still, there are also special communication patterns related to specific physical, cognitive and psychosocial factors, which can pose potential barriers to positive

communication with people from this age group. As future professional working with older people, you should be aware of these.

Barriers in Communication with Older People

Physical factors acting as potential barriers to effective communication with older people can be associated with poor eyesight, hearing loss and physical mobility [26]. Many professionals use shouting as a strategy when speaking with an older person with hearing loss. Instead, it is more adequate speaking slowly, with a low but resonant voice, as most hearing loss is likely to affect perception of high-pitched sounds. Also, the older person should be seated close to the professional, and face-to-face in a good light, so that he or she can read their lips and hear their voice [26].

Written information can be used as a complementary strategy that can even be taken home, for people with hearing loss as well as for those with minor cognitive impairments that affect their speed of information processing. Nonetheless, this strategy is only supplementary and cannot replace spoken interaction between professional and older person in any case [26].

Besides age-related sensory decline, the probability of cognitive impairments also increases with age. Communication with older people who have some degree of cognitive impairment requires allowing time for processing and understanding the information or questions and to respond in a proper way. To respond properly, care providers should use familiar terms and simple sentence structures whenever possible; when giving instructions (e.g. using devices, medication, other relevant information) tasks need to be decomposed into smaller concrete steps that can be more easily understood and followed [26].

In terms of psychosocial or behavioural factors that can hinder the quality of communication with older people, ageism is a special case. Ageism refers to negative stereotypes, prejudice and discriminatory behaviours based on age categorization; that is to say, it can be directed to any age group. In this chapter we will focus on ageism directed towards older people, expressed by professionals in care settings. (See also Chap. 13.)

Negative attitudes and discriminating behaviours of professionals based on age categorization represent a form of social and cultural bias that negatively affects the quality of relationships and the effectiveness of communicational processes in care settings and consequently the quality of care [2, 34]. In fact, the use of age categorization can be highly problematic both socially and psychologically because older people may restrict their own activities and roles based on ageist assumptions [35, 36]. Besides, the exposure to negative age-based stereotypes may have a negative impact in older people's physical health [37], age identification, self-esteem and identity [35].

Thus, professionals need to be well aware of their own ageist perceptions and attitudes, which can derive from negative representations that are associated with the older person or the ageing process itself. Ageist attitudes endanger the way older people are treated [36] and compromise the quality of care.

According to Levy and Banaji, ageism is not only exhibited explicitly but is also often manifested through implicit modes relating to thoughts, feelings or behaviours that operate beyond an individual's awareness or control [38]. Implicit ageism

stems from automatic associations [39] between the concept of 'ageing' and 'old' and negative stereotypes such as 'dependent, depressed, etc.' [40]. Verbal and non-verbal aspects of communication can be quite revealing about such associations because words and gestures, for example, are often strong carriers of ageist stereotypes and discrimination [34].

For example, in the context of medicine and nursing, professionals tend to speak louder and with a patronizing speech, often treating older people like children rather than as fully functioning adults [41, 42]. When older people are accompanied to consultations by a third party (spouse or children), professionals often communicate directly with the third party (particularly, if they are younger) rather than with the older people themselves [26]. Also, the use of condescending and infantilizing language and the exclusion of older adults from decision-making related to their medical treatment have been reported in the literature [34].

8.4 Competence: Empowerment

One of the three main prerequisites for health promotion and improvement in health proposed by the Ottawa Charter in 1986 is to enable equity in health at the individual and collective levels [43]. The principle of equity applied to the field of health focuses on reducing differences in health status and guaranteeing equal opportunities and resources to enable all people to achieve their fullest health potential. To attain such potential, people must have the opportunity to be responsible for and gain control over their own health. Health promotion is an essential tool to increase such control and to allow informed choices that enhance people's health [43].

Empowerment is about supporting people and communities to take control of their own health needs, for example, supporting the ability of people to self-manage their own illnesses or necessary changes in their living environments. Such support can allow people to become articulate and empowered co-producers of health services [3].

8.4.1 Competence Description

Promote capacities and resources in older people and their families so that they can gain control over their lives and achieve their own goals according to their needs and expectations. Contribute to the improvement of the older person's autonomy, independence, well-being and quality of life [20].

Performance Indicators

- Adapt educational approaches to enhance older person's coping capacities and well-being.
- Respect personal choices of the older person in the activities he/she wants to perform despite the time needed.
- Promote shared decision-making with the older person and/or families/caregivers for maintaining autonomous everyday living, health and well-being.

- Encourage the older person to voice his/her wishes, expectations and concerns.
- Ask the older person if and how they want his/her family to be involved in care and support [20].

Since older people are not passive in their interaction with their environments, they should be able to maintain the ability and right to choose across their life course. This ability is closely linked to notions of agency and autonomy [44], which have been shown to have a powerful influence on the person's dignity, integrity, freedom and independence [1, 45] in different living environments (community, assisted living facility or institution) [46].

Going back to the example, you can see that Daniel has been attentive to Joana's wishes, expectations and concerns in different situations. He also tried to engage her in the choices related to her future, considering her autonomy in everyday living. His commitment to promote shared decision-making was clear when he asked her opinion about having the team discussing her return home, together with the family. This was also an opportunity to evaluate Joana's willingness regarding the involvement of her family members in her particular situation.

With decline in capacity, older people are often confronted with the need to make transitions in their living environments [1]. However, the existing home or community is often considered as having the advantages of maintaining a sense of connection, security and familiarity and as being related to their sense of identity and autonomy [47]. Thus, the older person and their supportive network should be able and powerful enough to decide on their own, or share decisions with professionals, and make personal choices that are in their best interest.

Choosing and deciding about one's own life can entail handling with difficult and complex situations. Within the context of health and social care, professionals, family or informal caregivers need to ensure that the required information is comprehensible and relevant for enabling the older person to take the right decisions [1]. However, when the person does not have the capacity to choose independently, supported decision-making may be required. In such conditions, the process of decision-making needs to be deeply informed by the character of older person and their past and present values and preferences [48].

In the example, the physiotherapist noticed Joana's expression of disagreement when her son argued that his mother should not return to her own house. In his opinion, for the sake of everybody's well-being, the best solution would be to keep the mother at the nursing home. At this point, the son was not considering the expectations and preferences of Joana. However, to prevent a situation of passivity and dependence, Daniel encouraged her to voice her wishes, expectations and concerns. It is essential that family members or caregivers do not retain support or resources to control older people rather than enabling them to make decisions [49].

In the context of primary health care, older people are increasingly encouraged to take an active role in knowing and managing their health, in expressing their concerns and preferences and in participating in medical decisions [50]. Patient empowerment, patient-involvement and shared decision-making are frequently used

concepts in such context [51, 52]. Patient involvement has positive effects on health outcomes, especially for people with chronic conditions (frequent in older people) [53]. However, previous research showed variability in older people's preferences for being involved and for participating in medical decision-making [50, 51, 54].

8.4.2 Degrees of Freedom in Older People's Involvement in Care: The Case of Medication-Related Decision-Making

Medication decision-making is complex, particularly for older people with multiple coexisting conditions [54]. As mentioned before, the extent of desired participation in decision-making varies among older people with different clinical conditions. Research also shows that the person's desire to participate depends on the nature of the task [55].

Belcher and colleagues conducted a study on the perceptions of older people regarding patient involvement in medication decision-making [54]. Results show variability in perceptions on whether it was possible or desirable for patients to participate in decisions. While some participants expressed attitudes and beliefs that were more congruent with a paternalistic model of care, deferring decisions completely to the physician, others supported a more active role of the patient.

For the group of patients who didn't want to be engaged in medical decisions, the main reasons presented were as follows: wanting the doctor to tell them what to do, fear and anxiety regarding illness and illness is overwhelming. Another group considered that patients cannot be part of decision-making, and the most cited arguments presented by these people were feeling powerless and feeling that they could not make a difference in decisions. Lack of knowledge about medications and the perception that the doctor "knows best" or is "god-like" were also reasons mentioned by this group [54].

The third group, who defended an active involvement in decision-making, focused their arguments on patient's responsibility to know about their medications and conditions. Participants also reflected on the impact of doctor's attitudes and behaviours as facilitators or obstacles to patient's involvement in decision-making [54].

Findings of this research are consistent with other studies addressing medication-related and other healthcare decision-making, which suggest that older people's involvement should be approached according to a notion of continuum, ranging from completely passive role to taking an active involvement in decisions. Being interested in receiving information on health and treatment options lies in between this continuum. Patients might wish to receive such information but might not want to be actively engaged in decision-making [50, 54].

According to such findings, you should retain that the degree to which older people can or wish to be involved in decision-making must be interpreted in straight line with their goals, preferences and needs. Professionals should be sensitive to older people's motivations or limitations towards decision-making and need to reach a shared understanding with the older person on how much involved they would like to be. (See also Chap. 11.)

8.5 Competence: Coaching

Age increases the risk of many health disorders, which can negatively impact on the health condition and quality of life of older people. Nevertheless, the presence of disease during old age is not equivalent to a condition of being no longer healthy [1]. In fact, many older people are able to maintain their functioning and continue to experience high levels of well-being despite the presence of one or more diseases [56]. With this group, coaching strategies will be mainly directed towards the prevention of diseases and risk reduction, promotion of capacity-enhancing behaviours and early detection or management of chronic diseases [1].

8.5.1 Competence Description

Stimulate, motivate and coach the older person and related others regarding self-management, self-reliance and co-reliance [20].

Performance Indicators

- Inform the older person and his/her family about their particular situation and condition, and explain interventions, procedures, benefits and/or risks in a clear and detailed way.
- Stimulate social participation of the older person according to his/her personality and needs.
- Be aware of feelings of uncertainty and reassure the older person if necessary.
- Discuss possibilities and stimulate self-management, self-reliance and co-reliance.
- Use group interventions with the older person and his/her family and/or caregivers.
- Mediate conflict or hostile situations with the older person and family/caregivers [20].

8.5.2 Coaching Concept and Approach

Coaching applied to the health context has been conceptualized in different ways [57, 58]. In the 1960s, with F. Mahoney and D. Barthel [59], coaching would be understood as a practice of health promotion and health education, as a suitable strategy to facilitate the achievement of health-related goals. Subsequently, the concept of coaching explains the ideological and effective connection to patient-centred practice: (…) 'a patient-centered approach where in patients at least partially determine their goals, use self-discovery or active learning processes together with content education to work toward their goals, and self-monitor behaviors to increase accountability' (p. 93) [60].

This conceptualization is in line with the principles that should guide professional relationships with older people, especially those that are explicit in the competence of coaching. In fact, older people with higher levels of decline in their capacity and functional ability are less likely to have had the opportunity to develop skills and

knowledge that allow them to make the choices that are in their best interest. The competence of coaching calls for the professional to be supportive, but not to underestimate the will and skills of older people. In the words of Kibble and colleagues, this approach (…) 'challenge the fundamental basis of "I do it for you" to "I will do it with you", allowing the patient to become an integral partner in their health care' (p. 1) [59].

A coaching approach seeks to balance orientation between the needs that professionals identify and in which to focus (e.g. information, reinforcement of self-efficacy, social participation) and the aspirations and opinions of older people, intrinsically marked by their idiosyncrasies, contingencies and subjectivity.

As van Dijk and colleagues suggest, recognition of older people's needs and the encouragement of self-management contribute to their quality of life and better health, which (...) 'enables the older people to "star" in the "production" of their own well-being as a form of empowerment' (p. 1) [61].

If you recall the example presented at the beginning of the chapter, Daniel was active in stimulating and coaching Joana and her family regarding self-management, self-reliance and co-reliance. He was able to explain her situation in a clear and detailed way, in particular the relationship between the stroke and her actual limitations and on how their partnership had brought many improvements to her clinical condition and, consequently, to her autonomy. Together with her family, he also provided detailed information about the advantages of returning home, the need to evaluate the adaptations to be made and the intervention he would perform as a physiotherapist three times a week.

The effectiveness of coaching interventions has been evidenced in several studies and by several authors. Reinforcement of patient commitment, self-reliance and self-management improves the patient's experience in adopting health-promoting behaviours and processes of adaptation to illness and/or disability, increases outcomes and can reduce material and intangibles associated with increase outcomes and can reduce the material and intangible costs associated with care delivery [58, 62].

Hence, fostering the ability to choose and to self-manage in this group may be a useful strategy for overcoming some of the inequities experienced in older age [1]. Moreover, coaching interventions are essential for this target group because the process of becoming frail or care dependent can be delayed, slowed or even partly reversed [63, 64].

8.5.3 Coaching Strategies, Advantages and Challenges

Supporting self-management is a way to recognize the person's autonomy and abilities to direct their own care in partnership with professionals, their own families and other informal carers. Likewise, it's an opportunity to encourage older people and their caregivers to take part in shared decision-making and to share responsibility for the older person's health and well-being [3].

Interventions aimed at increasing self-management have been used in a number of health problems, in the perspective of their management, namely, in the chronic condition, but also in their prevention [57], considering, as we have pointed out, the interests, needs and particular situations of older people.

Coaching strategies have been adopted, for example, in the field of cardiovascular diseases [65, 66], in monitoring and encouraging physical activity and control of

various chronic diseases, such as type 2 diabetes, hypertension and chronic obstructive pulmonary disease (COPD) [67–71]. These strategies are also an adequate approach to prevent cognitive decline associated with ageing [65] and encourage independence and commitment to rehabilitation [59].

With the right guidance and support, people can address damaging health behaviours and barriers in their environment that prevent healthy lifestyles [3, 57]. Coaching approaches will enable older people to follow through with behavioural changes needed to maintain or improve health and well-being, but it will always be necessary to choose the strategies that best fit in the characteristics of older people, the defined objectives (in cooperation with the patient and/or with family) and contextual resources. However, to inform, encourage and motivate the older person and her/his family regarding the best possible self-management, self-reliance and co-reliance on care and services, their diversity must be addressed, especially in the choice of coaching strategies.

By the combined effect of sociodemographic factors such as economic resources, place of residence (e.g. urban or rural), race, educational level and economic income, the level of competence for self-management may differ among older people [72, 73]. On the other hand, older people may have lower levels of literacy, especially those of less-favoured social classes, which will have negative effects on their self-management skills [73, 74]. Even if they are able to deal with specific self-management tasks (e.g. medication adherence), older people with these characteristics will have more difficulty to perform tasks with some complexity or with several components, such as the systematic management of the disease or general self-management [75].

Therefore, practitioners should evaluate the levels of general literacy and health literacy of older people, so that their interventions are appropriate and thus increase their effectiveness, with potential benefits for older people [75]. This also applies to the family. Whenever family members are directly involved in care and/or support of older people, they also need specific support from professionals [76–78]. The involvement of the family is important to create conditions that allow the older person to become the protagonist and a real partner in their health and social care and life decisions. Hence, the role of the family has to be recognized, and their performance must be facilitated, through personalized interventions and coaching strategies to adopt particular situation.

Going back to the case, Daniel's genuine interest in Joana's quality of life and well-being and his availability for maintaining positive relationship and effective communication were determinant for having her trust. At that moment, in the terrace, Daniel realized that together they had the adequate conditions to undertake the necessary adaptations to the intervention. He was convinced that this was the right way to motivate Joana and stimulate her active involvement in rehabilitation. He also needed to reflect on a strategy to improve her son's collaboration. This could be a good solution to improve the quality of care in Joana's situation, and he was going to try it.

The ability to inform and encourage self-management and autonomy is essential to conduct effective health education and coaching activities with older people.

In different contexts of intervention, older people and their families value time spent by professionals to give suitable information about issues related to their care and wish to receive clear explanations with patience [36, 59]. As illustrated, Daniel was attentive to the signs of apathy and resistance exhibited by Joana both at the nursing home and her own house. For this reason, he became aware of the uncertainty she felt about her everyday life and future and had the opportunity to reassure her.

Face-to-face conversation will probably be the immediate and most common form of coaching, but professionals can provide information, skills and tools for managing health conditions, preventing complications and maintaining quality of life, in a variety of ways. This will depend, as we mentioned earlier, on older people objectives, needs and competencies, resources and preferences.

There are other ways or tools that can supplement or partially replace this type of strategy, both in relation to older people and their family. A number of experiences, either alone or in the form of more ambitious programmes, have been carried out or disseminated, in which coaching has been applied to health contexts, particularly in older people [65].

Contacts by telephone and email, in a programmed and pre-agreed way, between the professional and the older person, may be a simple strategy but with effective results. A phone call or email can express the interest of professionals in the older person and their situation. In such contacts, the practitioner can make verbal incentives to encourage the older person to maintain or change behaviour, identify their difficulties in adopting a desirable practice and give and receive suggestions or information relevant to both intervenient. Thus, telephone and email contacts can be meaningful tools to promote the health of older people and encourage decision-making about their daily life [65, 67, 79].

Visualization of short videos about common chronic diseases in old age, followed by individual and group exploration and reflection, may be part of a coaching strategy [68]. This tool can be effective in the dissemination, systematization and consolidation of knowledge, in the demonstration of a technique and also in the stimulation of desired changes by changing attitudes and skills development [80].

For instance, eHealth is a tool that can be employed for improving the quality of life of older people. It has been used to prevent loneliness and isolation, support independence and facilitate the self-management of older people's conditions [3, 81]. Even if the acceptance of web resources and the possibilities of access are not the same to all older people and to all social categories, their potentialities have been evidenced [65, 80, 82, 83].

Full compliance with coaching competences may require specific professional skills. As we have tried to emphasize, there is a dimension in the role of communicator that calls for a close relationship with older people and their family, promotes partnership and encourages active participation in the management of their needs and daily lives, at the level of rehabilitation, self-management or discharge planning [59]. To assure quality care services and promote the satisfaction of older people and their families, professionals can attend specific pre- and postgraduate training focusing on the competences described in the role of communicator. This can

contribute to further develop their knowledge and skills and motivate them to reflect on their practices and, where necessary, to improve them [59, 84, 85].

8.6 Assignments

1. When professionals use technical jargon during care, they create possible barriers in communication with older people. Are you aware of your own behaviour? Is it possible that you may have had this behaviour in your encounters with older people during internships? It may be useful to reflect on this and, as a suggestion, to list common terms of your profession, which may be unknown to those you care for (e.g. clinical condition, administrative procedure, relapse, scientific evidence, etc.).
2. In the example described, for Joana, the possibility to care and appreciate her plants was an essential source of motivation and well-being. Based on your experience, do you identify habitual aspirations of older people, which can mark their individuality and influence the therapeutic process?
3. As we have said, promoting shared decision-making with the older person and/or families/caregivers is a desirable strategy for maintaining autonomous everyday living, health and well-being. However, this can be a challenging task for professionals. Think about the difficulties in respecting the rights and needs of the older person and at the same time considering the opinions and desires of his/her family. Can you identify verbal expressions that help build consensus and avoid mistrust and hostility?
4. Non-verbal language is rich but also complex. The ability to decode and use it properly is critical in health and social care. Because it is closely linked to culture, it can be one of the areas where cultural diversity is most evident. In your own profession, you may have experienced illustrative situations. It will be a good exercise to recall and analyse the positive and/or negative affects you have noted.

References

1. World Health Organization (WHO). World report on ageing and health; 2015. http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811_eng.pdf?ua=1. Accessed 31 Oct 2017.
2. Soares CC, Marques AM, Clarke P, Klein R, Koskinen L, Krasuckiene D, Lamsodiene E, Piscalkiene V, Küçükgüçlü Ö. Older people's views and expectations about the competences of health and social care professionals: a European qualitative study. Eur J Ageing. 2018. https://doi.org/10.1007/s10433-018-0466-3.
3. World Health Organization. WHO global strategy on people-centred and integrated health services. Interim report. 2015. http://apps.who.int/iris/bitstream/10665/155002/1/WHO_HIS_SDS_2015.6_eng.pdf?ua=1&ua=1. Accessed 31 Oct 2017.
4. Silva D. Helping measure person-centred care. London: The Health Foundation; 2014.
5. www.ihi.org/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral/.

6. Phillips KL, Chiriboga DA, Jang Y. Satisfaction with care. The role of patient-provider racial/ethnic concordance and interpersonal sensitivity. J Aging Health. 2012;24(7):1079–90.
7. The Health Foundation. Person-centred care made simple. London: The Health Foundation; 2014.
8. Gill PS. Patient engagement: an investigation at a primary care clinic. Int J Gen Med. 2013;6:85–98.
9. Nay R, Garrat S, Fetherstonhaugh D. Older people: issues and innovations in care. London: Elsevier Health Sciences; 2013.
10. Epstein RM, Fiscella K, Lesser CS, Stange KC. Why the nation needs a policy push on patient-centered health care. Health Aff. 2010;29(8):7. https://doi.org/10.1377/hlthaff.2009.0888.
11. Dickson D, Hargie O, Morrow N. Communication skills training for health professionals. London: Chapman & Hall; 1997.
12. Hargie O. Skilled interprofessional communication. Research, theory and practice. London: Routledge; 2011.
13. Eton DT, Ridgeway JL, Linzer M, Boehm DH, Rogers EA, Yost KJ, Rutten LJF, St Sauver JL, Poplau S, Anderson RT. Healthcare provider relational quality is associated with better self-management and less treatment burden in people with multiple chronic conditions. Patient Prefer Adherence. 2017;11:1635–46.
14. van de Pol MH, Fluit CR, Lagro J, Niessen D, Rikkert MG, Lagro-Janssen AL. Quality care provision for older people: an interview study with patients and primary healthcare professionals. Br J Gen Pract. 2015;65(637):e500–7. https://doi.org/10.3399/bjgp15X686065.
15. Clochesy JM, Dolansky MA, Hickman RL, Gittner LS. Enhancing communication between patients and healthcare providers: SBAR3. J Health Hum Serv Adm. 2015;38(2):237–52.
16. Soares C, Marques AM, Clarke P, Klein R, Koskinen L, Krasuckiene D, Küçükgüçlü O, Lamsodiene E, Leitner K, Piscalkiene V, Söylemez B. Older people's views on professional competences. European Later Life Active Network. Report. 2016. http://ellan.savonia.fi/. Accessed 4 July 2016.
17. Bridges J, Flatley M, Meyer J. Older people's and relatives' experiences in acute care settings: systematic review and synthesis of qualitative studies. Int J Nurs Stud. 2010;47(1):89–107. https://doi.org/10.1016/j.ijnurstu.2009.09.009.
18. Tresolini CP, Pew-Fetzer Task Force. Health professions, education and relationship-centred care: a report of the Pew-Fetzer task force on advancing psychosocial health education. San Francisco: Pew Health Professions Commission; 2000.
19. Berkelmans PGJ, Berendsen AJ, Verhaak PFM, van der Meer K. Characteristics of general practice care: what do senior citizens value? A qualitative study. BMC Geriatr. 2010;10:80. https://doi.org/10.1186/1471-2318-10-80.
20. Dijkman B, Roodbol P, Aho J, Achtschin-Stieger S, Andruszkiewicz A, Coffey A, Felsmann M, Klein R, Mikkonen I, Oleksiw K, Schoofs G Soares C, Sourtzi P. European core competences framework for health and social care professionals working with older people. Ellan; 2016. 43p.
21. Vieder JN, Krafchick MA, Kovach AC, Galluzzi KE. Physician-patient interaction: What do elders want? J Am Osteopath Assoc. 2002;102(2):73–8.
22. Van der Elst E, de Casterlé B, Gastmans C. Elderly patients' and residents' perceptions of 'the good nurse': a literature review. J Med Ethics. 2012;38(2):93–7. https://doi.org/10.1136/medethics-2011-100046.
23. São José J, Barros R, Samitca S, Teixeira A. Older person's experiences and perspectives of receiving social care: a systematic review of the qualitative literature. Health Soc Care Community. 2016;24(1):1–11. https://doi.org/10.1111/hsc.12186.
24. Rodriguez-Martin B, Martinez-Andres M, Cervera-Monteagudo B, Notario-Pacheco B, Martinez-Vizcaino V. Perception of quality of care among residents of public nursing-homes in Spain: a grounded theory study. BMC Geriatr. 2013;13:65. https://doi.org/10.1186/1471-2318-13-65.
25. Peck BM. Age-related differences in doctor-patient interaction and patient satisfaction. Curr Gerontol Geriatr Res. 2011;Article ID 137492. https://doi.org/10.1155/2011/137492.

26. Berry D. Health communication. Theory and practice. London: Open University Press, McGraw-Hill; 2007.
27. Marcinowicz L, Pawlikowska T, Oleszczyk M. What do older people value when they visit their general practitioner? A qualitative study. Eur J Ageing. 2014;11:361–7. https://doi.org/10.1007/s10433-014-0313-0.
28. Nolan MR, Brown J, Davies S, Nolan J, Keady J. The senses framework: Improving care for older people through a relationship-centred approach. Sheffield: University of Sheffield; 2006.
29. Widder J. The origins of medical evidence: communication and experimentation. Med Health Care Philos. 2004;7:99–104.
30. Simpson M, Buckman R, Stewart M, Maguire P, Lipkin M, Novack D, Till J. Doctor–patient communication: the Toronto consensus statement. Br Med J. 1991;303:1385–7.
31. Lloyd M, Bor R. Communication skills for medicine. Edinburgh: Churchill Livingstone; 1996.
32. Manthorpe J, Moriarty J, Rapaport J, Clough R, Cornes M, Bright L, Iliffe S. "There are wonderful social workers but it's a lottery": older people's views about social workers. Br J Soc Work. 2008;38(6):1132–50. https://doi.org/10.1093/bjsw/bcl379.
33. Holm AL, Severinsson E. A qualitative systematic review of older persons' perceptions of health, ill health, and their community health care needs. Nurs Res Pract. 2013;Article ID 672702. https://doi.org/10.1155/2013/672702
34. Lagacé M, Tanguay A, Lavallée M-L, Laplante J, Robichaud S. The silent impact of ageist communication in long term care facilities: elder's perspectives on quality of life and coping strategies. J Aging Stud. 2012;26:335–42. https://doi.org/10.1016/j.jaging.2012.03.002.
35. Soares, et al. Are social representations of positive aging really effective? The aging process through the eyes of elderly people. J Spatial Org Dynamics. 2014;II(2):41–54.
36. Abrams D, Vauclair C-M, Swift H. Predictors of attitudes to age across Europe. 2011. http://kar.kent.ac.uk/29734/1/rrep735.pdf. Accessed 20 Nov 2013.
37. Whitbourne S, Sneed JR. The paradox of well-being, identity processes, and stereotype threat: ageism and its potential relationships to the self in later life. In: Nelson TD, editor. Ageism: stereotyping and prejudice against older persons. Cambridge: The MIT Press; 2002. p. 247–73.
38. Levy BR, Banaji MR. Implicit ageism. In: Nelson TD, editor. Ageism stereotyping and prejudice against older persons. Cambridge: MIT Press; 2002. p. 49–75.
39. Boudjemadi V, Gana K. L'âgisme: Adaptation française d'une mesure et test d'un modèle structural des effects de l'empathie, l'orientation à la dominance sociale et le dogmatisme sur l'âgisme. La Revue Canadienne du Vieillissement. 2009;28(4):371–89.
40. Bonneson J, Burgess E. Senior moments: the acceptability of an ageist phrase. J Aging Stud. 2004;18:123–42.
41. Jackson LD, Duffy BK, editors. Health communication research: a guide to developments and directions. London: Greenwood Press; 1998.
42. McLafferty I, Morrison F. Attitudes towards hospitalized older adults. J Adv Nurs. 2004;47(4):446–53.
43. World Health Organization. The Ottawa Charter for Health Promotion. In: First international conference on health promotion, Ottawa; 1986. http://www.who.int/healthpromotion/conferences/previous/ottawa/en/. Accessed 24 Oct 2017.
44. Stephens C, Breheny M, Mansvelt J. Healthy ageing from the perspective of older people: a capability approach to resilience. Psychol Health. 2015;30(6):715–31. https://doi.org/10.1080/08870446.2014.904862.
45. Lindberg C, Fagerström C, Sivberg B, Willman A. Concept analysis: patient autonomy in a caring context. J Adv Nurs. 2014;70(10):2208–21. https://doi.org/10.1111/jan.12412.
46. Hillcoat-Nallétamby S. The meaning of "independence" for older people in different residential settings. J Gerontol B Psychol Sci Soc Sci. 2014;69(3):419–30. https://doi.org/10.1093/geronb/gbu008.
47. Wiles JL, Leibing A, Guberman N, Reeve J, Allen RE. The meaning of "aging in place" to older people. Gerontologist. 2012;52(3):357–66. https://doi.org/10.1093/geront/gnr098.
48. World Health Organization. World report on disability. 2011. http://apps.who.int/iris/bitstream/10665/70670/1/WHO_NMH_VIP_11.01_eng.pdf. Accessed 31 Oct 2017.

49. Health Quality Ontario. Social isolation in community-dwelling seniors: an evidence-based analysis. Ont Health Technol Assess Ser. 2008;8(5):1–49.
50. Bastiaens H, Van Royen P, Pavlic DR, Raposo V, Baker R. Older people's preferences for involvement in their own care in 11 European countries. Patient Educ Couns. 2007;68:33–42.
51. Say R, Murtagh M, Thompson R. Patients' preferences for involvement in medical decision-making: a narrative review. Patient Educ Couns. 2006;60:102–14.
52. Kiesler D, Auerbach S. Optimal matches of patients preferences for information, decision-making and interpersonal behavior: evidence, models and interventions. Patient Educ Couns. 2006;61:319–41.
53. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. JAMA. 2002;288:2469–75.
54. Belcher VN, Fried TR, Agostini JV, Tinetti ME. Views of older adults on patient participation in medication related decision-making. J Gen Intern Med. 2006;21:298–303.
55. Levinson W, Kao A, Kuby A, Thisted RA. Not all patients want to participate in decision-making. A national study of public preferences. J Gen Intern Med. 2005;20:531–5.
56. Young Y, Frick KD, Phelan EA. Can successful aging and chronic illness coexist in the same individual? A multidimensional concept of successful aging. J Am Med Dir Assoc. 2009;10(2):87–92. https://doi.org/10.1016/j.jamda.2008.11.003.
57. Wolever RQ, Simmons LA, Sforzo GA, Dill D, Kaye M, Bechard EM, Southard ME, Kenned M, Vosloo J, Yang N. A systematic review of the literature on health and wellness coaching: defining a key behavioral intervention in healthcare. Glob Adv Health Med. 2013;2(4):38–57.
58. Dejonghe LAL, Becker J, Froboese I, Schaller A. Long-term effectiveness of health coaching in rehabilitation and prevention: a systematic review. Patient Educ Couns. 2017;100:1643–53. https://doi.org/10.1016/j.pec.2017.04.012.
59. Kibble S, Gray D, Prat-Sala M, Ross K, Johnson K, Packer J, Shire E, Cross R, Harden B. Recovery coaching in an acute older people rehabilitation ward. BMJ Qual Improv Rep. 2014;3(1):u205646.w2316. https://doi.org/10.1136/bmjquality.u205646.w2316.
60. Palmer S, Tubbs I, Whybrow A. Health coaching to facilitate the promotion of healthy behaviour and achievement of health-related goals. Int J Health Promot Educ. 2003;41(3):91–3. https://doi.org/10.1080/14635240.2003.10806231.
61. van Dijk HM, Cramm JM, Birnie E, Nieboer AP. Effects of an integrated neighborhood approach on older people's (health-related) quality of life and well-being. BMC Res Notes. 2016;9:450. https://doi.org/10.1186/s13104-016-2254-5.
62. Hibbard JH, Greene J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. Health Aff. 2013;32(2):207–14. https://doi.org/10.1377/hlthaff.2012.1061.
63. Daniels R, van Rossum E, de Witte L, Kempen GI, van den Heuvel W. Interventions to prevent disability in frail community-dwelling elderly: a systematic review. BMC Health Serv Res. 2008;8(1):278. https://doi.org/10.1186/1472-6963-8-278.
64. Clegg A, Young J, Iliffe S, Rikkert MO, Rockwood K. Frailty in elderly people. Lancet. 2013;381(9868):752–62. https://doi.org/10.1016/S0140-6736(12)62167-9.
65. Richard E, Jongstra S, Soininen H, Brayne C, van Charante EPM, Meiller Y, et al. Healthy ageing through internet counselling in the elderly: the HATICE randomised controlled trial for the prevention of cardiovascular disease and cognitive impairment. BMJ Open. 2016;6:e010806. https://doi.org/10.1136/bmjopen-2015-010806.
66. Shively MJ, Gardetto NJ, Kodiath MF, Kelly A, Smith TL, Stepnowsky C, Maynard C, Larson CB. Effect of patient activation on self-management in patients with heart failure. J Cardiovasc Nurs. 2013;28(1):20–34. https://doi.org/10.1097/JCN.0b013e318239f9f9.
67. Nguyen HQ, Gill DP, Wolpin S, Steele BG, Benditt JO. Pilot study of a cell phone-based exercise persistence intervention post-rehabilitation for COPD. Int J Chron Obstruct Pulmon Dis. 2009;4:301–13.
68. Frosch DL, Rincon D, Ochoa S, Mangione CM. Activating seniors to improve chronic disease care: results from a pilot intervention study. J Am Geriatr Soc. 2010;58(8):1496–503. https://doi.org/10.1111/j.1532-5415.2010.02980.x.

69. Kivelä K, Elo S, Kyngäs H, Kääriäinen M. The effects of health coaching on adult patients with chronic diseases: a systematic review. Patient Educ Couns. 2014;97(2):147–57. https://doi.org/10.1016/j.pec.2014.07.026.
70. Gerber LM, Barrón Y, Mongoven J, McDonald M, Henriquez E, Andreopoulos E, Feldman PH. Activation among chronically ill older adults with complex medical needs: challenges to supporting effective self-management. J Ambul Care Manage. 2011;34(3):292–303. https://doi.org/10.1097/JAC.0b013e31821c63b1.
71. Wolever RQ, Dreusicke M, Fikkan J, Hawkins TV, Yeung S, Wakefield J, Duda L, Flowers P, Cook C, Skinner E. Integrative health coaching for patients with type 2 diabetes: a randomized clinical trial. Diabetes Educ. 2010;36(4):629–39. https://doi.org/10.1177/0145721710371523.
72. Conn VS, Russell CL. Self-management of chronic illnesses among aging adults. J Gerontol Nurs. 2005;31(5):4. https://doi.org/10.3928/0098-9134-20050501-03.
73. Ownby RL, Waldrop-Valverde D, Taha J. Why is health literacy related to health? An exploration among U.S. National Assessment of Adult Literacy participants 40 years of age and older. Educ Gerontol. 2012;38(1):776–87. https://doi.org/10.1080/03601277.2011.645441.
74. Chen C-X, Feng L-N, Li S-X. The correlation between socioeconomic status and health self-management in the elderly. Int J Nurs Sci. 2014;1(4):410–5. https://doi.org/10.1016/j.ijnss.2014.10.008.
75. Geboers B, de Winter AF, Spoorenberg SLW, Wynia K, Reijneveld SA. The association between health literacy and self-management abilities in adults aged 75 and older, and its moderators. Qual Life Res. 2016;25(11):2869–77. https://doi.org/10.1007/s11136-016-1298-2.
76. Pinto JM. Barriers to social participation in caregivers of older people: a systematic review. Res Health Sci. 2016;1(2):78–84. https://doi.org/10.22158/rhs.v1n2p78.
77. Neri AL, Yassuda MS, Fortes-Burgos AC, Mantovani EP, Arbex FS, de Souza Torres SV, Perracini MR, Guariento ME. Relationships between gender, age, family conditions, physical and mental, health, and social isolation of elderly caregivers. Int Psychogeriatr. 2012;24(3):472–83. https://doi.org/10.1017/S1041610211001700.
78. Otis-Green S, Juarez G. Enhancing the social well being of family caregivers. Semin Oncol Nurs. 2012;28(4):246–55. https://doi.org/10.1016/j.soncn.2012.09.007.
79. Bennett JA, Perrin NA, Hanson G, Bennett D, Gaynor W, Flaherty-Robb M, Joseph C, Butterworth S, Potempa K. Healthy aging demonstration project: nurse coaching for behavior change in older adults. Res Nurs Health. 2005;28:187–97. https://doi.org/10.1002/nur.20077.
80. Jimison HB, Klein KA, Marcoe JL. A socialization intervention in remote health coaching for older adults in the home. In: Conference Proceeding Engineering in Medicine and Biology Society (EMBC), 3–7 July 2013, p. 7025–28. https://doi.org/10.1109/EMBC.2013.6611175.
81. Griffiths F, Lindenmeyer A, Powell J, Lowe P, Thorogood M. Why are health care interventions delivered over the internet? A systematic review of the published literature. J Med Internet Res. 2006;8(1):e10. https://doi.org/10.2196/jmir.8.2.e10.
82. Bond GE, Burr R, Wolf FM, Price M, McCurry SM, Teri L. The effects of a web-based intervention on the physical outcomes associated with diabetes among adults age 60 and older: a randomized trial. Diabetes Technol Ther. 2007;9(1):52–9. https://doi.org/10.1089/dia.2006.0057.
83. Sweet CMC, Chiguluri V, Gumpina R, Abbott P, Madero EN, Payne M, et al. Outcomes of a digital health program with human coaching for diabetes risk reduction in a medicare population. J Aging Health. 2017; https://doi.org/10.1177/0898264316688791.
84. Ickes MJ, McMullen J. Evaluation of a health coaching experiential learning collaboration with future health promotion professionals. Pedagogy Health Promot. 2016;2(3):161–9. https://doi.org/10.1177/2373379916649193.
85. Broadbear J, Broadbear B. Novice health and wellness coaches: implication for professional preparation. Pedagogy Health Promot. 2017; https://doi.org/10.1177/2373379917735344.

Collaborator

9

Petrie F. Roodbol and Marie Louise Luttik

Learning Objectives

You

- Realize the importance of collaboration.
- Get insight in the hindrances in collaboration and take initiative for improvement.
- Get insight of which tasks other professionals perform and which informal caregivers can do.
- Distinguish when professional help is needed and when informal care is enough.
- Recognize factors which lead to caregiver burden of informal caregivers.

9.1 Introduction

The care and support of older people is very complex. Their need for physical, mental, social and spiritual care is more than the sum of their parts. Mental, physical, social and spiritual problems are closely connected. There excist neither a health nor a social care professional who can deal with all these issues alone. Not the older person is the connecting factor between the different care, but the health and social care providers themselves are responsible to offer integrated care and support. When professionals do not cooperate, there is the risk of fragmented care, professionals only provide care for the part they are specialized for. Every professional involved in the care and support should be aware of the whole picture of the older person needs.

P. F. Roodbol (✉) · M. L. Luttik
Research Group Nursing Diagnostics, School of Nursing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: p.f.roodbol@umcg.nl; m.l.a.luttik@pl.hanze.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_9

A multidisciplinary team approach is necessary, in the own organization and outside the organization, with other parts of the health and social care chain. The prevention of confusion, discrepancies and vulnerability for functional decline of older persons compels collaboration to achieve coordinated care and unambiguous communication. Collaboration is an essential competence, not only to optimize the team approach but also to respond to the individual needs of older persons together with informal caregivers. Professionals in health and social care also work together with people outside the framework of organized, paid, professional work. Informal care and support have increased in many countries, with the adoption of community care policies that increasingly rely on care provided by family, relatives and friends. How to prevent them from caregiver burden? Collaboration is a relationship-centred process based on trust, respect and shared decision-making. This can occur in a team with informal caregivers or a professional team, as well as together with municipal and governmental institutions. It involves sharing knowledge, perspectives and responsibilities, along with mutual respect and willingness to learn together to improve the team performances. This requires understanding the roles of others, pursuing common goals and outcomes and managing differences. What is the role of the professional and what is the role of the informal caregiver? Older people receive support from their partners who are most of the time old by themselves and from their children who have their own family. What are the possibilities in informal setting and the official requirements and how to handle these? What help is provided by informal caregivers, what motivates them and what are satisfiers and dissatisfiers? What do they need from professionals? Collaboration of professionals with informal caregivers is important to prevent caregiver burden: stress perceived by caregivers due to home care situation.

Example

Mrs. R is a 75-year-old woman and is suffering from Alzheimer. She lives in a nursing home. Her husband who is 89 years old visits her every day. He lives independently with support of home help and a service dog because of his poor sight. One day he noticed that his wife is seriously smelling from her mouth. She does not wear her denture. He asks her if she has tooth pain, but she does not react. Therefore he informs the nurses and checks if they have the same observations. The nurses deny but admit they have no idea how to take care for her mouth because she does not want that, and besides that she has a denture. Oral hygiene stops with teeth brushing and putting a denture in a glass of water during the night. Mr. R reacts irritated; he is tired. The nurse suggests that he try to inspect her mouth by himself or consult a dental hygienist or a dentist. They order him too to take better care for her laundry; it is not clean and not sufficient.

9.2 The Role of Collaborator

Professionals in health and social care effectively work together with other professionals to achieve optimum support and care, if needed, for older people, with as goal optimizing their health and wellbeing and quality of life in multiple locations.

It is essential to collaborate effectively within the multidisciplinary team that provides the care and services for the older person and their family. Professionals in health and social care also work together with people outside the framework of organized, paid, professional work. Informal care and support have increased in many countries. The adoption of a participation model policies increasingly relies on care and support provided by family, relatives and friends. Collaboration is a relationship-centred process based on trust, respect and shared decision-making. This can occur in a team with informal caregivers or a professional team, as well as together with municipal and governmental institutions. It involves sharing knowledge, perspectives and responsibilities, along with a willingness to learn together. This requires understanding the roles of others, pursuing common goals and outcomes and managing differences.

The previous example is an illustration of poor collaboration with professionals and family. Mouth hygiene is very important especially for older people. Ulcers and infection in the mouth cause pain and discomfort but may also lead to a pneumonia. The nursing team has no eye for the (in) possibilities of the partner of the patient. The management of the nursing home needs to facilitate schooling of mouth care and easy accessibilities for regular consultation of a mouth hygienist. Nurses and mouth hygienists need to set up a plan for mouth care. There is a strong indication to make a plan for the support of Mr. R as well together with him and his supporting team, including the informal tasks for his wife.

9.2.1 Collaboration Defined

Working together or caring for the same patient or client is not the same as "collaboration". Professionals may address the same problem of older persons, but do not have an integrated planning. They do not use the same documentation with as a consequence that the interventions are not well coordinated. Collaboration means more: "Collaboration is a dynamic, interprofessional process in which two or more professionals make a commitment to each other to interact authentically and constructively to solve problems and learn from each other in order to accomplish identified goals, purposes or outcomes. The individual professionals recognize shared values that make this commitment possible [1]". Each professional works from his own profession, but with shared values, beliefs and commitment. Together they set up goals for the older person care and support. This means that the whole care and support process starts with a shared vision. What do we want to accomplish in the care and support of older people? When the team agrees that this is to keep them self-reliant as long as possible, then there is a shared goal. Each involved professional has to contribute to this goal, but not from his own island. Collaboration means also offering integrated care and support. For each older person, there needs to be a joint plan, a joint record with an individual approach to accomplish the goal to be self-reliant as long as possible. The interventions need to be discussed, coordinated and evaluated. Collaboration means also learning together. That means that the team takes time to reflect on their work, the process, the structure and outcomes.

They go beyond their results to analyse the success and fail factors, they develop a body of knowledge and they perform a team. Integrated care is a concept bringing together inputs, delivery, management and organization of services related to diagnoses, treatment, care, rehabilitation and health promotion. Integration is a way to improve services in relation to access, quality, user satisfaction and efficiency [2] (see also Chap. 10).

9.2.2 Hindrances in Professional Collaboration

The importance of collaboration is clear, and currently it is a part of the most current educational programmes. However, bringing it into practice appears not to be easy. Hindrances are consequences of the structure of the social and health-care system, differences in the status of professionals, moral, professional language, ICT shortcomings, social identity, power and unfamiliarity with each other's scope of practice. Health and social professionals presume they know what the other professionals can expect from each other, but this largely wrong. Traditional images prevail in spite of developments of the professions. Collaborative problems are one of the main causes of errors in health care.

Example
One of the problems in the care for older people is polypharmacy. In general, there is polypharmacy when a person takes five or more different medications a day. Elderly receive more than 50% of all prescribed medications. The risks of adverse drugs events, like interaction of different medications, poor adherence, urinary incontinence, cognitive impairment, loss of balance leading to falls [3]. *One of the causes of polypharmacy is poor collaboration of different specialists and practitioners for the multi-morbidity of older patients next to inadequate transfer of patient records.*

9.2.3 Organizational Barriers

One of the barriers for collaboration is the organization of the health-care system itself and especially the financial system. For the care and support of older people, professionals need to form a team of each professional who is involved at a certain older person. It is possible that financial structures and payments differ between the organizations involved. Consider the problems in one team when one professional is paid by fee for service and the rest of the team has a secure income from different sources. To overcome organizational and financial barriers, the boards of the different organization need to facilitate collaboration as well. Time is another important condition to set up a collaborative team. But there are more organizational barriers to face, like shortages or poor functioning of health and social professionals. It is important to have an appropriate staffing. Collaboration is hard when people have difficulties to reach each other by the lack of supplies. It is also important to have sufficient information. Each member of a collaborative team needs to have access to

all the information. Registration systems need to be compatible, and all the team members need to work in the same (electronic) record.

There is a difference between collaboration and consultation. The last is easier to accomplish. A consultation is interaction between two professionals in which the consultant is recognized as having a special expertise. The consultee requests the assistance of that expert for handling a problem [1]. It can be once in contrast to collaboration which is more sustainable.

9.2.4 Professional Barriers

One of the other hindrances in professional collaboration is the social identity of a professional. The "social identity theory" is a diffuse but interrelated group of social psychological theories concerned with when and why individuals identify with, and behave as part of, social groups, adopting shared attitudes to outsiders [4]. It is also concerned with what difference it makes when encounters between individuals are perceived as encounters between group members. This theory is thus concerned with both the psychological and sociological aspects of group behaviour. In sociology, a group is usually defined as a collection of humans who share certain characteristics, interact with one another, accept expectations and obligations as group members and share a common identity [5]. People derive their social identity from the group to which they belong. Who am I and who am I in relation to others? What do I have in common with others and how am I different? People aspire to a positive social identity, which is based on a favourable result of comparisons between the group to which one belongs and other related groups. There are several ways in which social identity can be changed. An individual can try to become a member of another social group with a higher status. In that case, the status of the original group does not change. Groups can try to change their status as well. A group can seek competition with another group by showing the irrationality of the differences between them. This strategy is aimed at emancipation of the whole group.

Collaboration and the formation of a new team can be favourable for professionals with a low image but unfavourable for professionals of high status. The latter will stay with their group and be reluctant to accept new members from a different background. They expect no profit from collaboration for themselves.

Gender and stereotypical images of health and social care professionals are barriers for collaboration as well. For example, traditionally physicians used to be male and nurses female. Although nursing is an independent profession, still a semi-hierarchical relation seems to exist between these two professions, also based on the stereotype of nurses as handmaidens instead of a bachelor educated professional. It is needed to be clear in tasks division and responsibilities and to profit from each other's work when possible. When a physiotherapist, for example, trains an older person in walking, why do not take her or him to the dining room of the nursing home? A great deal of successful collaboration is self-driven [6].

9.3 Competence: Integral Cooperation and Integrated Services

9.3.1 Competence Description

Work effectively together with other professionals for integrated care and support. Multi- and interprofessional collaboation are important to achieve optimal support and care for the older persons with a goal of optimising their health, wellbeing and quality of life in multiple locations.

Performance Indicators

- Demonstrate a positive disposition and commitment towards working together. Foster positive teamworking and maximize the potential of staff in providing high standards of care and services.
- Demonstrate knowledge of the roles and responsibilities of the members of the multidisciplinary team who provide care for older persons and of the roles of different categories of the support staff.
- Anticipate to the needs of other professionals; adjust to each other's actions, and have a shared understanding of what should happen.
- Engage in effective and respectful shared decision-making with inter- and intra-professional care and support providers, sharing knowledge, perspectives and responsibilities and willingness to learn together.
- Define the purpose and components of an interdisciplinary, comprehensive assessment and the roles individual disciplines play in conducting and interpreting a comprehensive assessment.
- Refer to and/or consult with any of the multiple health and social care professionals who work with older persons, to achieve positive outcomes.
- Demonstrate effective and safe handover, both verbal and written, during transition of the older person to a different setting or during a transition of responsibility for the care and support.
- Maintain and promote a culture of collegiality and respect in professional relationships.

9.3.2 Integrated Care

There are several ways to realize integrated care for older people with a collaborative team. A call for "collaboration" solely is hardly enough. It is preferable to facilitate it in an organizational form. But it always starts with a vision how to offer good care for older people. There are many initiatives and good practices to integrate all the care and support needs in one approach. For example, the Norrtaelje model is a Swedish initiative that transformed the funding and organization of health and social care in order to better integrate care for older people with complex needs [7].

9.3.3 Conditions for a Successful Collaboration

Although mutual respect, concern and trust are important, they are like just as personal integrity, hard to force. For a part these are personal values. Delivering of optimal quality in professional practice helps to gain respect and trust. This means that professionals at least need to work at the level of their professional standards. Professionals need to give feedback on the functioning of the team members to increase their performance. In an ideal situation, honest interest in each other helps to know what each other's professional boundaries are and each scope of practice. It is important to communicate with each other what to expect from each member of the team and how every team member will contribute to the shared goal and how to optimize the care and support for older persons by offering integrated care. It helps when professionals can meet each other physically or virtually. The threshold for communication must be low, which can be realized with a variety of communications tools. An informal meeting may help to in getting to know each other better.

Recognition of each skills and knowledge is important and sharing is essential. The team members must believe in the value of collaboration. They share ideas, goals, decisions, strategies for problem-solving and responsibilities [1].

It is also important that the team members use an unambiguously language. With a new view on health with a holistic perspective, medical diagnosis are not enough to describe the functioning of an older person. How to describe inadequate coping, health literacy or loneliness? Are these terms specific enough to prevent miscommunication? Do we use the same terms for the same problems in functioning? There are differences in inadequate coping, in the way people react and the incidents they react on. Stressors they react on may differ, but perceptions on stressors also vary from small problems in the family to responsibilities or crisis situations. The ICF (International Classification of Functioning; 6) is a classification of health and health-related conditions (including the social environment) that was developed by the World Health Organization (WHO) and published in 2001. It is a standard terminology and a classification system which makes it possible to classify problems and to map them with other classification systems (see also Chap. 3).

Conditions for a successful collaboration are as follows:

- Reciprocity, which means responding to a positive action with another positive action; rewarding kind actions.
- Interdependencies, team members having variable roles; there is no dominancy of one single person or professional.
- Accessibility, severe facilities to get easy access to all the team members.
- Multilayered, team members meeting each other at official but also on unofficial occasions.
- Mutual respect and trust.
- Common purposes.
- Unambiguous language.

When collaboration in a team is problematic, the members need to realize that this may affect their clients next to their own work satisfaction with negative consequences as stress and finally a burnout for themselves. A team approach with a coach or a mediator can be helpful to improve the communication and solve the problems.

9.4 Competence: Informal Care and Support

Next to the necessity of professionals to collaborate mutually, they also have to collaborate with informal caregivers. In most European countries, health-care policies emphasize the role of informal caregivers in the long-term care and support of older people. In the majority of EU countries, informal caregivers provide a great deal of the care needed, estimated at 60% of the total, on average. In Greece, 90% of care is provided by families. The same situation exists in some central European countries. In contrast, only 15% of the care tasks are performed by family members in Denmark. People who are already users of formal services also receive a large amount of informal care from their families. The median number of hours of informal care per week range from 28 h in Italy and 21 h in France to "only" 2 h in Finland and Denmark [8]. In almost all countries, more people receive (and prefer) long-term home care than institutional care. The exception is Slovenia, where institutional care is preferred for dependent older people.

Informal caregivers are defined as people providing any help to older family members, friends and people living inside or outside of their household who require help with everyday tasks. For central and eastern countries, older people care is largely seen as the responsibility of families. For western countries, this is relatively new since it is not voluntary but obligatory. In some countries informal caregivers have the option to reduce their working hours with a medium-term paid leave benefit. In some others informal caregivers have tax exemptions to compensate informal caregivers for their efforts.

9.4.1 Competence Description

Work together with older people's supportive family, informal caregivers and their social network to encourage appropriate informal care and support.

Performance Indicators

- Work effectively with the supportive family and informal caregivers on a basis of respect and equality.
- Coach informal caregivers on instrumental and emotional care to older people.
- Assist informal caregivers to reduce their stress levels and maintain their own mental and physical health.
- Assist informal caregivers to identify, access and utilize specialized products, professional services and support groups that can assist with caregiving responsibilities and reduce caregiver burden.

Although social and health-care professionals are important in the care and support of the older people, informal carers such as partners, family and neighbours or

volunteers are providing most of the care and support to older people in their day-to-day life [9]. Informal carers are therefore the most important partners to collaborate with in the care and services for older people.

By ageing the older population dependency ratio—the number of dependent person per independent person—is expected to more than double in the coming decades. These demographics put enormous pressure on our social and health-care systems in terms of costs and available workforce. As a result several reorganizations in social and health-care policies are being initiated leading to shortening of hospitalizations, early discharge and deinstitutionalization of care with older people living at home as long as possible.

In line with these developments, there is a growing awareness that care and support provided by family and volunteers is an important basis carrying the social and health-care system. Social and health-care policies more and more emphasize the importance of patients/clients and families' own responsibility for health and well-being by self-care, self-management and the participation of family members and other informal carers in the care and support for older people living at home. Social and health-care professionals subsequently need to make the shift from a patient-/client-focused approach to a family-focused approach including family and informal carers as part of the care team and as "clients" that may need support too.

9.4.2 Informal Care and Volunteers

Informal care, in a broad sense, covers concepts as "self-care", "usual care", "family caregiving" and "volunteer caregiving". Eurocarers, the European association working for carers, defines an informal carer as follows: "a carer looks after family, partners, friends or neighbours in need of help because they are ill, frail or have a disability. The care they provide is unpaid" [9]. The medical dictionary describes informal care as "care that is provided to the very young, the very old and the sick by family, friends, neighbours and concerned citizens, rather than by trained, licensed, or certified health care professionals". According to the OECD report Help Wanted? It seems that most informal care is mostly provided by the older people, above 45 years of age, themselves [10]. Carers are most likely to be women, although this ratio tends to change with more males becoming carers at older age [10].

Volunteer care can be described as work that is performed in any context on a nonobligatory and unpaid basis for other people or for society in general [11]. Furthermore, volunteer care is provided to people in need of help outside one's own social network, whether or not as a supplement to professional care or in order to support or replace carers [12].

9.4.3 Informal Care and Older People

With the increasing life expectancy, family relationships now last longer over time. Currently, we sometimes encounter couples, celebrating their 60th wedding anniversary with their ageing children, as their potential carers [13]. In general, carers themselves become older, and factors such as fewer children per parent increased

incidence of divorce, and migration of people from other cultural backgrounds will affect the size and nature of our social networks [9].

The support of family and informal carers (social support) is being described in terms of structural (size) and functional (satisfaction) aspects [14]. Social networks of older population generally decline with advancing age; older persons may have difficulty in maintaining their social relationships due to impaired physical conditions (increasing frailty and loss of mobility) or cognitive functioning (loss of memory and dementia) and sensory impairments (hearing loss) [15]. Furthermore, social networks may also decline because of the desire of older people to maintain only emotionally rewarding relationship in the face of their life expectancy [15]. In general literature indicates that women have larger social networks compared to men and that being separated, divorced or single has a greater impact on the social networks of men compared to women [15]. As social networks of older people change over time, comprehensive assessment of the structure and functioning of the family and social network of older people is highly necessary and requires constant monitoring over time [16].

9.4.4 Collaboration and Support

There are two basic assumptions that need to be acknowledged to assure optimal collaboration with older people and their families or informal carers.

Families and Other Informal Carers Influence the Process and Outcome of Health Care [13]

There is overwhelming scientific evidence that supportive relationships with one's family and one's personal social network are significantly associated with better health outcomes such as quality of life, wellbeing, self-care and self-management [17, 18]. Care provided by informal carers generally consists of the following:

- Providing personal care (ADL, activities of daily living): dressing, washing and eating
- Providing emotional support: providing comfort and keeping company
- Providing practical support: domestic support, mobility and transportation and financial management
- Providing motivational support: psychological support in following a healthy lifestyle

Family members and informal carers are therefore the most important partners to collaborate with in the care for the older people.

Health and Illness Affects All Members of a Family and Providing Care Affects the Lives of (Family) Carers [13]

Although caregiving is being described as a positive and rewarding experience, there is also a lot of evidence that supports the assumption that illness within the family and providing care to a family member put pressure on daily living of family members and on mutual relationships within the family [19]. Especially in the case

of intensive and long-term care, caregiving can become burdensome [20]. Research has indicated that family members and informal carers experience the following:

- Physical problems as a result of demanding care activities (lifting, washing/bathing)
- Emotional and psychological problems such as anxiety and depressive symptoms
- Practical or instrumental support in, e.g. household activities and administrative tasks
- Financial problems as a result of the costs of care (e.g. travel costs, medicines) and also because of job consequences when combining work and care

Therefore, also carers of older people may need support and guidance in organizing and managing their care situation together.

9.4.5 Implications for Practice

Family Care and the Care Triad

As a result of the above described, care for older people always should take place in the triad of the older person, the patient or client, his or her family and (social and health) care professionals (see Fig. 9.1). Because health care and especially nursing are in many cases the first point of contact, this paragraph is focused on nursing but also valid for all other types of health and social care workers. Relationships within this triad should be based on mutual trust, respect and shared responsibility and decision-making. Family care therefore implies a systemic approach in which the older person and his or her family together are the central unit of care.

The care process within health-care disciplines generally includes the systematic process of assessment, diagnoses, care planning, defining outcomes and interventions and evaluation.

Family Assessment

The first step in the care process based on a systemic or family-oriented approach is a family assessment. Assessment tools are designed to gather information in a systematic way and to identify problems. Assessments in health care at this moment

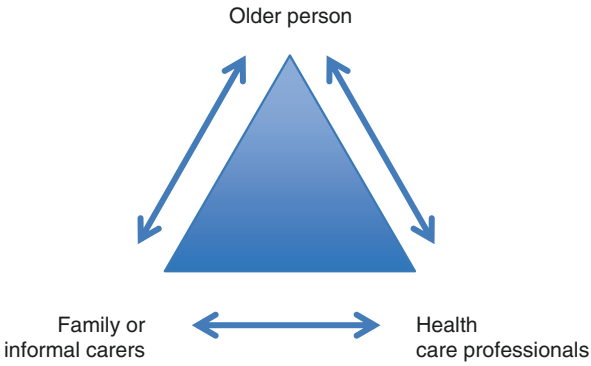

Fig. 9.1 Care triad

Table 9.1 Brief family-focused assessment

Element	Tools
Individual demographic data	
Family demographic data	
Illness or health promotion concern of the individual	
Illness or health promotion concern of the family	
Family structure and developmental information	Genogram
Family routines disrupted by the illness	
Family health promotion actions	
Family economic status	
Family cultural status	
Family connections to the larger community	Ecomap

From: *Family Focused Nursing Care, Denham et al, 2016, page 116*

are mainly focused on the individual's physical and/or psychological health and health history, while it is necessary to view and assess the whole care situation including the role and needs of family and informal carers [21] (see Chap. 7). A family assessment focuses not only on the individual but also on the family, the household and relationships with the community [21]. An example of the elements in a brief family-focused assessment including family structure, function and processes is shown in Table 9.1.

Assessment Tools

Tools that can be useful within the process of the family assessment are the genogram and the ecomap. Both tools are visual diagrams of the family structure and functioning and of families' relationships to the larger community, respectively [22].

Genograms are historically used in the context of genetic prediction; however, its use is growing in a number of practice and research contexts. Genograms provide professionals with a quick overview of the family structure and its complexities (see Figs. 9.2 and 9.3) [22]. By drawing a genogram, health-care professionals and families gather information generally over three generations about [22]:

- The structure: who is in the family?
- The developmental stage of the family life cycle
- The instrumental and emotional functioning of the family: daily routines and activities, e.g. quality of relationships, mutual communication and problem-solving skills

Ecomaps provide health-care professionals and families with a visual overview of the families' contacts with larger community systems such as contacts with work, school, friends, different health-care system facilities and so forth.

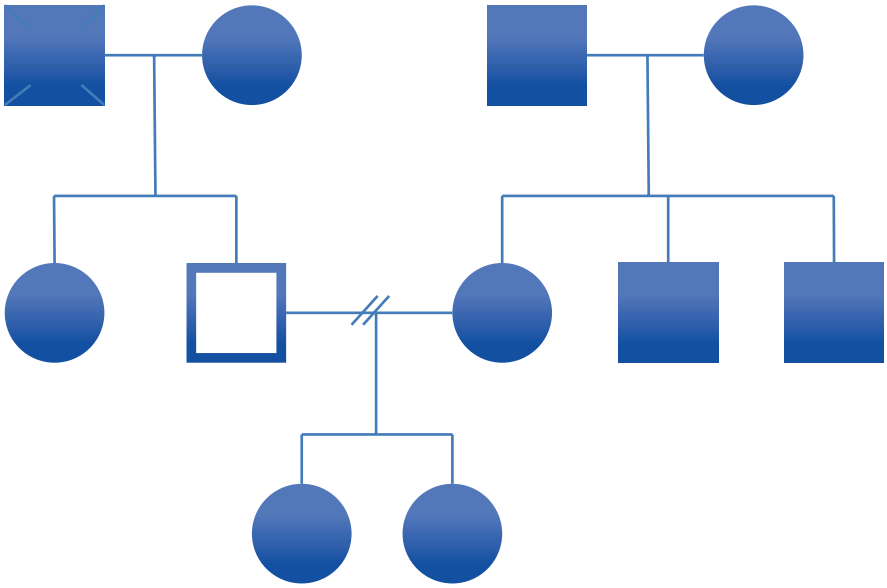

Fig. 9.2 Blank genogram (based on Wright & Leahey, 2013) [22]

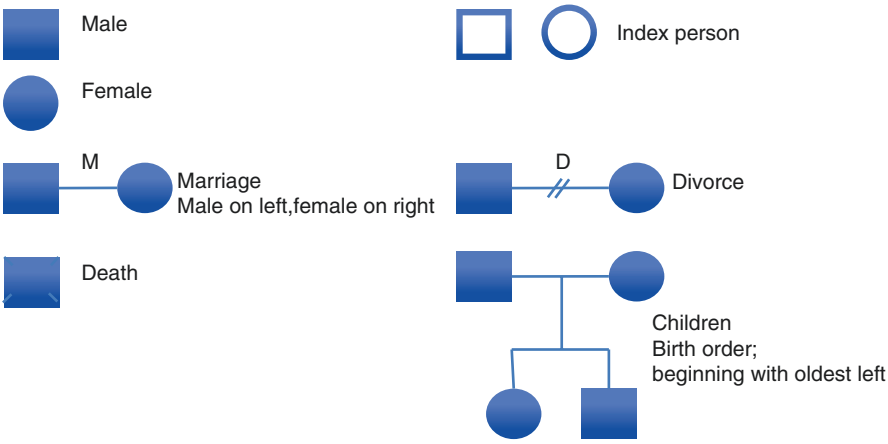

Fig. 9.3 Symbols used in genograms (based on Wright & Leahey, 2013) [22]

Diagnoses and Interventions

Information gathered during the family assessment will provide insight in the health-care needs of the older person and his or her family. These needs may vary from:

- Support in physical care
- Support in emotional and psychological processes

– Support in practical activities
– Support in financial problems

Family Interventions
Depending on the needs of the older person and his or her family, interventions may focus on the cognitive domain in terms of the following:

– Offering information and advice on optimal ways to provide care for each other within the family
– Drawing an ecomap together with the family to gain insight in who in the community may be able to support in the care that is needed
– Offering information and advice on how to identify, access, obtain and utilize health-care products and facilities (including supportive technology)

The affective domain in terms of the following:

– Offering conversations on the consequences of the care situation for the older person and all family members/informal carers, changing of roles, burden of caregiving and the acknowledgement and recognition of emotions and pain
– Encourage families to talk with each other about the care situation and about everyone's wishes and expectations
– Offering coaching, emotional support or counselling in the family care process and family functioning over time

The behavioural domain in terms of the following:

– Offering information and advice on health risks of the older person and his/her family members in the care situation and (behavioural) strategies regarding how to handle these risks and how to stay healthy
– Offering conversations and coaching with regard to behavioural changes that are needed and how to obtain these

9.5 Assignments

1. At your work or during your internship, when encountering an older adult, conduct family assessment. Familiarize yourself with the tools, genogram and ecomap. Use these tools in the assessment.
2. At your work or during your internship, evaluate the collaboration by using the requirements discussed in this chapter. What obstacles exist for collaboration? Is that the general opinion of some specific team members? How could the collaboration be improved?

3. Investigate what is the situation in your country related to the care provided with informal caregivers and voluntary people (see statistics and research as well as journals).
4. Interview an informal caregiver of an older person. Use the knowledge used in this chapter (e.g. what is the content of the care given by the informal caregiver; what challenges the informal caregiver encounters in her/his work?).

References

1. Hamric Ann B, Spross Judith A, Hanson Charlence M. Advanced nursing practice, an integrative approach. Philadelphia: Saunders; 2000. p. 325–33.
2. WHO. 2002. http://www.who.int/patientsafety/en/.
3. Haja ER, Cafiero AC, Hanlon T. Polypharmacy in elderly patients. Am J Geriatr Pharmacother. 2007;5(4):345–51.
4. Taifel H, Turner JC. An integrative theory of intergroup conflicts. In: Worchel S, Austin LW, editors. Psychology of intergroup relations. Chicago: Nelson-Hall; 1986.
5. Roodbol PF. Multiprofessional education to stimulate collaboration: a circular argument and its consequences. GMS Z Med Ausbild. 2010;27(2):Doc28.
6. WHO. International Classification of Functioning, Disability and Health (ICF). 2001. http://www.who.int/classifications/icf/en/.
7. Bäck MA, Calltorp J. The Norrtaelje model: a unique model for integrated health and social care in Sweden. Int J Integr Care (Open Access). 2015;15:e016.
8. Genet N, Kroneman M, Boerma WG. Explaining governmental involvement in home care across Europe: an international comparative study. Health Policy. 2013;110(1):84–93.
9. Factsheet Family Care in Europe. Vilans, Centre of Expertise Informal Care, MOVISIE, Mezzo & Eurocarers. http://www.eurocarers.org/userfiles/file/factsheets/FactsheetEurocarers.pdf.
10. Help wanted? Providing and paying for long-term care. OECD; 2011.
11. Van Gorp en SteenbeGorp, J. van en M. Steenbergen. De vrijwilliger. Een eigen plek in de zorgdriehoek. In: Knipscheer, Kees (red.), Dilemma's in de mantel-zorg. NIZW; 2004. p. 165–75.
12. Struijs A. Informal care: the contribution of family carers and volunteers to long-term care. The Netherlands: The council for Public Health and Health Care. 2006.
13. Kaakinen JR, Padgett-Coehlo D, Steele R, Tabacco A, Harmon Hanson SM. Family health care nursing; theory, practice, and research. Philadelphia: F.A. Davis Company; 2015.
14. House JS, Umberton D, Landis KR. Structures and processes of social support. Annu Rev Sociol. 1988;14:293–318.
15. McLaughlin D, Vagenas D, Pachana NA, Begum N, Dobson A. Gender differences in social network size and satisfaction in adults in their 70s. J Health Psychol. 2010;15:671–9.
16. Luttik ML, Jaarsma T, Stromberg A. Changing needs of heart failure patients and their families during the illness trajectory: a challenge for health care. Eur J Cardiovasc Nurs. 2016;15(5):298–300.
17. Reifman A. Social relationships, recovery from illness and survival: a literature review. Ann Behav Med. 1995;17:124–31.
18. Roth DL, Fredman L, Haley WE. Informal caregiving and its impact on health: a re-appraisal from population-based studies. Gerontologist. 2015;55(2):309–19. https://doi.org/10.1093/geront/gnu177. Epub 2015 Feb 18. Review.

19. Northhouse LL, Katapodi MC, Shcafenacker AM, Weiss D. The impact of caregiving on the psychological well-being of family caregivers and cancer patients. Semin Oncol Nurs. 2012;28(4):236–45. https://doi.org/10.1016/j.soncn.2012.09.006. Review.
20. Schulz R, Beach SR. Caregiving as a risk factor for mortality: the Caregiver Health Effects Study. JAMA. 1999;282(23):2215–9.
21. Denham S, Eggenberger S, Young P, Krumwiede N. Family-focused nursing care. Philadelphia: F.A. Davis Company; 2016.
22. Wright LM, Leahey M, editors. Nurses and families. A guide to family assessment and intervention. Philadelphia: F.A. Davis Company; 2013.

Organizer

10

Marjut Arola and Tuula Kukkonen

Learning Objectives

You

- Identify care planning and care management processes.
- Understand the principles of person-centred geriatric care management.
- Understand the principles of quality assurance in services for older people.
- Utilize evidence-based knowledge in quality assurance and service development.
- Know how to support the participation of the clients and investigate their experiences in the development of services.
- Evaluate the service programs, processes and their outcomes
- Use the information produced in the evaluation in order to develop the services.

10.1 Introduction

Professionals in social and health care organize and manage care and services for older people. Particularly during transitions, they focus on integral connectivity and continuity of care and support for older people. They actively plan and coordinate. They are able to demonstrate leadership in the team and are able to chair meetings. They contribute to the improvement of care and services for older people in teams, organizations and systems. They interact with their social and health systems

M. Arola (✉) · T. Kukkonen
Karelia University of Applied Sciences, Joensuu, Finland
e-mail: marjut.arola@karelia.fi; tuula.kukkonen@karelia.fi

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_10

locally, regionally and nationally. They take an active part in developing, adapting and implementing long-term policy actions for the care and services of older people on a national, regional, local or organizational level.

Example

Maija is a social worker with 10-year professional experience in municipal social work. For the last 5 years, she has worked as a geriatric social worker. From the beginning of 2017, Maija was administratively transferred from municipal social and health-care services to the regional social welfare and health-care federation. This change is a part of national social and health-care reform that will be implemented in Finland by 2020. In this new administrative structure, Maija is working as a social worker in the services for older people. She works in a multi-professional team, which is responsible for evaluating the service needs and organizing geriatric care management and housing services for older people. In her work, Maija also participates in various work groups that evaluate the quality of older people's services and develop the services together with service providers and users.

Maija is a member of "resolve, evaluate and place" team (SAS-team in Finnish) which organizes suitable housing services and institutional care for older people. The aim of the team is to support older people's independent living and coping for as long as possible. Older people and their relatives participate in the service needs assessment, and if necessary, they are provided with geriatric care management. Housing and care decisions are made together with the clients and their relatives and care providers.

As a social worker, Maija coordinates the activities of statutory council for older people. The purpose of the council is to monitor regional needs of ageing people and establish contacts with pensioners' non-governmental organizations and older people living in care institutions. The regional council for older people meets once a month, and Maija's duty is to support and develop the activities of the group together with the members. Maija encourages and supports older people to participate and influence to the development of older people's living conditions and services.

By collecting local, regional and national information of older people's services as well as changes in the service structure, Maija monitors the implementation of national quality recommendations for older people's services. She also participates in evaluating the effectiveness of services, and whenever possible, she'll provide information on cost-effectiveness and quality deviations to other authorities and decision-makers.

10.2 The Role of Organizer

Social and health-care professionals organize and manage care for older people. During transitions in particular, they focus on promoting the integration and continuity of care required for optimal support of older people. They will actively plan and coordinate tasks and should be able to demonstrate leadership in the team.

Social and health-care professionals contribute to the improvement of care and services for older people in teams, organizations and the overall social and health-care systems. They must therefore interact with their social and health-care systems locally, regionally and nationally. Furthermore, they actively take part in developing, adapting and implementing long-term policy actions for care and services for older people on a national, regional, local or organizational level.

Competences which form part of the organizer role are related to planning, arranging and coordinating the care and services for older people, which are provided by a variety of formal and informal care and support workers.

Social and health-care professionals working with older people are expected to take responsibility of not only the direct work with clients but the organizing and developing services as well. What does it mean to work as an organizer when it comes to the services for older people? What does organizing mean in practice? What should you know when working as an organizer?

When working as an organizer, you need to keep your focus on the perspective of continuous development of the services. It is important that you see this role not as a representative of the service system but as a mediator between the system and the older people. In that relationship, it is essential for you to focus on supporting the possibilities of older people to participate and influence the direction which the services are being developed.

For the role of organizer, there are two competences. The first competence is about planning and coordination of care and services; the second one concerns program of care and services.

10.3 Competence: Planning and Coordination of Care and Services

Plan, arrange and coordinate the care and services provided by formal and informal social and health-care workers, across different organizations, to provide the best personalized care and support for the older person and their family.

Performance Indicators

- Provide care management to link older persons and their supportive families to resources and services and to conduct long-term planning.
- Arrange and coordinate the care provided by informal care and various care organizations and services around the older persons.
- Recognize and respect the variations of needed care and support, the increased complexity and the increased use of health-care resources inherent in caring for older people.
- Facilitate safe and effective transitions across levels of care and support, including acute, community-based care and services and long-term care (e.g. home, assisted living, hospice, nursing homes) for older people.

- Demonstrate leadership in the team and ability to chair meetings.
- Contribute to quality improvement and safety of older persons using the best available knowledge and practice.
- Use health informatics and other data to improve the quality of care and services for older people and their families.
- Prioritize, execute tasks collaboratively with colleagues and make systematic choices when allocating scarce health-care resources for optimal care and support for older people and their families.
- Liaise with relevant disciplines in order to maintain and/or improve organizational, managerial and professional practice in order to ensure a safe environment for both the professionals and the older people.

The competence "planning and coordination of care and services" is divided into two areas of expertise: person-centred geriatric care management and improvement of the quality of social and health-care services for older people. The first area of expertise is more focused on working with clients, their families, local communities and social and health-care providers, while the second one is focused on ensuring and improving the quality of services by utilizing multidisciplinary and evidence-based knowledge.

10.3.1 Person-Centred Geriatric Care Management

Geriatric care management (also known as *elder care management, professional care management, senior health-care management*) is defined as a process of planning, coordinating and reviewing the care of an individual in order to improve their quality of life and maintain their independence for as long as possible [1]. Care management is based on person-centred approach, which means that suitable and adequate services are tailored for clients on the basis of their needs rather than system-based. As described in the example above, geriatric care managers are working with older people and their families by managing and rendering various types of social and health-care services. Geriatric care management utilizes knowledge of health and social sciences, psychology, human development and family dynamics, as well as knowledge of social and health-care service systems in public, private and third sectors.

Geriatric care management has many similarities with *case management*, and these concepts are often used as a synonym for the same service or competence. There are, however, differences between them. Jullie Gray [2] has analysed case management and care management and found seven structural differences, which are related to background of professionals, organizations, limits, focus, stakeholders, payments and goals. For example, when considering the limits, in care management, client defines the scope of the work, while in case management it is defined by the agency or organization. Also Gray [2] defines that even though the focus of both of these approaches is holistic and client or family centred, care management is striving to advocate for client's needs and maximum benefits (i.e. from an insurer),

while in case management also medical, legal and financial issues will also be taken into account. Despite the differences, both geriatric care and case managers face the same topical phenomena in their work: growing number of ageing clients, scarce social and health-care resources and need for individual service planning.

Geriatric care managers are mostly nurses, social workers, gerontological nurses or other social and health-care professionals depending on the organization they work for. Like social worker, Maija in our example, a geriatric care manager coordinates care and services to meet the full social, emotional, physical and health-care needs of older people and their families. Care managers search and design services for clients based on their individual needs. They integrate and coordinate health, social care and psychological services as well as other services such as housing and home care services, meals-on-wheels and assistance of activities of daily living.

In client work, roles and duties of geriatric care mangers vary depending on their education and professional background. Generally, they conduct in-person assessments, make care plans, arrange services and continually evaluate their clients' service needs. The National Care Planning Council of America [3] has compiled a more detailed list of care managers' duties in social and health-care services. They help older people and their families, for example, by:

- Identifying problems and service needs and compiling care plans
- Making sure care is received in a safe and disability-friendly environment
- Resolving family conflicts and other family issues relating to long-term care
- Becoming an advocate for the care recipient and the family caregiver
- Conducting ongoing assessments to monitor and implement changes in care
- Overseeing and directing care provided at home
- Coordinating the efforts of key support systems
- Providing personal counselling
- Arranging for services of legal and financial advisors
- Managing a conservatorship for a care recipient
- Providing assistance with placement in assisted living facilities or nursing homes
- Monitoring the care of a family member in a nursing home or in assisted living
- Finding appropriate solutions to avoid a crisis
- Coordinating medical appointments and medical information
- Providing transportation to medical appointments
- Assisting families in positive decision-making

As a professional care manager, you must have appropriate skills and expertise in order to successfully carry out care management processes. Ross et al. [4] have listed four key areas that influence this ability: assigned accountability, role and remit, skills and support and collaboration with key stakeholders, including clients and their families. First, by assigned accountability, they mean that for successful care management, there must be a single professional or a team, such as the "resolve, evaluate and place" team in our example, which is accountable for the whole care management process, including the entirety of services the clients use. They emphasize that if the accountability is not clearly assigned to all professionals working

with the client, there is a risk that care becomes fragmented. Second, they point out that clarity around the roles, responsibilities and boundaries of all those involved in client's care promotes care management process. Usually, problems in the care management process are due to a lack of clarity regarding role boundaries and lack of communication between different care providers and professionals. Third, a professional care manager should be equipped and trained with necessary skills, like interpersonal skills, problem-solving skills, negotiation skills and co-operation skills. These skills have found to be more important in geriatric care management than professional ones. Fourth, Ross et al. [4] note that as a successful care manager you need to build effective relationships with patients and a number of other stakeholders. From this wide range of relationships, they highlight the relationships between care managers and their client and relationships between care managers and other social and health-care professionals.

A person-centred care management is based on holistic understanding of individuality. It honours each individual's uniqueness in their skills and abilities. The purpose of care management is to maintain each older person's mental, physical and social performance in their everyday life. Whenever possible older people should be encouraged to make their own decisions concerning the care and services they need. A person-centred approach also recognizes strengths and respects individual diversity [5]. Marjorie Lloyd [6] emphasizes that, in order to be empowered, older people must feel control over their own life within their particular spiritual and sociological environment. She points out for example, that by taking them away from their familiar environment, we weaken them and take away their own resources. Therefore, it is important to support older people stay in their own, safe and comfortable environments for as long as possible.

A person-centred model requires systematic approach and multi-professional co-operation in service design. It is important that all members of the social and health-care team work together to ensure the best possible care and services. In order to be an effective, care planning must be seen as a systematic process consisting of different steps or phases. There are several different models or frameworks for care planning introduced in the literature (see [4, 7–9]). One of the best known and most used models among social and health-care professionals is the four-step APIE framework. Lloyd [6] parses her person-centred and empowering APIE model of care planning for four steps and action recommendations:

1. Assessment
   - Observe, listen and communicate specific individual needs and strengths using appropriate documentation.
2. Planning
   - Identify the measurable goals to meet the needs of individual client's and their families, as well as the social support system.
3. Implementation
   - Participate in and arrange achievable and realistic interventions in the appropriate context.
4. Evaluation
   - Seek timely support and guidance in evaluating the care plan with all members of the team.

Lloyd's empowering care planning model is based on inclusive and systematic professional approach. Older people and their support networks are basically in the centre of care planning. In each phase of the model, professionals are required to take different approaches to provide the most suitable care and services to the individual. All phases are important, and they have a unique contribution to the care planning process. Each phase also requires different skills and practices which Lloyd [6] has summarized as follows:

1. *Assessment* is the basis of the whole process, and it can be carried out by using different assessment tools to produce an in-depth analysis of an older person's needs. In assessment stage, you, as a professional, must have good communication skills and the ability to observe physical, social and psychological changes in the overall situation of the client.
2. *Planning* requires the ability to identify client's short-term and long-term goals in their care and rehabilitation process. In planning phase, it is important that you clearly define and document these goals so that everyone involved in the process has a common understanding of them.
3. In the *implementation* phase, you should identify and arrange achievable interventions, which aim at client's rehabilitation and recovery. These interventions should be based on individual needs documented in care plan. Interventions must also be measurable, in order to monitor their effectiveness.
4. In the *evaluation* phase, the whole care plan is reviewed formally with the multiprofessional team. Evaluation phase reminds you that individual client's needs must be reassessed at regular intervals to ensure that the care plan is up to date. If regular evaluations are neglected, it is difficult to identify any changes in the client's rehabilitation.

Systematic compliance of the care planning process ensures that older people receive individual and demand-driven services. Systematic and standardized processes will also increase the quality of the services in the long term. The next chapter will open to you the importance of quality improvement in health and social services for older people.

10.3.2 Improving the Quality of Social and Health-Care Services for Older People

The quality of social and health care has been broadly defined by various institutions over the past few decades. According the National Committee for Quality Assurance [10] quality health care is "doing the right thing for the right patient, at the right time, in the right way". A widely used definition, originally launched by the Institute of Medicine in 1990, defines quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge". This definition emphasizes on both individual and population levels of analysis, links health-care

services with desired health-care outcomes and focuses upon the gap between current and desired practices [11].

World Health Organization's definition for the quality of health care includes six dimensions. According to WHO [12] the quality of health care is defined "the extent to which health care services provided to individuals and patient populations improve desired health care outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centred". *Safeness* as a quality dimension means that health-care service delivery, in principle, should minimize risks and harm to services users. *Effectiveness* aims at provision of services which are based on scientific knowledge and evidence-based guidelines. Right *timing* signifies reducing delays in providing and receiving health-care services. *Efficiency* emphasizes health-care delivery, which maximizes resources and avoids waste. *Equity* obliges that services must be consistent to everyone, regardless of personal characteristics such as gender, race, ethnicity, geographical location or socioeconomic status. And finally, *people-centred* points out that service provision must take into account the preferences and aspirations of individual clients as well as the culture of their community [9, 10, 12].

Particularly, it is important to pay attention to the quality improvement of services for older people, as the research results have shown, for example, that vulnerable older adults receive about half of the recommended care and the quality of care varies widely, depending on the service provider [13, 14]. The aim of the quality improvement is to increase client orientation and equality in accessing services by setting justified qualitative and quantitative, short- and long-term goals for key services. These goals can be achieved by developing care, strengthening professional co-operation and increasing older people's participation in service processes and service development. As the population ages, it is also important to support and strengthen age-friendly attitudes both in service institutions and in society.

A number of international and national quality recommendations have been published specially for older people's services. For example, in Finland, the Ministry of Social Affairs and Health, together with the Association of Finnish Local and Regional Authorities, issued in 2017 a quality recommendation [15], which strives to guarantee high-quality ageing and effective services for older people. The purpose of the recommendation is to set guidelines for the development of services for the older people. The recommendation is primarily targeted to municipal policymakers and leaders in the development and evaluation of services for the older people. Also, the producers of health and social services, as well as professionals working with older clients, can utilize the recommendation in their activities. The recommendation consists of five thematic areas: guaranteeing functional capacity of older people, arranging service counselling for clients, personnel of the services, structure of age-friendly services and the use of technology. All of these content areas have their own recommendations both for the individual and population level.

Referring to the example above, the quality improvement is an essential part of social and health-care professionals' work. There are several different methodologies, approaches and tools which can be utilized in quality improvement both in client work and service development. According to the Health Foundation [16], these quality improvement tools should have common goals, focusing on the following principals:

- Understanding the problem, with a particular emphasis on what the data tell you
- Understanding the processes and systems within the organization—particularly the patient pathway—and whether these can be simplified
- Analysing the demand, capacity and flow of the services
- Choosing the tools to bring about change, including leadership and clinical engagement, skills development and staff and patient participation
- Evaluating and measuring the impact of a change

Better quality can be achieved, for example, by using approaches like: business process re-engineering, experience-based co-design, lean, Six Sigma, model for improvement (including PDSA) or total quality management (TQM). More important than the approaches and tools used is, however, to ensure that professionals and managers have enough knowledge and resources to make regular quality improvement actions.

10.4 Competence: Program of Care and Services

As an organizer, you need to contribute to the organization of the existing care and services within the region, which can be offered to groups of older people and their families. It is important for you to take an active part in developing, adapting and implementing long-term policy actions relating to care and services for older people on a national, regional, local or organizational level.

Performance Indicators

- Identify how policies, regulations and programs impact older people, their families and their caregivers, particularly vulnerable groups of older people.
- Identify methods of outreach to older persons and their families to insure appropriate use of the service continuum (e.g. health promotion, long-term care, mental health). This includes understanding the diversity of older people's attitudes towards the acceptance of services.
- Identify the need of new kind of services for older persons and their families, and take the initiative to develop these.
- Participate actively in developing, adapting and implementing long-term policy actions on a national, regional, local or organizational level.
- Integrate relevant theories and concepts—where possible evidence based with the focus on wellbeing and quality of life of older people.
- Evaluate the effectiveness of practice and programs in achieving intended outcomes for older persons.
- Apply evaluation and research findings to improve practice and program outcomes.
- Identify the availability of resources and resource systems for older persons and their families.
- Identify the major sources of funding for meeting the needs of older people.

The competence "program of care and services" is divided into two areas of expertise:

- Development of new services to answer the changing and diverse needs of older people
- Evaluation of the programs and services

In the first area of expertise, the role of older people as partners in development of services is emphasized. The second one is focused on the essentials you as an organizer need to know about program evaluation and its main perspectives.

10.4.1 Development of New Services to Answer the Changing and Diverse Needs of Older People

10.4.1.1 Older People as Partners in Service Development

When working as an organizer, it is essential for you, likewise the social worker in our example, to consider the role of older people and the stakeholders in service development in order to achieve sustainable solutions in answering the changing and diverse deeds of older people.

When you strive for better understanding of the older people's perspective to the services, it is important to consider different positions of the older people according to the service production and especially the choice of services and the possibilities to give feedback and influence the development of services. Wanna [17] emphasizes the importance of language in the policy context. The way of describing the end-user of services has an impact on the quality of services. According to Wanna's classification, the following concepts can be used when considering the end-users of services:

– Citizens. This concept emphasizes legal rights, universality and standardized services.
– Clients, referring to individual recipients of service, with limited choice and influence to the service production process.
– Customers, who are market actors, choosing services actively and paying for them.
– Consumers, with a possibility to complain and avoid consuming, too.

When you work as an organizer, it is important for you to consider the choice of service and the means of exit, voice, feedback and loyalty. It makes a difference to service system whether the end-user has no choice or a wide possibility to vote with his/her legs. According to Wanna [17], clients enter the service relationship voluntarily and have some choice, but the choice is not necessarily a real one. Customers, instead, buy services and perceive themselves as free actors to change the service provider. We might consider how these differences and positions affect to the operations and development interests of service producers—or do they? In this chapter,

we will proceed with the concept of client, because of its established function in the field of social and health-care services, and will point out when using other concepts related. Thus, you should consider this distinction between the concepts and recognize their use in different contexts.

There are many examples of the change of the attitudes towards the role of older people, not as recipients of services and care but as voters, tax payers and potential users of social and health-care services. There is a strong demand for new ways of organizing and producing services, which answer to the needs of older people. The essential features needed are, e.g. supporting independence and healthy ageing, indicating better coordination and integration and offering care close to home [18].

Thus, older people are active players and need to be taken into account in the entire process of developing services, like the social worker Maija in our example does. For Example, Ashcroft [19] reports about a UK Grey Pride Campaign, which aimed at establishing a minister for older people, in order to influence in the use of resources and development of services according to the older people's expectations. The campaign disclosed a broad perspective to ageing society, e.g. needs to improve road safety for older people and to encourage endeavours to strengthen age-friendly business [19].

You need to recognize that there are many other stakeholders to be included in the development of services, in addition to older people. Stakeholders are individuals or groups, who have some interest in a service program of policy and also interest and capacity to influence to the development of those [17].

Older people, as recipients of the services, and their families and networks are the most evident stakeholders in relation to the services for older people. Other possible stakeholders are potential service providers who have interest to deliver new kind of services, community actors connected with the problem or issue (e.g. local associations) and other institutions like governmental agencies, universities and the media. Engaging stakeholders in the service development process requires specific skills but also time and resources. Consulting them provides the development process with important information and insights. Furthermore, it may create support and acceptance needed to implement the program [17].

Besides the direct work with the clients, it is crucial to note the interventions into the relationship between older people and their social environment as part of professionals' work. Apparently, this is necessary as basis when striving for sustainable development of services.

The target of this kind of work may be either the situation of the individual older people or the social environment or the relationship between the client and the environment. When the social environment is the primary target, the work orientation is called structural work [20]. This concept arises from social work tradition but can be applied more widely.

Wood and Tully [20] define the principles of the structural orientation, naming accountability to the client to be the most important one. Structural work is based on the felt need of the clients and the pressures experienced by them. The professional aims at maximizing the support from the older people's environment and minimizing contests and pain. Successful structural work helps the older people in changing the relationship to the environment (See also [21]).

Weinberg [21] points out the ethical dilemma built in the structural work orientation. The professional is part of the institutions of the society and service system—macro-systems—which may represent the social environment causing the undesirable experiences to the client. At the same time, the professional is challenged to support the client, keeping empowerment as a goal for the interventions.

The structural orientation points out the professional's role in supporting the older people to actively participate in service development, to strive for changing the service practices which do not optimally serve the older people's needs and get empowered enough to act this way.

10.4.1.2 Emphasizing the Role of Older People in Organizing and Developing Services

Ageing does not make individuals similar. Accordingly, the needs of services vary individually. Cohen [22] uses the concept of "personalized ageing", referring to the fact that successful ageing is always connected to the person's uniquity. Furthermore, we need to consider the length of the later life: the period of several decades includes different phases, from the perspective of services, as well. This idea is manifested in the classification of ten key components of care for older people, by Oliver et al. [23]:

- Age well and stay well
- Live well with one or more long-term conditions
- Support for complex co-morbidities/frailty
- Accessible, effective support in crisis
- High-quality, person-centred acute care
- Good discharge planning and post-discharge support
- Effective rehabilitation and reablement
- Person-centred, dignified long-term care
- Support, control and choice at end of life

Thus, there exists no single status of older people from some certain perspective. Diverse needs of individual older people in manifold life situation and wellbeing and health status make the picture quite multifaceted and, consequently, complex.

When taking the perspective of service system, questions arise, e.g. about the place and way of care delivery and the financing of care. These questions are matter of sharing responsibility between older people, their families and networks, the community and the government. A broad discussion concerns the place of care and how to support older people's living in their own homes, as independently as possible and as long as possible [24].

Bartholomew et al. [25] have developed an evidence-based approach of intervention mapping for planning health promotion programs, being applicable also in planning of programming services for older people. The phases of planning are, according to Bartholomew et al. [25]:

- Needs assessment (context and setting)
- Matrices for performance and change objectives

– Selection of effective change methods and their practical applications linked to the change objectives
– Creation of the program and delivery

The approach needs to be founded in theory and evidence. Likewise Bucknall and Rycroft-Malone [26] emphasize the importance of evidence in program planning. They refer to the role of consumer in relation of health care: the consumers definitely are interested in the evidence of the best possible treatments and interventions (note the above-mentioned distinction between concepts of client, customer and consumer [17]). Accordingly, the service users need to be involved in the decisions about services and their delivery—and development, as well.

Vaajakallio and Mattelmäki [27] point out that one-size-fits-all services are not relevant any more. Accordingly, the older people need to be taken as active users or co-producers of the services. This means a challenge for service deliverers and a growing demand to remodify the roles of actors, both of the service deliverers and the users.

Thus, we need to identify the need of new kind of services for older persons and their families not only by asking about their needs before the use of services and asking for feedback afterwards but involving older people in the whole service planning, implementation and evaluation process, as described in our example. This idea of collaborative development has arisen during the last 10 years, connected with the idea of user-centred ***service design***. Participatory design and co-design are concepts related to this orientation, as well [28]. The service design orientation is based on the significance of the users' perspective in planning—or designing—services and service processes. As Vaajakallio and Mattelmäki [27] conclude, the fundament of the orientation is the idea that people have right to influence to the services that are influencing their lives.

According to Stickdorn and Schneider [29], service design emphasizes the end-user's experience as a starting point to planning and development. In service design, different methods and tools are used to produce information about the users' experiences. As Keinonen [28] points out, real people with their real conditions, provide the understanding needed in service development process.

Five principles of service design thinking, defined by Stickdorn and Schneider [29], describe the characteristics of service design process:

– User-centred: the users' experiences as a starting point
– Co-creative: the process involves all stakeholders
– Sequencing: the service process is analysed as a sequence of actions and moments
– Evidencing: services need to be presented as concrete acts and situations
– Holistic: not only the service but also the service environment matters

Stickdorn and Schneider [29] define service design as the following:

> "Service design helps to innovate (create new) or improve (existing) services to make them more useful, usable, desirable for clients and efficient as well as effective for organizations."

Keinonen [28] even suggests that service design could be one way of rethinking the solving of the dilemma between the growing demand of services, e.g. care for older people, and opposite directions in the supply of services.

User-centred orientation ensures that the services developed answer the users' needs. But there are also other arguments for implementing this orientation: the services become more acceptable and desirable, when older people have participated in both defining the needs and developing the services [28].

User-centred service design provides processes with tools for visualization, engaging older people and prototyping alternative services to be tested [27]. Thus, in the development of new services for older people, we need to adopt the idea of user-centred development from the service design orientation. If possible, it would be profitable to learn more about the philosophy and methods of service design and use the perspective in order to develop services answering the diverse needs of older people.

10.4.2 Evaluation of the Programs and Services

Evaluation is an essential part of service development and delivery process. Without evaluation, we lack systematic information needed to make decisions for further development. As a part of the role of organizer and developing the services with and for older people, you need to consider the significance of evaluation.

Evaluation is needed to provide program managers with information about the processes and outcomes of the programs, to be used in decision-making concerning the development of the services for older people and possibly new initiatives for further development. The target of the evaluation process may be either an entire program (e.g. service) or some specific components or aspects of a program. The targets can also be defined by whether the evaluation focuses on program implementation (the process of activities) or effectiveness (achievement of the purposes) or accountability (to stakeholders, like older people) [30].

Evaluation is an essential element in evidence-based policymaking and implemented in order to improve to quality, efficiency and effectiveness of interventions, like services for older people. In other words, evaluation produces information about whether the interventions or programs have succeeded to accomplish changes intended. That is to say, whether the services developed have developed in answering better the needs of older people, for example [31].

The following text concentrates on what a program organizer needs to know about the basis of program evaluation and its main perspectives when developing services for older people.

Stufflebeam and Coryn [32] define evaluation as a:

> "systematic process of delineating, obtaining, reporting, and applying descriptive and judgmental information about some object's merit, worth, probity, feasibility, safety, significance, and/or equity."

When working as an organizer, like the social worker in our example, a professional needs to recognize the role of evaluation as essential for developing services for older people and being accountable for the processes. It is also a question of professional responsibility to seek for evidence-based information and decision-making [33].

The dimensions of evaluation can be defined from different basis. First, we should make a choice, whether we focus on evaluating the process or the outcomes of a service development process.

Process evaluation concentrates, as the concept already reveals, on the process and is conducted simultaneously with the process, e.g. developing the services for older people. There is a perspective of process development built in the process evaluation schema: Evaluation is meant to support the professionals to gain systematically produced and justifiable understanding of the relevance and significance of the operations and interventions implemented. This understanding should help them to make decisions about forthcoming operations and interventions and thus redirect the process if needed in order to achieve the goals set for the process. Process evaluation can also be called implementation evaluation of formative evaluation [31, 34].

Outcome evaluation is targeted at the outcomes of the process, like the service being developed. It takes places in the end of the period chosen to be evaluated. The goal of this type of evaluation is to assess the impact of the development process. Consequently, the term ***impact evaluation*** can be used, as well as the term of summative evaluation. Impact evaluation belongs to the framework of evidence-based policymaking. Impact evaluation focuses on identifying the changes, which are generated by the program, and thus results instead of other factors. For example, impact evaluation can be used in evaluating the result of a service development process: What has been achieved, and what kind of service for older people can be seen as a result of the process [30, 31, 35]?

Frequently there is a demand to evaluate the economic aspects of the programs or projects, in order to identify the most effective ways of implementing a service development process [36]. The information about economical evaluation is often needed to gain legitimation to continuation of the program. When considering evaluation of the economic aspects of the program, the focus can be either on ***cost-benefit evaluation or cost-effectiveness evaluation***. In cost-benefit evaluation, the total expected costs of a service development process are compared with the benefits obtained by older people or society. In other words, we count the economic resources spent in the implementation of a program and find out what kind of benefits the implementation has produced and compare these things with each other. All the costs and benefits are quantified. If we evaluate in which scale the program has met its objectives and then compare these results to the costs of the implementation of a program, we call the method cost-effectiveness evaluation [30, 31].

According to the position of the evaluating subject, two different approaches can be distinguished. Either program managers or other actors involved in the program can conduct evaluation, or it can be conducted by some expert who is independent of the program and the organization implementing the program can conduct it.

The first approach, ***internal evaluation***, enables the evaluating subjects to more profound understanding of the factors influencing the solutions made during the process. On the other hand, there may appear risks in the reliability of the evaluation, when the evaluators are personally involved in the program and/or the organization implementing the program. When choosing ***external evaluation***, the evaluation can be expected to be more objective, but at the same time, there is a risk of missing some essential understanding of some influential factors behind the solutions made during the process [30, 32, 34].

As an application of internal evaluation, there is a certain perspective in evaluation that is ***self-evaluation.*** When internal evaluation is based on the work of actors working in the organization where evaluation is implemented, in self-evaluation, it is precisely the actors of the process who are subjects also in the evaluation process. When thinking about self-evaluation, it easily seems to be self-evident, who are the actors. But this is an issue to be considered: who actually are the actors in self-evaluation? The actors are responsible for the target of evaluation, self-evidently, but who else; service-users like older people, their families and other stakeholders etc. This definition depends on how we see the actors and partners in the service development and delivery processes.

In general, the evaluation perspectives are developing in the direction of ***participatory and co-productive approaches*** [37]. This is compatible with the service development and delivery orientations implemented by methods of co-development and service design.

Steps in evaluation practice can be described in the following way [38]:

1. The identification and engagement of the stakeholders and older people as the primary ones. Both those affected by the program and those who are involved in the program or going to use the results of evaluation.
2. Program description. Meaning information about the expected results, activities, resources, process and context are defined.
3. Designing the evaluation. About this phase, some further description is offered in the next chapter.
4. Gathering credible evidence. This phase focuses on the indicators and sources of information and the character of evidence.
5. Justifying conclusions and recommendations. It needs to be based on the fourth phase.
6. Ensuring the use of results. This is very important phase in striving for sustainability in evidence-based practice and evaluation [39].

When it comes to ***designing program evaluation***, Innes and McCabe [40] provide a useful composition of questions important to consider when planning an evaluation process:

– What do you want to evaluate?
– Why are you undertaking the evaluation?
– Who is funding the evaluation?

– How do you intend to evaluate?
– Who will interpret the findings?
– How will findings be verified?
– How will the findings be used?
– What are the outcomes of evaluation for you or your organization?
– Who will benefit from the evaluation process?

As well as planning a research process, defining the purpose and goals for evaluation is of major importance. After defining these starting points, it is possible to proceed to plan the methods and use of the results of the evaluation process.

Jordan [41] introduces Logical modelling—framework, which is developed to systematize design of program evaluations. Logical modelling is a useful help in planning an evaluation process and defining its goals. Jordan [41] defines six steps in logical modelling process:

1. Gather and absorb relevant program information from documents and people.
2. Describe the desired outcome space and program's role in that space.
3. Define specific success criteria for program outcomes and the target audiences.
4. For each criterion, determine program and non-program factors necessary for success.
5. Define activities, outputs and resources needed and iterate.
6. Summarize in a diagram or an organized table with supporting text.

To conclude, Beaufort [30] emphasizes the judgement process of evaluation. It is important when considering the significance of evaluation in the evidence-based program development procedure. It is also important to notice the clear distinction between interpretation of findings and making judgements. This perspective makes the connection between evaluation and research practice evident.

10.5 Assignments

1. Make a care plan to your client (older person) that utilizes Lloyd's person-centred and empowering care planning model [6].
2. Consider how you can develop the quality of care for the older people, taking into account the international and national quality recommendations that guide your work.
3. Consider, from your own profession's viewpoint, practical examples of ways how you can take the older people's needs and opinions into account when developing services.
4. In this chapter, the different dimensions of program evaluation have been introduced. Make a mind map, or other conceptual models, about the key concepts in evaluation, for your further use in service development process you will be participating when working as an organizer.

References

1. Hong CS, Allison LS, Ferris TG. Caring for high-need, high-cost patients: what makes for a successful care management program? Issue Brief (Commonw Fund). 2014;19(1):1–19.
2. Gray J. Care vs. case management: 7 structural differences. Healthcare Intelligence Network. 2013. http://hin.com/blog/2013/12/12/care-vs-case-management-7-structural-differences/. Accessed 12 Sept 2017.
3. National Care Planning Council. About what a care manager does. https://www.longtermcare-link.net/about_care_manager.htm. Accessed 14 Sept 2017.
4. Ross S, Curry N, Goodwin N. Case management. What it is and how it can best be implemented. The King's Fund. 2011. https://www.kingsfund.org.uk/sites/default/files/Case-Management-paper-The-Kings-Fund-Paper-November-2011_0.pdf. Accessed 14 Sept 2017.
5. Morgan S, Yoder LH. A concept analysis of person-centered care. J Holist Nurs. 2012;1:6–15. https://doi.org/10.1177/0898010111412189.
6. Lloyd M. A practical guide to care planning in health and social care. Glasgow: Bell and Bain Ltd; 2010.
7. Dziegielewski SF. The changing face of health social work: professional practice in managed behavioural healthcare. 2nd ed. New York: Springer; 2004.
8. Geron SM, Little FC. Standardized geriatric assessment in social work practice with older adults. In: Berkman B, Harootyan L, editors. Social work and health care in an ageing society. Education, policy, practice and research. New York: Springer; 2003. p. 269–96.
9. Hänninen K. Palveluohjaus. Asiakaslähtöistä täsmäpalvelua vauvasta vaariin. Stakesin raportteja. Helsinki: Valopaino Oy; 2007. p. 20.
10. National Committee for Quality Assurance. The essential guide to health care quality. 2007. https://www.ncqa.org/Portals/0/Publications/Resource%20Library/NCQA_Primer_web.pdf. Accessed 9 Oct 2017.
11. Counte MA. Health care quality assessment. 2007. https://www.cugh.org/sites/default/files/94_Health_Care_Quality_Assessment_FINAL_0.pdf. Accessed 7 Sept 2017.
12. World Health Organization (WHO). Quality of Care. A process for making strategic choices in health systems. France; 2006.
13. Higashi T, Shekelle PG, Solomon DH, Knight EL, Roth C, Chang JT, Kamberg CJ, MacLean CH, Young RT, Adams J, Reuben DB, Avorn J, Wenger NS. The quality of pharmacological care for vulnerable older patients. Ann Intern Med. 2004;140:714–20.
14. Tarrant A. Supporting people: older people's services. Welsh Government Social Research; 2016. p. 8. http://gov.wales/docs/caecd/research/2016/160216-supporting-people-older-peoples-services-final-en.pdf. Accessed 10 Sept 2017.
15. STM. Quality recommendation to guarantee a good quality of life and improved services for older persons 2017–2019. Publications of the Ministry of Social Affairs and Health; 2017. p. 6 (in Finnish).
16. The Health Foundation. Quality improvement made simple. What everyone should know about health care quality improvement. 2013. http://www.health.org.uk/sites/health/files/QualityImprovementMadeSimple.pdf. Accessed 11 Sept 2017.
17. Wanna J. Policy in action: the challenge of service delivery. Sydney: University of NSW Press; 2008.
18. Humphries R. Health and social care for older people: progress, problems and priorities. In: Burke S, editor. Older people as voters, citizens and changemakers. Bingley: Emerald Group Publishing Limited; 2015. p. 27–31.
19. Ashcroft J. Grey pride: priorities for a minister for older people. In: Burke S, editor. Older people as voters, citizens and changemakers. Bingley: Emerald Group Publishing Limited; 2015. p. 62–4.
20. Goldberg WG, Tully CT. The structural approach to direct practice in social work: a social constructionist perspective. New York: Columbia University Press; 2006.
21. Weinberg M. Paradoxes in social work practice: mitigating ethical trespass. Abingdon, Oxon: Routledge; 2016.

22. Cohen P. Personalized aging: one size doesn't fit all. In: Irving P, editor. The upside of aging: how long life is changing the world of health, work, innovation, policy and purpose. Hoboken: Wiley, Incorporated; 2014. p. 19–34.
23. Oliver D, Foot C, Humphries R. Making our health and care systems fit for an ageing population. London: The King's Fund; 2014. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf. Accessed 26 Sept 2017.
24. Morgan LA. Ageing, society, and the life course. New York: Springer; 2006.
25. Bartholomew ELK, Markham CM, Ruiter RAC, Fernández ME, Kok G, Parcel GS. Planning health promotion programs: an intervention mapping approach. 2016. Jossey-Bass, A Wiley Brand. Printed in the United States of America.
26. Bucknall T, Rycroft-Malone J. Evidence-based practice. Doing the right thing for patients. In: Rycroft-Malone J, Bucknall T, editors. Models and frameworks for implementing evidence-based practice: linking evidence to action. Somerset: Wiley; 2013. p. 1–21.
27. Vaajakallio K, Mattelmäki T. Co-design with public sector. In: Keinonen T, Vaajakallio K, Honkonen J, editors. Designing for wellbeing. Aalto University Publication Series 5/2013. Helsinki: School of Arts, Design and Architecture, Aalto Art Books; 2013. p. 57–71. https://shop.aalto.fi/media/attachments/9bad8/Designing%20for%20wellbeing-2.pdf. Accessed 21 Sept 2017.
28. Keinonen T. Design, wellbeing and design for wellbeing. In: Keinonen T, Vaajakallio K, Honkonen J, editors. Designing for wellbeing. Aalto University Publication Series 5/2013. Helsinki: School of Arts, Design and Architecture, Aalto Art Books; 2013. p. 8–24. https://shop.aalto.fi/media/attachments/9bad8/Designing%20for%20wellbeing-2.pdf. Accessed 25 Sept 2017.
29. Stickdorn M, Schneider J. This is service design thinking. Basics, tools, cases. BIS Publishers; 2011. https://ec-lcc-nnu.wikispaces.com/file/view/Service+Design+Thinking+Book.pdf. Accessed 27 Sept 2017.
30. Beaufort BL Jr. Health program management. From development through evaluation. Wiley; 2014.
31. Gertler P, Martinez S, Premand P. Impact evaluation in practice. World Bank Publications; 2010.
32. Stufflebeam DL, Coryn CLS. Evaluation theory, models, and applications. Wiley, Incorporated; 2014.
33. Lishman J. Introduction. In: Shaw I, Lishman J, editors. Evaluation and social work practice. London: Sage; 1999. p. 1–13.
34. Mertens DM, Wilson AT. Program evaluation theory and practice: a comprehensive guide. Guilford Publications; 2012.
35. Khandker S, Koolwal GB, Samad H. Handbook on impact evaluation: quantitative methods and practices. World Bank Publications; 2009.
36. Raine R, Reeves B. Health care evaluation. McGraw-Hill Education; 2005.
37. Greener I, Greve B. Evidence and evaluation in social policy. Wiley, Incorporated; 2013.
38. Centers for Disease Control and Prevention. Introduction to program evaluation for public health programs: a self-study guide. Atlanta: Centers for Disease Control and Prevention, Office of Strategy and Innovation; 2011. https://www.cdc.gov/eval/guide/cdcevalmanual.pdf. Accessed 28 Sept 2017.
39. Centers for Disease Control and Prevention (CDC). Framework for Program Evaluation in Public Health. Continuing Education Examination. September 17, 1999, vol. 48, No. RR-11. Recommendations and Reports. https://www.cdc.gov/mmwr/PDF/rr/rr4811.pdf. Accessed 3 Oct 2017.
40. Innes A, McCabe L. Evaluation in dementia care. Jessica Kingsley Publishers; 2006.
41. Jordan GB. Logic modeling: a tool for designing program evaluations. In: Link AN, Vonortas NS, editors. Handbook on the theory and practice of program evaluation. Northampton: Edward Elgar Publishing; 2013. p. 143–65.

Health and Welfare Advocate

11

Irma Mikkonen

Learning Objectives

You

- Understand the importance of acting as a health and welfare advocate for older population.
- Are able to define the role of health and welfare advocate from the viewpoint of your profession.
- Understand and value the advocacy role of your profession in health and well-being promotion.
- Are aware of the requirements of working in the role of health and welfare advocate.
- Identify effective health promotion and disease prevention policies and strategies.
- Are able to choose the appropriate approaches and methods to health promotion and disease prevention.

11.1 Introduction

One role of social and healthcare professionals, when working with older people is that of health and welfare advocate. As has been stated in the previous chapters, the aim in societies is that older population is able to live healthy and independent life as long as possible. However, in their lives, many older people encounter, for example, physical, psychological, social and environmental challenges which they cannot manage on their own. Consequently, social and healthcare professionals working with older people often encounter situations where they are expected or there is a

I. Mikkonen
School of Health, Savonia University of Applied Sciences, Kuopio, Finland

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_11

need to act in a role of advocate related to health and well-being of older people. Thus, it is necessary that all social- and healthcare professionals are aware of the development of the society and health and social care systems in order to be able to act as health and welfare advocates within the older people in societies.

Example

Anna is a Finnish nurse who has 15 years' work experience as a registered nurse. She has been working now for 3 years in case management in primary healthcare in a small town in Finland. In Finland, the case management system is mainly focused on persons with long-term illnesses, and the goal is to manage well the care of people with long-term diseases as well as have an appropriate work allocation within the professional team in charge of patients with long-term diseases. The key idea is to help clients who has multiple long-term conditions and who use a lot of healthcare services. Often these patients need support in the management of their lives as well as support for self-care. At the beginning of professional-patient relationship, the care and service plan will be designed, and the case manager will be in charge of the patient. The care and service plan includes both the care and social services.

So, Anna is working as a case manager. One of her patients is Maria, a 76-year-old lady who lives on her own in a housing estate 5 km from the centre of the town. Maria has high blood pressure and pain in several joints. She has medication for high cholesterol. Moreover, she suffers from occasional depression. The doctor recommended that it would be a good idea for Maria to meet Anna, the case manager.

At the first appointment, Anna starts to discuss the life situation of Maria with her. During the first appointment, she starts the needs assessment, and a second appointment will be after a month. That appointment will be for planning the care and service plan. In the needs assessment, Anna is in dialogue with Maria. She lives alone in a flat in a block of flats. The house has a lift, and it is necessary because Maria lives on the third floor and could not reach it through stairs. She has a son and three grandchildren who live 1 km from her, but she meets them rarely; she says "I won't barge in their life, young people have the life of their own". She doesn't have many relatives; sometimes she has phone contact with her cousin. She experiences that it is difficult to get friends in her age. Maria enjoys handcrafts such as weaving, but she has not found a hobby group for seniors, and she also feels that that the town is restless and unsafe during evenings when it is dark. In dialogue, Anna finds that one of Maria's main problems is pain which also leads to sleeplessness. Anna checks Maria's medication and updates her recipes. She also discusses if the time of medications needs adjustment.

Anna gives her phone number to Maria and emphasises that she can phone her whenever she needs support or information. She asks if Maria has heard of the group called "Empowerment for your everyday life". She also tells that there is an online health check programme available as well as coaching and rehabilitation programme. Maria says that these sound interesting though there are transportation problems. Anna also promises that she will sort out if there are any senior handicraft hobby groups in the neighbourhood. Anna will also consider if Maria could

benefit a consultation with a physiotherapist; Maria's occasional hobby has been swimming, and because of pains, it would be important to have regular physical activity. Maybe the most important problem of Maria is loneliness. It is important to find means to widen her social contacts and relationships.

Before the next appointment, Anna makes a draft of care and service plan of Maria. She documents health and well-being problems and challenges and Maria's perception of her problems. A goal of the care will be documented: it is important to take into account the personal goals of Maria as well as the timetable. The implementation plan will be documented as well: who will do what and when. It is important to consider self-monitoring and instructions as well. In addition, monitoring, evaluation and support will be documented.

One of Anna's principles in her work as a case manager is to support an older person but to be careful not to do too much for the person. It is important to support the person's self-management and empower her. The patient is perceived as an active adult. The care and services are focused on health and welfare promotion and disease prevention as well as monitoring the care. In her work she emphasises collaboration and collaborative decision-making. Important partners in cooperation are social work, rehabilitation, services for older persons, oral care and patient organisations and associations as well as voluntary work. Anna experiences that recently there have been many technological advancements that have had impact on her work—these have changed her work as well as brought new requirements for competences. She perceives that it is easier to coordinate the care and services with the support of technology as well as create networks between different service providers over administrative organisations and even over the borders of the country. Anna experiences that her responsibility is to encourage patients, especially older people, to use new services according to their needs and skills. She feels that one of her tasks is to act as a health and well-being coach for older people.

In addition to the work with patients, Anna is active in her personal life as well. She is a member in a local Nurses Association Council. Moreover, she is active in local policy being a member of municipal council. Through these authorities she is able to have impact on decision-making related to health promotion decisions which she finds very important—she perceives that it is her duty to gather data and information from practice to decision-makers.

11.2 The Role of Health and Welfare Advocate

As a health and welfare advocate, professionals try to improve health and well-being of older people and their families or networks. They focus on individuals, groups, communities or populations they serve in order to determine needs and develop partnerships. They speak on behalf of older people when needed and support efforts to effect change. This includes prevention, health promotion and health protection, whereby individuals and populations reach their full health potential without being disadvantaged by race, ethnicity, religion, gender, sexual orientation, age, social class, economic status or level of education. It also involves efforts to

change specific practices or policies on behalf of older people and to decrease the negative effects of the ageing process by provision of client education and promotion of active ageing.

As a health and welfare advocate, health and social care professionals use their expertise and influence to assist older people, and their families to navigate the health and social care systems and to find appropriate resources in a timely manner.

Advocacy requires partners and networks. Professionals work together with older people, their families and support networks, community agencies and other organisations to positively influence determinants of health and well-being. Professionals must know how to reach target groups and should be able to use social media for this when appropriate.

Competences for advocacy are related to health promotion and illness prevention and focus on the individual's social map and networks.

Health and social care professionals working with older people often encounter situations where they are expected or there is a need to act in a role of advocate. What does it mean to be an advocate for an older person? What does advocacy mean? Advocacy is usually employed by someone powerful on behalf of someone who has no power. In situations of vulnerability, powerlessness or being involved in difficult circumstances, the individual needs to be advocated. At the background of the advocacy role, there is an ethical obligation to advocate for clients, in this case older persons. There have been and still exist different kinds of viewpoints related to advocacy role. Advocacy may be defined and take place on different levels from ethical and legal frameworks to philosophical considerations [1]. Moreover, WHO has defined advocacy to be one of the three key strategies for health promotion. Advocacy may take many forms: it can be, for example, political influencing or using mass media and social media. WHO also emphasises that social and health professionals are responsible for acting as advocates for health and well-being at all levels in society [2, 3]. Two other strategies defined in the Ottawa Charter are enabling and mediating. As a professional you use also these strategies. Enabling in health and well-being promotion means focusing on equity. It is important to ensure equal opportunities and resources to all people. It is important to support older people to self-management. At the background of the third strategy, mediating, is the idea that health of people cannot be ensured by the health sector alone. Instead health and well-being promotion is a well-coordinated collaboration within health, social and economic sectors, both public and non-governmental organisations, local authorities, media, etc. All people are included: individuals, families and communities. The Ottawa Charter emphasises the role of professionals in mediating between different groups and organisations. It is also important that you understand, when working as an advocate for older persons related to health and well-being promotion, that all interventions should be adapted to the local needs and possibilities of individual countries. Moreover, you always have to take into account social and cultural differences [3].

From the practice perspective, the focus is on professional actions, such as defending the older person's rights, supporting and helping the older person to find needed healthcare and social services, monitoring the quality of care and services

and serving as a liaison between the older person and the healthcare and social services. Generally, advocacy aims to promote or reinforce a change in one's life or environment, in programme or service and in policy or legislation [1]. Previously, health advocacy was often perceived as an independent or individual activity of a professional; however, recently there are studies in which health advocacy is seen as a collective activity. The viewpoints of collective advocacy vary from individual to community level, for example, collective responsibility when advocating for the rights and needs of individual persons as well as collaborative action as a means of addressing political and social change [2].

What does it mean to act as a health and welfare advocate for an older adult? Usually the aim in health behaviour is that a person is able for self-advocacy. It means that an older adult takes an active role and takes control of her/his life. However when ageing, a person is not always able to manage on her own. Consequently, many old persons require supportive advocacy. With support of professionals as advocates, the older population will have their voices heard and their health and well-being needs met. Consequently, health and well-being promotion and disease prevention interventions enable older people to maintain their independence. There is also the viewpoint of policy which aims to reduce use of healthcare and social services. In addition, it is good to take into account that health and well-being promotion of older people to some extent differs from that aimed for younger people. This is due to older people's afflictions related to old age or often declined health; they are more likely to be suffering from chronic diseases and multimorbidities, also functional capacity often deteriorates along with ageing [4].

For the role of health and welfare advocate, there are two competences. The first competence is about collective prevention and health promotion, and the second one concerns social map and social networking.

11.3 Competence: Collective Prevention and Health Promotion

Today fostering a culture which enables older adults to age healthily is a priority for most societies. To promote healthy ageing and to be able to act as a health and welfare advocate for older population, professionals require evidence-based knowledge that they can translate into practice. It is important to understand that health promotion and disease prevention take place in several levels. Consequently, many types of approaches and strategies are needed. These approaches include different kinds of counselling and education programmes as well as financial inducements. There are different sizes of projects and procedures as well as funding coming from a variety of sources (national, EU, organisations, associations) [5]. In addition, it is important to remember that older people are not a homogenous group of people; they are as much a heterogeneous group as persons from any other age group. Consequently, it is important that while acting as health and welfare advocates, social and healthcare professionals are able to give an individualised response and very tailored advice to older persons, taking into account their specific needs and wishes. Thus, multiple

approaches, strategies and interventions are needed to meet the needs of older people. It is also important to be aware that different approaches and methods are needed with different older persons. Moreover, it is important that health and well-being promotion is evidence-based. This means that interventions are based on research and most effective approaches are used. However, in addition to evidence-based knowledge, the expertise of professionals is necessary [6]. On the whole, it depends on your profession and expertise which approaches and methods will be chosen and used.

11.3.1 Competence Description

Advocate for health with, and on behalf of, older people and their families, communities and organisations, to improve health and well-being and build capacity for health promotion

Performance Indicators

- Use advocacy strategies and techniques that reflect health promotion principles.
- Engage with and influence key stakeholders to develop and sustain health promotion actions.
- Raise awareness of and influence public opinion regarding health and well-being issues which affect older people.
- Advocate to older persons, their families and their caregivers regarding interventions and behaviours.
- Promote physical and mental well-being, social participation and safe and comfortable housing and living conditions.
- Use educational strategies to provide older persons and their families with information related to wellness and disease management (e.g. Alzheimer's disease, end-of-life care).
- Use social media for the purpose of promoting self-reliance, co-reliance and quality of life of older people.

If you look at the performance indicators related to acting as an older person's advocate in promoting her/his health and well-being, you will notice that you have to be able to possess skills to work within older persons themselves as well as with their families, caregivers and friends. In addition, you need skills to influence stakeholders, policy-makers and public opinion. Moreover, it is important that you are aware of a variety of health and well-being promotion and disease prevention approaches, methods and interventions including using opportunities that social media provides.

Let us start by considering the concepts of health promotion and disease prevention. Social and healthcare professionals, in order to be able to work efficiently as health and welfare advocates for older adults, have to understand the wide concepts of health promotion and disease prevention. The concepts are very close to each other; however, they can be understood separately as was discussed above in Sect. 5.1.

Health and well-being promotion aims to enable people to address health problems and lead healthier lives as well as maintain their independence as much as

possible. The Ottawa Charter [3] specifies the five main action types for health promotion: healthy public policies, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services.

Disease prevention is often perceived as a complementary term to health promotion; however, its definitions focus on the context of avoiding diseases or their consequences, and not on the concept of health. As discussed in Chap. 5 (see Sect. 5.1), usually disease prevention is divided into three different approaches: primary disease prevention which is aimed at preventing the onset of disease, secondary prevention which is meant to control the disease before it manifests clinically, and tertiary prevention which is focused on decreasing the impact of a disease on the patient's life. All these contribute to reducing the risk of disabilities.

11.3.2 Advocacy on Different Levels of Health and Well-Being Promotion and Disease Prevention

In previous chapters [Part I], healthy ageing was discussed; it can be said that the aim of health and well-being promotion and disease prevention of older people is healthy ageing. Thus many aspects of healthy ageing are related to health promotion and disease prevention. Therefore the dimensions of healthy ageing defined by the WHO are important when defining the role of social- and healthcare professional working as a health and welfare advocate for an older person. WHO [7] listed the following dimensions for healthy ageing:

1. Meeting the needs and expectations which ageing population has related to better health promotion and services related to health and well-being as well as support for self-help
2. Acknowledgement of older people's right to the enjoyment of physical and mental health
3. Taking into account evidence about shortcomings related to the quality and access to the services
4. Being one of the key contributors to enhance equity in health and well-being between countries as well as between socioeconomic groups and genders
5. Interacting with policies of social protection to prevent the risk of poverty among older people (which still remains a risk in Europe)
6. Contributing to health and welfare systems supporting older people (especially higher age groups) to be active and fully integrated [7]

In the Health 2020 policy framework, it is strongly emphasised that good health cannot be seen as an outcome of one sector alone; it is necessary to combine all policy fields and all policy levels in order to achieve sustainable and equitable improvements in health. The policy framework suggests that it is necessary that policy-makers, health providers as well as members of the public change their mind-set from seeing health as combating illness to one promoting health and well-being. It is emphasised that this is not possible without political support, administrative and technical innovation as well as financial resources [8]. It is necessary that social and health sector collaborates with other fields in order to achieve better

health and health equity for population [9]. Consequently, also social and healthcare professionals while acting as health and welfare advocates for older people have to work both on micro-level, as an individual older person's advocate, and on macro-level, for example, by influencing decision-making on communities and societies. You as a social and healthcare professional have an expert role of your own profession; however, in acting as a health and welfare advocate, it is necessary to collaborate besides with other health and social care professionals also with representatives of other fields and disciplines.

When working as a health and welfare advocate, a professional while working in different levels of advocacy may benefit of using the abovementioned dimensions of healthy ageing as well as applying the principles of the Health 2020 policy framework [8] in her/his actions. In brief these principles are participatory approaches, empowerment, equity, gender perspective and inter-sectoral action. In the following these principles will be discussed more in detail and from the viewpoint of the professional role of advocacy.

Participatory approaches mean that older persons will be involved in decision-making in policies as well as evaluation processes. In addition, it is important to support older persons to be involved in all decision-making concerning their life and daily activities. It is suggested that in order to support health and well-being of older people, social and healthcare professionals should not only focus on reducing risk factors to create a safe environment but also on the quality of life and well-being of an older person. It is important to have a dialogue between the professional and the older person in order for the professional to understand the way older people endow meaning to the circumstances they find themselves in, their perceived feelings of control and their motivation to comprehend and manage events. It is also emphasised that health promotion for older adults should focus on facilitating and maintaining relationships with their relatives and friends. In order to support the older people's life satisfaction, it is important that they are included and supported in conventional daily activities according to their abilities [10]. Consequently, it is important for you as a professional to understand the concept of shared decision-making. It is a process in which social and healthcare professionals work together with the client to make evidence-based decisions related to care and services taking into account possible risks and expected outcomes with client preferences and values. So, in brief, shared decision-making is helping a person make an informed decision. Moreover, it is also recognised that interprofessional collaboration is an important part of shared decision-making, especially for those persons who need a lot of social and healthcare services, for example, very old people or those with long-term conditions or several diseases [11]. However, the process is not always simple, especially with older persons where professionals and clients have different levels of knowledge and experience.

The older person cannot effectively participate in shared decision-making if she/he does not understand the current condition of her/his own, all of the care and support options and their effects. So, it is very important that you as an advocate for older persons are aware of the support and services available for older people because navigating health and social care systems is particularly difficult for older people with complex health needs [11].

Moreover, it is necessary that you possess competences to understand what are the older person's wishes related to her/his care and support from professionals. In addition, it is important to remember that there are cultural differences in the expected roles of the professional and the older person. An important aspect with shared decision-making with older adults is to engage family members and caregivers according to the wishes of the older person. Thus, it is important that you as a social and healthcare professional possess good communication and education skills and are able to involve older people in decision-making that concerns their health and well-being. It is important for you to understand that shared decision-making is not something extra; instead, it is something that is an essential part of professional action [12]. Shared decision-making is focusing on the things that are important to the older person—it is respecting the older person's opinions and views.

Achieving shared decision-making requires paying attention to those situations where reasonable options exist and where the client's preferences will be relevant. For the purposes of learning shared decision-making, a model has been developed called the three-talk model. The three-talk model describes three broad steps that form the core elements of shared decision-making. The stages in Elwyn's model [13] are the following: introducing choice (talk that there is a choice), describing options (talk about the options) and helping the person to think about preferences and make decisions (talk about the patient's preferences and coming to a decision).

Going back to the example at the beginning of the chapter, you can notice that Anna perceives it is important to involve Maria, her client, in decision-making concerning her well-being. In addition, Anna is active in contributing to decision-making in policies through Nurses Association as well as municipal council.

Empowerment is important both at the personal and community levels. WHO [7] suggests that involving older population in community action, voluntary initiatives and informal care is an important factor in successful healthy ageing strategies. Empowerment of an older person means supporting her/him to make decisions and have control over her/his life. Involving older people means supporting them to be responsible for their own health, social contacts and their life as a whole. There is evidence that health promotion programmes based on principles of engagement and empowerment are efficient [7]. Traditionally health promotion and disease prevention interventions focused on deficits or diseases ignoring the strengths and experiences of the person. Empowering-based interventions emphasise taking into account the experience and strengths of the individual in order to focus on the issues that are working well instead of deficits or problems. When the focus is on empowering an older person, it is important that the viewpoint of older person is emphasised: the task of the professional is to focus on the individual older person's needs and interests and support the older person to identify his/her own goals related to his/her life and well-being. Going back to the example, one of the aims in Anna's work is to support the empowerment of her clients. This comes true, for example, when she discusses the goals of the care with Maria and is emphasising Maria's viewpoint as well as her personal goals. Thus, Anna supports Maria, however being careful not to

do too much for her. It is important to support the person's self-management and empower her.

Equity is emphasised with attention to vulnerable or disadvantaged groups of older people. According to WHO [7], inequalities accumulate over the life-course. Healthy ageing policies therefore can contribute to closing the gaps in health inequalities.

It is also important to take into account gender perspective: there are differences between men and women in the roles and experiences during old age. According to WHO [7], women are potentially more affected by living alone and are socio-economically disadvantaged in old age, and they spend on average a larger part of their life with some form of functional limitations. At the same time, they constitute the vast majority of both formal and informal caregivers, as well as being clearly over-represented as care recipients. These and other aspects call for a gender perspective on healthy ageing policies throughout all strategic areas and priority interventions.

The need for inter-sectoral action is evident. According to WHO [7], both the social determinants of healthy ageing and the responsibility for care and services of older people as well as strategy development and leadership on healthy ageing are usually joint responsibilities between health ministries and other government departments and typically belong to different levels of government. Moreover, they involve other stakeholders, private sector, civil society and voluntary action at various levels. The concept of resilience is said to be a key factor in promoting health and well-being. Thus it is important to assess the health effects of continuously changing environment (technology, urbanisation, energy production, etc.). Above it was mentioned that interdisciplinary and inter-sectoral collaboration is necessary in health promotion and disease prevention. Thus, collaboration between the environmental and health sectors is necessary in order to protect human health from the risks of a hazardous environment and to create health-promoting social and physical settings [7]. Referring back to the example, Anna's experience is that new and developing technology supports her actions in coordinating the care and services—it enhances the opportunities to create connections and networks between service providers and representatives of different fields.

11.3.3 Approaches and Interventions in Advocating Older Persons

For any social and healthcare professional, in order to be able to act as an advocate for older persons, it is important to be familiar with different approaches and services that support older people's well-being and prevent diseases. Above (see Sect. 5.1) preventive approaches in older people's services presented by Allen and Glasby [14] were discussed.

Professionals may use a variety of advocacy strategies and techniques while advocating older adults. These approaches vary from advocating an older individual to the level of system change. Also the focus of advocacy may depend on your profession, each professions use their special expertise in advocacy interventions. Here, an example of a primary care health promotion tool for older people is presented:

the Health Risk Appraisal for Older people (HRAO). This lifestyle risk assessment tool provides individualised written feedback to clients/patients and professionals. There are also studies that it has the potential to reduce mortality when followed up by health advice in primary care [15]. The HRAO has been complemented into Multidimensional Risk Appraisal for Older people (MRAO) to include social, economic and environmental factors. These tools provide with information about health and well-being risk behaviours both at individual and population levels. The tool consists of a postal questionnaire (determinants of health, lifestyle, social and environment), software system enabling personal feedback report (including health and welfare advice) and follow-up of individuals in need of professional support. Thus, older people can be supported to change their health risk and live healthy life [16–19].

11.4 Competence: Social Map and Social Networks

Social and healthcare professionals are well positioned in informing and influencing health and social policy. It is important that social and healthcare professionals are active in supporting to create policies that result in better health and well-being for older adults. Nurses and other social and healthcare professionals are able to disseminate and share their special knowledge in their communities, nationally as well as internationally, for example, in professional and patient associations and different boards [20].

According to the World Health Organization [8], a strategic focus on healthy living for both young and older people is consistently valuable. A broad range of stakeholders can contribute to programmes that support people's health and well-being, including intergenerational activities. For older people, active and healthy ageing initiatives can benefit health and quality of life. WHO emphasises that all countries have to adapt to changing demography and patterns of disease, especially mental health challenges, chronic diseases and conditions related to ageing [8]. According to Fagerström [10], health promotion for older people should focus on helping an older person to maintain his/her important and close relationships as well as supporting older person's need to be needed. It is emphasised that older people should be included in conventional daily activities in spite of their functional or other health problems. This will lead to older person's enhanced life satisfaction. Moreover, according to the study of Fagerström [10], health promotion taking place in groups is recommendable because this enables close relationships to be formed within the participating older persons.

11.4.1 Competence Description

Access and share information with older persons, their families and their caregivers, regarding the social map, healthcare benefits, social support and public programmes.

Performance Indicators

- Increase transparency and strengthen the informal social networks around older persons and their families.
- Initiate the formation of informal social networks for older persons in situations where these are lacking.
- Providing insight into all the agencies, organisations and facilities aimed at promoting self-reliance, co-reliance and quality of life of older people and also enabling cooperation with those authorities.
- Provide information to older people and their families/caregivers about the continuum of long-term care services.
- Advocate and organise with service providers, community organisations, policymakers and the public to meet the needs and issues of the growing ageing population.

If you look at the performance indicators related to acting as an older person's advocate related to social map and social networks, you will find that you should again be able to work on different levels; it is important that an older person is not lonely; she/he needs the similar social contacts as people in any age; thus, your task as an advocate is to develop and enhance social networks of an older person and family when need arises. Moreover, it is important that an older person is aware of support, care and services available in her/his community. Boeckxstaens and colleagues emphasise that it is important that social and healthcare professionals are proactive. They have to be active in health and well-being promotion activities within older adults [21]. One aspect in advocacy is collaboration within different service providers and organisations; sometimes the need arises for you to act as a liaison between different professionals, organisations and volunteers. Through advocacy, social and healthcare professionals can have influence on raising awareness of important viewpoints as well as leading to changes when needed.

So, when you are acting as a health and welfare advocate for an older person, you are working independently using expertise of your own profession for an older person. Moreover, there may be a lot of challenges in older people's lives which need collaboration within other social and healthcare professionals as well as with volunteers and voluntary associations. In addition, collaboration with other fields is needed. Consequently, it is important that you have knowledge about health and well-being promotion as well as skills for communication and collaboration.

Depending on your profession, job and work environment, the focus, content and interventions of health and welfare advocacy are different. If you, for example, are working in a hospital ward, health and welfare interventions may be linked to hands-on care; when you are supporting an older person in his/her daily activities, you are able to support her/him in healthy choices related to his/her everyday life. If you are working in a community, during home visits, you may plan adjustments with other professionals for an older person's home in order to improve the safety of home environment as well as encourage the older person to engage with family and friends and be involved in various activities. Moreover, with older people quite often, it is necessary to address practical challenges related to participation, such as cost,

transport and communication. Nowadays, it is also necessary to support older people to benefit opportunities provided by social media. If you work in a health and welfare project, you may be in contact with administrators in community-based organisations and plan awareness-raising campaigns by using social media. Thus, through advocacy, you will work on different levels varying from an individual older person to community level on raising awareness of important viewpoints.

11.5 Assignments

1. Consider examples from your own profession's viewpoint, how you take into account the dimensions for healthy ageing [5] while you are acting as a health and welfare advocate for an older person.
2. In this chapter, the Health Risk Appraisal for Older people (HRAO) and expanded Multidimensional Risk Appraisal for Older people (MRAO) were presented. Find out if these tools are used in your country/region. If they are used, consider how these are used and what are the benefits. If these tools are not used in your country/region, find out what kinds of tools are used in order to assess old people's lifestyle risks.
3. First, learn more about Elwyn's [13] model of shared decision-making. Second, use this three-talk model in your work when you have an opportunity to health and well-being promotion with an older person. After the meeting, assess how you succeeded to use the model. You can also ask your colleague to monitor and assess your action.
4. Consider, from your own profession's viewpoint, the most important approaches and interventions to support older people's social networks.

References

1. Negarandeh R, Oskouie F, Ahmadi F, Nikravesh M, Hallberg IR. Patient advocacy: barriers and facilitators. BMC Nurs. 2006;5:3. https://doi.org/10.1186/1472-6955-5-3.
2. World Health Organization. Health Promotion Glossary. 1998. http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf?ua=1. Accessed 15 Feb 2018.
3. World Health Organization (WHO). The Ottawa Charter for Health Promotion, First International Conference on Health Promotion, Ottawa; 1986. http://www.euro.who.int/__data/assets/pdf_file/0004/129532/Ottawa_Charter.pdf?ua=1. Accessed 26 Aug 2017.
4. Hubinette M, Dobson S, Voyer S, Regehr G. 'We' not 'I': health advocacy is a team sport. Med Educ. 2014;48:295–901.
5. Golinowska S, Groot W, Baji P, Pavlova M. Health promotion targeting older people. BMC Health Serv Res. 2016;16:345–6. https://doi.org/10.1186/s12913-016-1514-3.
6. Smith BJ, Tangi KC, Nutbeam D. WHO Health Promotion Glossary: new terms. Health Promotion International Advance Access published September 7, 2006. https://doi.org/10.1093/heapro/dal033. http://www.who.int/healthpromotion/about/HP%20Glossay%20in%20HPI.pdf?ua=1. Accessed 15 Feb 2018.
7. World Health Organization Regional Office for Europe. Strategy and action plan for health ageing in Europe, 2012–2020. Regional Committee for Europe. Sixty-second session, Malta,

10–13 September 2012. http://www.euro.who.int/__data/assets/pdf_file/0008/175544/RC62wd10Rev1-Eng.pdf. Accessed 26 Aug 2017.
8. World Health Organization. Health 2020. A European policy framework and strategy for the 21st century. 2013. http://www.euro.who.int/__data/assets/pdf_file/0011/199532/Health2020-Long.pdf. Accessed 18 Sept 2017.
9. Leppo K, Ollila E, Peña S, Wismar M, Cook S, editors. Health in All Policies. Seizing opportunities, implementing policies. Helsinki: Ministry of Social Affairs and Health; 2013. http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/69920/URN_ISBN_978-952-00-3407-8.pdf?sequence=1. Accessed 8 Sept 2017.
10. Fagerström L. Positive life orientation—an inner health resource among older people. Scand J Caring Sci. 2010;24:349–56. https://doi.org/10.1111/j.1471-6712.2009.00728.x.
11. Bunn F, Goodman C, Manthorpe J, Durand M-A, Hodkinson I, Rait G, Millac P, Davies S, Russell B, Wilson P. Supporting shared decision-making for older people with multiple health and social care needs: a protocol for a realist synthesis to inform integrated care models. BMJ Open. 2017;7:e014026. https://doi.org/10.1136/bmjopen-2016014026.
12. Stiggelbout A, Van der Weijden T, De Wit M, Frosch D, Légaré F, Montori W, Trevena L, Elwyn G. Shared decision making: really putting patients at the centre of healthcare. BMJ. 2012;344:e256. https://doi.org/10.1136/bmj.e256.
13. Elwyn G, Frosch D, Thomson R, Joseph-Williams N, Lloyd A, Kinnersley P, Cording E, Tomson D, Dodd C, Rollnick S, Edwards A, Barry M. Shared decision making: a model for clinical practice. J Gen Intern Med. 2012;27(10):1361–7. https://doi.org/10.1007/s11606-012-2077-6.
14. Allen K, Glasby J. 'The billion dollar question': embedding prevention in older people's services—ten 'high-impact' changes. Br J Soc Work. 2013;43:904–24. https://doi.org/10.1093/bjsw/bcs024.
15. Ford JA, Kharicha K, Clarke CS, Clark A, Iliffe S, Goodman C, Manthrope J, Steel N, Walters K. Service use of older people who participate in primary care health promotion: a latent class analysis. BMC Health Serv Res. 2017;17:176–81. https://doi.org/10.1186/s12913-017-2122-6.
16. Stuck AE, Elkuch P, Dapp U, Anders J, Iliffe S, Swift CG. Feasibility and yield of a self-administered questionnaire for health risk appraisal in older people in three European countries. Age Ageing. 2002;31:463–7. https://doi.org/10.1093/ageing/31.6.463.
17. Stuck AE, Moser A, Morf U, Wirz U, Wyser J, Gillman G, Born S, Zwahlen M, Iliffe S, Harari D, Swift C, Beck J, Egger M. Effect of health risk assessment and counselling on health behaviour and survival in older people: a pragmatic randomised trial. PLoS Med. 2015;12(10):e1001889. https://doi.org/10.1371/journal.pmed.1001889.
18. Iliffe S, Kharicha K, Harari D, Swift C, Goodman C, Mantho J. User involvement in the development of a health promotion technology for older people: findings from the SWISH project. Health Soc Care Community. 2010;18:147–59. https://doi.org/10.1111/j.1365-2524.2009.00882.x.
19. Walters K, Kharicha K, Goodman C, Handley M, Manthorpe J, Cattan M, Morris S, Clarke C, Round J, Iliffe S. Promoting independence, health and wellbeing for older people: a feasibility study of computer-aided health and social risk appraisal system in primary care. BMC Fam Pract. 2017;18:47. https://doi.org/10.1186/s12875-017-0620-6.
20. McCracken AL. Advocacy. It is time to be the change. J Gerontol Nurs. 2010;36:15–7.
21. Boeckxstaens P, De Graaf P. Primary care and care for older persons: position paper of the European Forum for Primary Care. Qual Prim Care. 2011;19:369–89.

Scholar

12

Bea L. Dijkman, Paul C. Beenen, and Jelly Zuidersma

Learning Objectives

You

- Are able to define the role of scholar from the viewpoint of your profession.
- Understand the importance of the role of scholar in your profession for the older people and ageing society.
- Know the steps in the circle of reflective learning and be able to use these steps to increase your own expertise.
- Are aware of the importance of inter-professional and collaborative learning processes and can participate and contribute to this yourself.
- Can work evidence based and also are aware of the limitations.
- Understand the importance of innovation (transition) in health and social care for older people and need for border crossing between professions.
- Understand the concept of future literacy related to innovation.

B. L. Dijkman (✉)
Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: b.l.dijkman@pl.hanze.nl

P. C. Beenen
School of Health Care Studies and School of Sports Studies—Master Healthy Ageing Professional, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: p.c.beenen@pl.hanze.nl

J. Zuidersma
NetwerkZON and Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: j.zuidersma@netwerkzon.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_12

12.1 Introduction

Since in all European countries population is ageing rapidly, this is the most significant driver for changing health and care needs in our societies. For health and social care professionals, it is crucial to anticipate future skills needed to meet the new demands of health and social care for older persons. For example, the shift from care in hospitals to the provision of care and support closer to home; to cope with older persons with multiple chronic conditions; the growth of new technologies, new medical appliances and diagnostic techniques; and the expansion of e-health all require new ways of working. Continuous professional development is an important tool to safeguard patient safety within the context of cross-border mobility of health professionals and patients in the EU. Professional development refers to formal courses and programmes in professional education and to the formal and informal development of professional skills that occurs in the workplace. Continuous professional development and lifelong learning have become cornerstones of professional practice across all health and social care professions and all qualifications. Consequently, all health and social care professionals working with older persons need to be able to grow their own expertise and to contribute to the innovation needed for good care and support for the older people. This requires skills for reflection, lifelong learning, evidence-based practice and innovation. These all are part of the role of the Scholar.

Example

In the Netherlands, as in many other European countries, responsibility for health and social care services is being delegated from central to local authorities. Since 2015, municipalities have new responsibilities in the domains of youth care, long-term care and income support. Care and support for older people is changing in the sense that older people live at home longer, supported by a care network of professionals and volunteers. To prepare the professionals with their changing tasks, a large health and welfare organisation provides training sessions. Thomas, a social worker, is participating in the training about older people. The participants have different professional backgrounds in health and social care. During the training sessions, there is a lot of time to discuss their own experiences and to reflect on the changes that are needed in daily practice. Thomas is positive about the training because it gives him a new perspective on his own work with older people. He realizes he needs to focus more on empowerment of the older people, collaboration with other health and social care professionals and the role of the informal caregivers and volunteers. But he realizes also more innovation is needed to address the changing needs for older people. He brings up the issue with his team manager. As part of his professional development, he prefers to be more involved in innovative projects. Together they decide on further training needs and involvement in the regional learning network.

12.2 The Role of Scholar

As a Scholar, the health and social care professionals pursue excellence by continually evaluating the processes and outcomes of their daily work, comparing their work with that of others, and by actively seeking feedback to improve the quality of care and support they provide for the older person and their family. Feedback on their work from an organizational level should also be sought. As lifelong learners, health and social care professionals must implement a planned approach to learning in order to achieve improvement in each role. They must therefore use multiple ways of learning and should demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of knowledge about older people, as related to their own profession and domain of expertise. The aim is to increase the quality of support and care by implementing evidence-based practice and knowledge dissemination.

Health and social care professionals working with older people can be seen as knowledge workers, since they are expected to use the best evidence in providing care. They work in a knowledge-intense business, and their work includes both routine work and nonroutine work. Patient oriented care for older people requires a lot of nonroutine work, since all patients have their own individual needs, situation and history. Nonroutine work includes exceptions, requires judgment and use of knowledge and experience and might be confusing sometimes. Nonroutine work requires different ways of learning and innovative skills. In the situation that change is inevitable, the best approach is to see it as an opportunity for learning and focus on acquiring, analysing, synthetizing and applying evidence to guide practice decisions. This requires skills for lifelong learning.

Lifelong learning, according to *Collins English Dictionary*, is "the provision or use of both formal and informal learning opportunities throughout people's lives in order to foster the continuous development and improvement of the knowledge and skills needed for employment and personal fulfilment". Lifelong learning encompasses continuous professional development and personal development.

As lifelong learners, health and social care professionals strive to master their profession in order to contribute to the best possible care and support for the older person. They are and stay adequately equipped to perform the right evidence-based care and social support for older persons by the latest best practice and research findings.

For the role of the Scholar, there are two main competences, and both require lifelong learning skills. The first competence is about growing one's expertise by different ways of learning and disseminating this expertise. The second competence of this role concerns evidence-based practice and the innovation of care and services.

12.3 Competence: Expertise

The health and social care professional acquires and maintains current knowledge to improve the quality of life and care of the older persons. The challenge is to embrace evidence-based practice as it evolves while sustaining and nurturing core

fundamental skills and values. The changes in health and social care and the growing body of knowledge about how to meet the older person's complex needs reinforce the need for all health and social care professionals in all settings to commit to, and engage in, reflective practice, continuing professional development and education programmes on an ongoing basis and increase their scope of practice.

Acknowledging the central role that families and friends play in the lives of the older person, the goal of each professional-patient interaction is to assist older people to live to the maximum of their ability; cope with their physical, psychological, social, sensory, cognitive or spiritual deficits and losses; prevent further disease-related losses; and promote and maintain comfort and dignity through healthy living and the dying phase [1]. This demands that the professional in health and social care builds a relationship with the older person and his family and has a sound knowledge base, together with a wide variety of skills, on which to develop expertise and implement best practice guidelines.

12.3.1 Competence Description

Expand professional expertise for their own professional practice in relation to working with older people and their families. Spread relevant new evidence-based research among fellow professionals and other professionals in health and social care.

Performance Indicators

- Evaluate the processes and the outcomes of their daily work, sharing and comparing their work with that of others, and actively seeking feedback in relation to the quality of health and social care for older people and their families.
- Increase their knowledge, understanding and skills with respect to working with older persons through continuing education, training, supervision and consultation.
- Use multiple ways of learning in order to achieve improvement in each role (i.e. all seven ECCF roles).
- Relate concepts and theories of biological, psychological and social ageing to health and social work practice and understand the effects of cohort and generational experiences on older persons, the normal ageing processes and the life course perspective.
- Recognize how their attitudes and beliefs about ageing, about older persons and about diversity may be relevant to their assessment and treatment of older persons, and seek consultation or further education about these issues when indicated.
- Contribute to the dissemination and/or creation of knowledge and practices applicable to health and wellbeing of the ageing population.
- Identify any area of need for information and initiate, using research-based evidence, an information service for older persons and their families or caregivers.
- Summarize and communicate to professional and lay audiences, including older persons and their families, the findings of applicable studies and reports about healthy ageing and an ageing population.

Looking at the performance indicators of this competence "Expertise", two main parts can be distinguished: the first one is to grow your expertise, as lifelong learners, by different ways of learning and the second one is to spread the relevant expertise to colleagues and lay audiences including older people and their families.

Learning is a lifelong process and is necessary for health and social care professionals at all levels, in all different health and social care settings. Learning can be categorized in two main dimensions: formal versus informal learning and self-directed versus other-directed learning. In self-directed learning, you will determine your own learning goals and your own learning path. In other-directed learning, this is decided by someone else, for example, by the manager sending you to a course. Formal learning takes place in a formal setting such as a training or a course and often includes a certificate or diploma. Informal learning can happen everywhere. Self-directed learning has been found to be much more effective than other-directed learning.

Self-directed informal learning is one of the most common forms of learning for professionals in health and social care working with older people. It often occurs by learning from experience on the job and requires reflective learning skills. There is no formal structure or curriculum and usually no expert trainer who teaches students. Moreover, usually there is no formal recognition of completion, such as a certificate or diploma. Self-directed learning can also occur in a formal learning setting. Examples of these are online and face-to-face courses often including an assessment and certificate. Self-directed, formal training includes learners selecting and carrying out their own learning goals, objectives, methods and means to verify that the goals were met. Self-directed learning is very important for continuous professional development and lifelong learning. Since collaboration and inter-professional teamwork become more and more important, collaborative learning is considered to be an effective to learn competences of inter-professional collaboration and can contribute to innovation in health and social care for older people.

Professional development can be seen as a stage model. For example, Benner developed, based on the Dreyfus model of skill aquisition, a five-step model, originally for nurses but also applicable in other health and social care settings. The five steps are "Novice", "Beginner", "Competent", "Proficiency" and "Expert" [2, 3]. She suggested that every individual would need to follow these five stages in order to become "Expert", although not everyone is aware of it and not everyone will reach the stage of the Expert. In the beginning of a career in health and social care, there tends to be a reliance on to-do lists, checklists and specific policies or procedures because the professional is attempting to apply abstract principles to real events. Over time, experience expands the perspective of the professional, allowing them to change their perception of what needs to be done for every patient or client. Highly skilled performance, instead, involves intuitive assessment of each situation against the background of previous experience. It involves skillful know-how.

Important to keep in mind is that professional development and learning processes are influenced by the understanding you have of your profession. Understanding integrates knowing, acting and being. More specifically, the knowledge and skills that professionals use in performing their work depend on their embodied understanding of the practice in question. For example, in medicine a preoccupation with diagnosing and treating dysfunctional parts of the physical body is at odds with taking a holistic view of the patient and the impact of illness on his or her life [4]. These two different understandings can result in two different ways of interacting with patients and different views on what expert knowledge and skills encompass.

Below we will describe in more detail the skills for reflective learning and collaborative learning.

12.3.2 Reflective Thinking and Learning

Throughout one's professional education experience and practice, critical and reflective thinking needs to become a part of daily learning and practice, since this is necessary in order to grow your own expertise. Conway [5] noted that nurses who used reflective thinking implemented care based on the individualized care needs of the patient and less tended to provide illness-oriented care. Similarly, this is important for all health and social care professionals in the care and services for older persons. Reflection helps professionals to cope with unique situations. It requires creativity and conscious self-evaluation over a period of time.

For reflective learning you need to be able to think about your emerging practice at a deeper level, questioning your assumptions and gaining greater self-awareness. This requires the ability to think clearly and rationally, to understand the logical connection between ideas and to think critically. Critical thinking is about questioning ideas and assumptions rather than accepting them at face value. Always seek to determine whether the ideas, arguments and findings represent the entire picture and be open to realize that they do not.

You as a social and health care professional working with older people should be able to develop the four intellectual traits necessary for critical thinking and reflective learning [6]:

1. *Intellectual humility*: willingness to admit what you do not know.
2. *Intellectual integrity*: continual evaluation of your own thinking and willingness to admit when your thinking is not adequate.
3. *Intellectual courage:* ability to face and fairly address ideas, beliefs and viewpoints for which you may have negative feelings.
4. *Intellectual empathy:* conscious effort to understand others by putting your own feeling aside and imagining yourself in another person's place. Having empathy can help you to see beyond your own actions, feelings and motivations to imagine how another person might be feeling, what their different views and opinions might be and how these factors can influence the situation.

There are many different models that can be used for reflective learning. The Gibbs model is one of them (Fig. 12.1). The Gibbs model encourages the use of critical reflection, and especially offers a good starting point for people first using reflective practice [7].

Using Gibbs' reflective cycle helps you to challenge your assumptions, to explore different/new ideas and approaches towards doing or thinking about the situation, to promote self-improvement and to link practice and theory. The process requires that we look beneath the surface of events and experiences to achieve deeper levels of reflection and learning and converting new learning and knowledge into action and change.

The reflective process follows the six steps of the model. The first two are made up of statements of description, what happened and what did you feel, and in the third step, the evaluation you think of statements of value (whether something was good or bad). In the reflective learning cycle, the analysis phase is the most crucial part. During the analysis, the situation and experience are set in a broader context. After this you can make a conclusion and think about how to act in a similar situation next time.

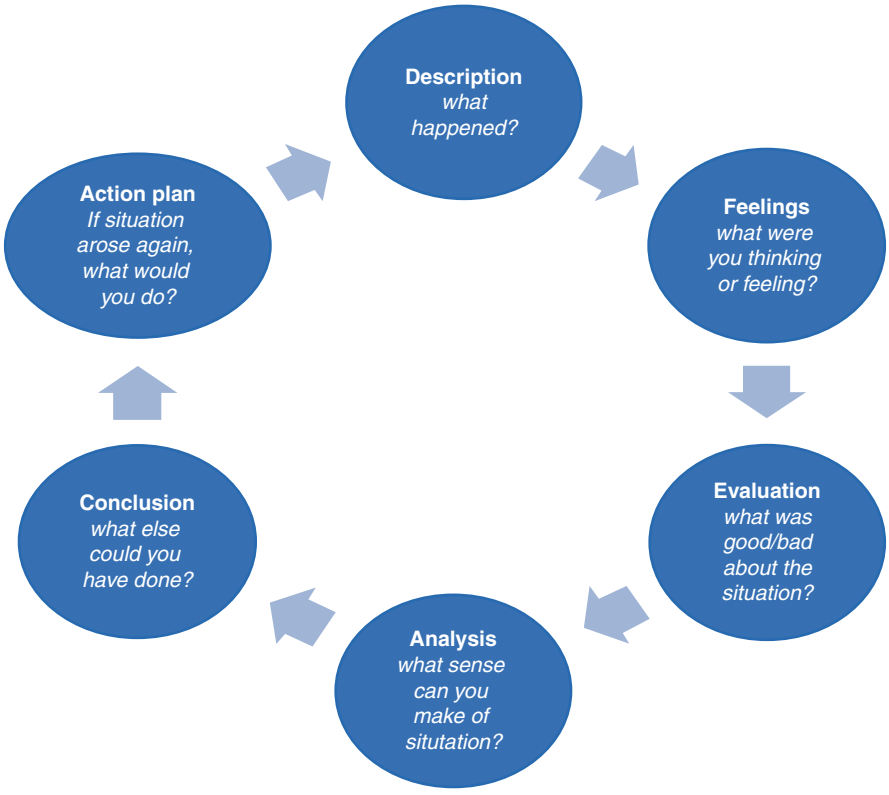

Fig. 12.1 The Gibbs model of reflective learning

The following questions help you during the analysis phase:

- Empirical: "What knowledge informed or might have informed you?" Also search for new knowledge, theories and research findings to help in analysing the situation. Compare the specific situation with this theoretical and scientific information.
- Ethical: "To what extent did you act for the best and in tune with your values and the codes of ethics of your profession and organisation?"
- Personal: "What factors influenced the way you felt, thought or responded?" Also look into your own attitudes and beliefs about ageing, about older persons and about diversity.
- Aesthetic: "What particular issues seem significant to pay attention to?" "Who is involved in the situation?"

These lead to reflection for the conclusion and action plan: "How might you respond more effectively given this situation again?"

Reflective learning may take place both individually and with others. It is also used in the context of peer performance feedback, supervision and coaching. Be open for feedback and ask for feedback by yourself. The opinion of others helps you to analyse the situation more clearly.

Not only critically reflect on specific situations but take also time to critically reflect on your own understanding of the profession and the way you provide care and support for older people and their family. It helps if the workplace encourages critical reflection on practice in a manner that enhances this understanding. For instance, in some workplaces, groups of professionals discuss the way in which they approach the care and support for older people and their families for the purpose of improving it. It can include critically reflecting on the functioning of the organization or the service it provides [4].

Some strategies that you can use to develop reflective thinking are keeping a journal, engaging in one-to-one dialogue with a facilitator, engaging in email dialogues and participating in structured group forums. Group forums can help professionals learn more about constructive feedback and can also be done online with discussion forums [8].

Intuition, Critical Thinking and Reflective Learning

Critical thinking, reflective thinking and intuition are different approaches to thinking and learning and are often used in combination. For you as a health and social care professional, it is important to realize when you use your intuition. Intuition is seen as unexplained feelings you have that something is true even when you have no evidence of proof of it. Intuition is not science, but sometimes, intuition can stimulate research and lead to greater knowledge and questions to explore. Intuition is related to experience. Benner's [2] work, *From Novice to Expert*, suggests that intuition is really the putting together of the whole picture based on scientific knowledge and clinical expertise, not just a hunch, and intuition continues to be an important part of the nursing process [3]. This is also true for all other health and

social care professionals working with older people. Intuition is an important skill; however, it also can be a pitfall if not used in combination with reflection, critical thinking and reasoning skills.

12.3.3 Collaborative and Inter-professional Learning

Collaborative learning is a situation in which two or more people learn or attempt to learn something together [9]. Unlike individual learning, collaborative learning is based on the model in which knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles. Collaborative learning can occur in peer-to-peer context or in larger groups. Peer-to-peer learning is a type of collaborative learning that involves students or professionals working in pairs or small groups to discuss concepts or find solutions to problems. This can be done with students and/or professionals with the same professional background or with other professions.

Inter-professional learning occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes [10]. Inter-professional learning is considered to be very important to prepare students for inter-professional collaboration and teamwork needed for person-centred and integrated care and support for older people. Inter-professional learning may happen spontaneously, in an implicit way, when health and social care providers from different disciplines work together in taking care of the same person [11, 12]. It may happen explicitly in inter-professional teams during special reflection and learning sessions or when participating in educational training for inter-professional groups.

Other ways of collaborative learning are, for example, communities of practice. Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly [13]. Communities of practice are known under various names, such as learning networks or thematic groups. They all have the three characteristic elements:

- A shared domain of interest.
- A community in the sense that members engage in joint activities and discussions, help each other and share information.
- A shared practice; they are practitioners in a same subject or field.

Communities of practice can vary in the number and groups of participants and the way they are organised. Some are quite small; some are very large, often with a core group and many peripheral members. Some are local and some cover the globe. Some meet mainly face-to-face, some mostly online. Some are within an organization and some include members from various organizations. Some are formally recognized, often supported with a budget, and some are completely informal and even invisible [13]. Sometimes also other participants, such as client groups, informal caregivers and students, are included in the network.

A community of practice can be a powerful way of sharing learning and ideas, building a sense of community and purpose, shaping new solutions to entrenched

problems, tapping into hidden talent and knowledge and providing space to innovate and embed change [14].

Example

In the region Thomas is working, organisations face the challenge to deal with the fast growing number of older people. This requires interdisciplinary approaches. Therefore the local universities of applied science, two vocational educational institutes and two health and social care organisations started to cooperate in a learning network. The purpose of this learning network is to find new solutions and to prepare students and health and social care professionals with the right competences. Thomas is invited to participate in this regional interdisciplinary learning network.

In this network, students, teachers, novice professionals and experienced professionals come together to exchange knowledge about and experiences. As the multilayered and interdisciplinary network exchanges knowledge and learn together, the network becomes an "interdisciplinary learning network". This network uses a systematic method for interdisciplinary work. For example, how different disciplines work together to help an older person with her or his health and/or social health question. During the network meetings, the participants bring, in cases that are discussed from different perspectives using experiences of the participants, theoretical information and reflective learning skills. Students can bring in new theories and practices, while professionals bring in their experiences. The older people who are involved themselves bring in the client's perspective. This reciprocal and interdisciplinary learning within such a network is an effective way of learning with the purpose of high-quality, client-centred social and health care for older people.

This is what keeps the networks learning [15].

The network also describes the cases in a way that it can be used in vocational institutes and universities of applied sciences for teaching their students. The cases that are provided by the learning networks are integrated in different ways in the educational programmes, e.g. formative assignments, preparation for internships and formative tests. As preparation for their internship, students for vocational training and higher education make digital, formative tests that comprise questions about health and social care issues of older people, about themes concerning Healthy Ageing (such as Technology, Lifestyle and Health Literacy) and about working and learning together. In order to be able to discuss the results of these tests before starting their internship, not only students but also their teachers and supervisors in the work field make the tests. When discussing the results in a multilayered and interdisciplinary group, reciprocal learning occurs [16].

Learning networks, as described in the example, can be regarded as social transition arenas where uncertainty is faced and challenged. A transition, such as needed in health and social care for older people, is defined as an entangled non-linear process of social change that implies new ways of policy (e.g. a shift from "governmentality" to reflexive governance), behaviour (e.g. a shift from individual learning, personal development and competition to joint learning, community building and solidarity), new relationship building (trust) and radical new ways of knowledge creation and learning [17]. Learning networks set their own agenda and focus on

those subjects, problems and cases that are relevant in their region. Partnerships between health and social care providers and universities have proven to be inevitable to ensure good qualitative, holistic and person-centred care for the ageing society. To ensure a client-centred approach, also older people themselves and their informal caretakers are included.

12.4 Competence: Innovation of Care and Services

12.4.1 Competence Description

Interpret evidence-based results of research and contribute to the development of knowledge and practical research in relation to the provision of care and support of older people and their families.

Implement and apply new insights, protocols, standards, procedures and technologies with the aim of promoting the quality, efficiency and effectiveness of care and services provided to older people and their families.

Performance Indicators

- Keep up with relevant professional literature with the focus on improvement of the care and services for older people and their families.
- Analyse research articles on aspects such as reliability and validity.
- When applicable translate research findings and recommendations to one's own practice to improve care and support for older people and their families.
- Analyse innovations and adopt appropriate actions into one's own practice.
- Develop protocols, standards and procedures in the context of promoting the quality, efficiency and effectiveness of care provided to older people based on evidence-based knowledge.
- Apply technological innovations when suitable and available, and contribute to the health and wellbeing of older people and their families.
- Conduct and contribut to practical research.

Research is considered to be very important for providing and maintaining high quality of care and support for older people and to support innovation. As a health and social care professional, you need to be able to read, interpret research results, contribute to research activities and apply evidence-based research findings into your own practice.

First, we discuss the concept of evidence-based practice, and after that we explore the scope of innovation needed in health and social care for older people and what this means for the health and social care professionals working in it.

12.4.2 Evidence-Based Practice

Evidence-based practice (EBP) can be seen as conscientious and explicit use of current best evidence in making decisions about the care and support for an older person and his/her family. A general assumption is that evidence-based practice offers

objective, context-free scientific facts, predominantly derived from empirical research [18]. Another view is that evidence is always a situation-based and negotiated product. This puts evidence-based practice right back into the daily practice of the health and social care professionals where decision making often is a very local and temporal process using different sources [19]. EBP in this view is seen as a process in which the professional combines well-researched interventions with experience and ethics and client preferences and culture to guide and inform the delivery of treatments and services.

EBP is integrating three basic principles:

1. The best available research evidence, whether and why an intervention works.
2. Expertise and assessment (judgment and experience) to rapidly identify each client's unique health and wellbeing situation and diagnosis, their individual risks and benefits of potential interventions.
3. Client's preferences and values [20].

Placing the client's benefits first, evidence-based practitioners adopt a process of lifelong learning that involves continually posing specific questions of direct practical importance to clients, searching objectively and efficiently for the current best evidence relative to each question and taking appropriate action guided by evidence [21]. The practitioner, researcher and client must work together in order to identify what works, for whom and under what conditions. This approach ensures that the treatments and services, when used as intended, will have the most effective outcomes as demonstrated by the research.

One of the techniques you can use in evidence-based practice is the PICO process. It is a technique used to frame and answer a health- and social care-related question. The PICO framework is also used to develop literature search strategies. The PICO acronym stands for:

- **P**—patient, problem or population: How would you describe the patient, client or group? What are the most important characteristics of the patient?
- **I**—intervention: What main interventions are you considering? What do you want to do with this patient or client?
- **C**—comparison, control: What is the main alternative being considered, if any?
- O—outcome: What are you trying to accomplish, measure, improve or affect?

This approach directs mainly to causal, linear and often quantifiable knowledge about effectiveness of an intervention on a selected amount of variables and helps to decide between intervention A and B. Other aspects related to the complexity and dynamics of patients and the treatment process represent in practice could be relevant as well and might require a different approach [19].

In order to improve health and social care for older people effectively, the push is on to increase knowledge about "what works". However, what counts as evidence to determine "what works" varies according to different experts. EBP can encompass research methods such as randomized controlled trials and systematic reviews but also, for example, observational, cohort, and case-control studies, surveys,

qualitative research and expert opinion. For health and social care professionals, it is important to be able to value research methods and findings on its level of evidence.

Also, the growing number of informatics tools and technologies in e-health and tracking personal data (see also Chap. 5) has potential to provide a wealth of available data that can be used meaningfully to strengthen knowledge building and evidence creation. It can help to improve the evidence base on which providers and clients can draw to diagnose and treat health and wellbeing issues and also for a more personalized approach [22].

Although, it is very important to work evidence based when possible, the idea that all interventions should be based on evidence while working with older people in health and social care has to be tempered as well by the fact that each individual and family is unique. Nonetheless, health and social care professionals are expected to use interventions with the best evidence, rather than the one they like or "common sense".

Evidence-based practice is a shared responsibility and often requires collaboration. To enforce changes in our health and social care system, some advocate a "culture of shared responsibility" in which stakeholders (researchers, providers, patients) embrace the concept of a health and social care system that "learns", share an understanding of the nature of evidence and the evolution of new methods to generate it and work together towards the goal of shared decision making that is informed by the best possible evidence [23]. The social character of evidence-based practice offers challenges for using knowledge within networks and for the ability to quickly and creatively obtain and contextualise relevant knowledge at the right moment [18]. See also the example about the learning networks.

A more critical and sophisticated understanding of knowledge, evidence and the possible role of science should be at the forefront of lifelong education. Acknowledging and discussing different views of knowledge and the use of knowledge brings evidence-based practice to the centre of the social and complex practice of health and social care for older people. More awareness in review methodology of research can improve theory building in the field of health and social care for older people and can improve to inform professional practice [24].

12.4.3 Towards a Transition in Health and Social Care Services

The scale of innovation necessary for health and social care services towards the ageing population is described previously in the first part of this book. Many health systems are reaching the end of their capacity and put, due to their increasing costs, too much pressure on societies. Then they also fail in delivering high-quality services in a rapidly changing demand for health services. As Christensen, Waldeck and Fogg put it: "The system has largely missed the true nature of the problem—the fundamental disconnect between what patients need in order to maximize their health and what they actually get as consumers: more services and treatments that generate revenue" [25]. These reflections urge a fundamental rethinking of our perspective of innovation. We need to move towards a vision of large scale and often

disruptive innovations that, on the long term, shapes an alternative system of the current health and social care services for older people. For you as a health and social care professional, it is important to understand the necessity of this fundamental transition and be able to contribute actively in this process.

This transition can be described as a purposive, large-scale, long-term and non-linear societal change [26–28]. It will necessarily change the way we think, organize and act on health and wellbeing from the individual perspective (civilian, patient, client, professional etc.), from the perspective of services and organisations and from a societal perspective. In order to manage this multilevel transition, the question is how we influence, coordinate and bring together actors and their activities so that they reinforce each other to such an extent that they can compete with the current failing but dominant health and social care practices [29, 30].

Health and social care services and their professionals have built for decades strong systems and are still optimizing them with an ingrained culture of quality management and innovation. However, this "health and social care transition" assumes a more disruptive innovation towards the purpose of creating health and social services that are sustainable and keep up with the future demands [31]. In a changing societal context, change agents start with alternative ideas, technologies and practices. Examples are experimental projects for organizing care and support and educating future health and social care professionals in alternative ways. Over time pressures on regimes to transform increase, leading to destabilization as alternatives start to accelerate and emerge. Experimenting results in new combinations of emerging alternatives and transformative regime elements grow into a new regime. Elements of an old regime that do not transform are broken down and phase out [30]. This is what is happening right now in many health and social care systems in Europe (see also Part I of this book).

What do health and social care professionals need to be able to contribute to innovation and transition needed for health and social care for older people? Health and social care professionals are challenged to take a helicopter perspective and reflect how their societies best govern health and wellbeing of their population and what this means for their role. This so-called meta-governance has roughly two challenges going hand in hand as described by Kickbush and Gleicher: One is health governance described as "the governance of the health system and health systems strengthening". The other is governance of health described as "the joint action of health and non-health sectors, the public, private sector and citizens in common" [32]. "Governance for health is the attempts of government or other actors to steer communities, countries or groups of countries to perceive health as being integral to well-being and a key feature of a successful society and vibrant 21st century economy" [33].

In both challenges, the health and social care professional plays an important role. The ability to disruptively innovate is the focus of the remaining of this chapter. However before describing the necessary capabilities to be able to innovate, it is vital to realize the "locked in" position health and social professions are in by nature of the classic health and social care systems. This is hindering collaboration and limiting to really work towards "joint action" and transition.

12.4.4 Border-Crossing Towards Inter- and Transdisciplinary Innovation

Transition theory conceptualizes change from a multilevel perspective and a multi-actor approach [28, 34]. This means that change agents should challenge and accompany (manage) the transition in health and social care on different levels. This is especially challenging for professionals in the health and social care sector as they are educated within separate sectors and separate disciplines for increasingly specialized roles. This "siloed" position is reinforced by the dominance of a reductionist paradigm based on problems analysed in a causal, linear way, resulting in a diagnosis, followed by an, preferably, evidence-based intervention [35, 36]. In the different health and social care professions, language and models of practice in this "diagnose and intervention thinking" may differ greatly. Also, there are still a growing number of specialities and professions. For the Netherlands this turned out to be more than 2400 different health-related professions alone in 2012 [37].

The education, continuous professional development and career opportunities of health and social care professionals are based and managed on the same principles of specialization and reductionism, leaving little space for systems thinking and its inherent acceptance of uncertainty, ambiguity and complexity [38]. To be "locked-in" ones own profession makes it difficult to cross professional borders and to think in a multilevel perspective and work together in practice on innovation and transition in health and social care services.

"Unlocking" professionals from this situation and be able to really innovate starts with challenging them, from the start of their education with a sophisticated epistemology [39]. This can be described as the acceptance and integration of subjective and objective aspects of knowledge that would permit a degree of evaluation and judgment of knowledge claims in specific situations. The professional then understands the patient as complex, and thus a collective sense making of knowledge is valued [40]. "Van de Ven and Johnson name this engaged scholarship: 'a collaborative form of inquiry in which academics and practitioners leverage their different perspectives and competencies to coproduce knowledge about a complex problem or phenomenon that exists under conditions of uncertainty found in the world" [41]. The coproduction of knowledge in daily decision making and applied research is then the base for innovation on all levels of health and social service systems. This innovation needs to be inspired by what is possible, what is necessary and what is desirable for a future [31, 42].

The next challenge will be to really step out the safe and comfortable professional communities and start collaborating with others to work towards more integrated care (see also Chap. 9). From there on the following step is to move beyond care towards other sectors and to places in daily living where people live, work and play. However, to cross their own borders and accept the responsibility towards change is not self-evident at all [39]. Akkerman and Bakker offer a useful and insightful framework of learning mechanism in this border crossing [43]:

(a) Identification, which is about coming to know what the diverse practices are about in relation to one another
(b) Coordination, which is about creating cooperative and routinized exchanges between practices
(c) Reflection, which is about expanding one's perspectives on the practices
(d) Transformation, which is about collaboration and co-development of (new) practices

12.4.5 Futures Literacy

Health and social professionals are predominantly focused on optimizing their services, often managed by a rigorous audit culture, focusing on what has been done in the past and predominantly thinking in frames of set (outcome) indicators. This quality management put the weight on showing evidence of improvement towards others and reduces creativity and innovation [44]. In order to innovate for a largely unknown, alternative care system, the health and social care professional needs to go beyond this optimizing and sustaining innovation and anticipate towards threats and opportunities that shape the future [45]. These, so-called, contingencies are manifold. It could be, for example, the financial unsustainability as a threat of the fourth revolution [46].

Because of the earlier discussed orientation towards specialization, it is challenging for social and health professions to follow and anticipate trends and scenarios outside their fields of expertise. Given the uncertainty and unpredictability of the complex systems we live in, just forecasting will not be enough. Innovation towards a transition demands the exploration and discovery of a future we can imagine [47]. This foresight is defined as a refined sensitivity for detecting and disclosing invisible, inarticulate or unconscious societal motives, aspirations and preferences and of articulating them in such a way as to create novel opportunities [48]. Here the professional needs to embrace locally situated and tacit knowledge in their engaged scholarship. Miller describes this capability as futures literacy:

Future literacy is a capability built on an understanding of the nature and attributes of anticipatory systems and processes. A Futures Literate person has the ability to select and deploy different anticipatory systems and processes, depending on aims and context. This skill can assist in overcoming some of the confusion and ignorance that arise when the future is reduced to a discoverable target for the purposes of preparation and /or planning. [31]

12.4.6 Innovation of Health and Social Services

The role of health and social care professionals is to find novel solutions in their services towards society, which are more effective, efficient or sustainable than the current solutions. The starting point for innovation is the capacity to develop new or modified services in co-creation of value by actors combining and exchanging

resources. It involves recombining capacities and actors into new innovation systems [44]. This process of co-creation is pushing professionals from knowledge translation towards producing knowledge. Intersectional collaboration, power sharing and the idea that the implementation starts from day one of the project are key elements for success [49]. Systematically evaluating this process is an important capacity for the health and social care professional. The general focus on outcome evaluation of health and social care professions should, by embracing the complexity of an engaged scholarship, be complemented by process evaluation such as developmental evaluation or contribution mapping [50, 51].

12.4.7 In Conclusion

Given that the majority of actors in health and social care services are highly educated professionals, their role in the necessary systemic innovation is quintessential. Innovation in this era needs to be disruptive towards a transition. For professionals this starts with the understanding of an engaged scholarship and futures literacy to go beyond the knowledge-to-action approach and the established sustaining or optimizing culture. Service innovation needs to be highly human-centred and more value-based instead of fee-for-service [46]. The introduction of human-centred design thinking and integrating and moving more towards positive health policies, interventions and fitting business models seem to be a promising opportunity for social and health professions [32, 46]. These innovations could be initiated as start-ups but should also come from intrapreneurship within the current health and social care institutions [4] and ultimately we will create new networks that improve health and wellbeing for older people and lower costs in the future.

12.5 Assignments

1. Identify opportunities for learning and improvement by regularly reflecting on and assessing your performance using various internal and external data sources. Check all the seven roles of the ECCF for new developments and personal improvement possibilities.
2. Develop a personal learning plan to enhance your professional practice and contribute to health and wellbeing of the older persons and their families.
3. Critically reflect with your colleague students on your own understanding of your profession and your contribution to good care and support for older people.
4. Take an example from your practice and use the PICO method to find evidence-based solutions/interventions. Critically reflect on the quality of the research and evidence found.
5. Identify a problem, situation or challenge in your region where transition is needed. Think about organisation and the role of the professionals and other stakeholders.

References

1. Working with older people. NMBI, 2015. https://www.nmbi.ie/nmbi/media/NMBI/Publications/working-with-older-people.pdf?ext=.pdf
2. Benner P. From novice to expert: power and excellence in nursing practice. Menlo Park, CA: Addison-Wesley; Publishing Company; 1984.
3. Benner P, Hughes RG, Sutphen M. Clinical reasoning, decisionmaking, and action: Thinking critically and clinically. In: Hughes RG, editor. Patient safety and quality: an evidence-based handbook for nurses. Rockville, MD: Agency for Healthcare Research and Quality.
4. Dall'Alba G, Sandberg J. Unveiling professional development: a critical review of stage models. Rev Educ Res. 2006;76(3):383–412.
5. Conway JE. Evolution of the species 'expert nurse'. An examination of the practical knowledge held by expert nurses. J Clin Nurs. 1998;7(1):75–82.
6. Paul RW, Heaslip P. Critical thinking and intuitive nursing practice. J Adv Nurs. 1995;22(1):40–7.
7. Gibbs G. Learning by doing: A guide to learning and teaching methods. Birmingham: SCED; 1988.
8. Finkelman A, Finkelman A, Kenner C. Professional nursing concepts. Burlington: Jones & Bartlett Learning; 2016.
9. Dillenbourg P. Collaborative learning: cognitive and computational approaches, Advances in learning and instruction series. New York, NY: Elsevier Science, Inc; 1999.
10. Gilbert JH, Yan J, Hoffman SJ. A WHO report: framework for action on interprofessional education and collaborative practice. J Allied Health. 2010;39(3):196–7.
11. Parboosingh J. Physician communities of practice: where learning and practice are inseparable. J Contin Educ Heal Prof. 2002;22:230–6. https://doi.org/10.1002/chp.1340220407.
12. Hammick M, Olckers L, Campion-Smith C. Learning in interprofessional teams: AMEE Guide no 38. Med Teach. 2009;31(1):1–12. https://doi.org/10.1080/01421590802585561.
13. Wenger E. Communities of practice: a brief introduction. 2011.
14. http://www.health.org.uk/sites/health/files/LeadingNetworksInHealthcare.pdf.
15. Zuidersma J. Wederkerigheidspatronen in regionale samenwerkingsverbanden: een gedragstheoretische benadering. Doctoral dissertation, University of Groningen. 2012.
16. Zuidersma J, Coffetti E. Do work placement tests challenge student trainees to learn? Cham: Springer International Publishing; 2014.
17. Loorbach D, Rotmans J. Managing transitions for sustainable development. In: Understanding industrial transformation. Dordrecht: Springer; 2006. p. 187–206.
18. Tuomi I. Epistemic literacy or a clash of clans? A capability-based view on the future of learning and education. Eur J Educ. 2015;50(1):21–4.
19. Marks DF. Perspectives on evidence-based practice, Health Development Agency Public Health Evidence Steering Group. 2002;(02),1–53.
20. Spring B. Evidence-based practice in clinical psychology: what it is, why it matters; what you need to know. J Clin Psychol. 2007;63(7):611–31.
21. Gibbs LE. Evidence-based practice for the helping professions: a practical guide with integrated multimedia. Pacific Grove, CA: Brooks/Cole Publishing Company; 2003.
22. Bloomrosen M, Detmer DE. Informatics, evidence-based care, and research; implications for national policy: a report of an American Medical Informatics Association health policy conference. J Am Med Inform Assoc. 2010;17(2):115–23.
23. McGinnis JM, Aisner D, Olsen L, editors. The learning healthcare system: workshop summary. Washington, DC: National Academies Press; 2007.
24. Beenen PC, Castro-caldas A. Synthesising knowledge for physiotherapy practice. Key steps towards review methodology. IJTR. 2017;24(5).
25. Christensen C, Waldeck A, Fogg R. How disruption can finally revolutionize healthcare. Christensen Institute Blog. 2017. https://www.christenseninstitute.org/publications/how-disruption-can-finally-revolutionize-healthcare/?_sft_topics=healthcare&post_types=publications.

26. Loorbach D. To Transition! Governance panarchy in the new transformation, Erasmus University Rotterdam; 2014.
27. Loorbach D, Frantzeskaki N, Avelino F. Sustainability transitions research: transforming science and practice for societal change. Annu Rev Environ Resour. 2017;42:599–626.
28. Geels FW. The multi-level perspective on sustainability transitions: responses to seven criticisms. Environ Innov Soc Trans. 2011;1(1):24–40. https://doi.org/10.1016/j.eist.2011.02.002.
29. Loorbach D, Rotmans J. The practice of transition management: Examples and lessons from four distinct cases. Futures. 2010;42(3):237–46. https://doi.org/10.1016/j.futures.2009.11.009.
30. Matheson GO, Klügl M, Engebretsen L, Bendiksen F, Blair SN, Börjesson M, et al. Prevention and management of non-communicable disease: the IOC consensus statement, Lausanne 2013. Clin J Sport Med. 2013; https://doi.org/10.1136/bjsports-2013-093034.
31. Miller R. Learning, the future, and complexity. An essay on the emergence of futures literacy. Eur J Educ. 2015;50(4):513–23. https://doi.org/10.1111/ejed.12157.
32. Kickbusch I, Gleicher D. Smart governance for health and well-being: the evidence. Copenhagen, WHO, Regional Office for Europe. 2014.
33. WHO Regional Office for Europe. Governance for health in the 21st century: a study conducted for the WHO Regional Office for Europe. Copenhagen, WHO Regional Office for Europe. 2011. http://www.euro.who.int/__data/assets/pdf_fi.
34. Avelino F, Wittmayer JM. Shifting power relations in sustainability transitions: a multi-actor perspective. J Environ Policy Plann. 2016;18:628–49. https://doi.org/10.1080/1523908X.2015.1112259.
35. Ahn AC, Tewari M, Poon C-S, Phillips RS. The Clinical Applications of a Systems Approach. PLoS Med. 2006;3(7):e209. https://doi.org/10.1371/journal.pmed.0030209.
36. Greenhalgh T, Howick J, Maskrey N. Evidence based medicine: a movement in crisis? BMJ (Clinical Research Ed). 2014;348:g3725. https://doi.org/10.1136/bmj.g3725.
37. der Velden LFJ V, de Putter ID, van der Lee I, van Hassel DTP, Batenburg RS. Quickscan Beroepen & Opleidingen in de zorg, welzijn en kinderopvang: hoofdrapport. Utrecht: NIVEL.
38. Sturmberg J, Martin C. Complexity in health: an introduction. Handbook of systems and complexity in health; 2013. pp. 171–192. https://doi.org/10.1007/978-1-4614-4998-0.
39. Beenen PC, Filiputti D, Meyer ER, Maria P, De Almeida D, Lopes AA, et al. Epistemic beliefs as a determinant in evidence- based practice in physiotherapy – a Multi-Country (Europe) Cross-Sectional Online Survey Study. Eur J Phys. 2018;20(2):85–91. https://doi.org/10.1080/21679169.2017.1374454.
40. Weick KE. Sensemaking in organizations. Thousand Oaks, CA: Sage; 1995.
41. Van De Ven AH, Johnson PE. Knowledge for theory and practice. Acad Manag Rev. 2006;31(4):802–21. https://doi.org/10.5465/AMR.2006.22527385.
42. Cundill GNR, Fabricius C, Marti N. Foghorns to the future: using knowledge and transdisciplinarity to navigate complex systems. Ecol Soc. 2005;10(2).
43. Akkerman SF, Bakker a. Boundary crossing and boundary objects. Rev Educ Res. 2011;81(2):132–69. https://doi.org/10.3102/0034654311404435.
44. Kimball L. The service innovation handbook, understanding impact. Amsterdam: Bis Publishers; 2014.
45. Christensen BC, Waldeck A, Fogg R. The innovation health care really needs: help people manage their own health. HBR. 2017.
46. Micklethwait J, Wooldridge A. The fourth revolution: the global race to reinvent the state. New York: The Penguin Press; 2014.
47. Miller R. Futures literacy — embracing complexity and using the future. Ethos. 2011;(10):23–28.
48. Chia R. Re-educating attention: what is foresight and how is it cultivated? In: Tsoukas H, Shepard J, editors. Managing the future: foresight in the knowledge economy. Malden, MA: Blackwell; 2004. p. 21–37.

49. Greenhalgh T, Jackson C, Shaw S, Janamian T. Achieving research impact through co-creation in community-based health services: literature review and case study. Milbank Q. 2016;94(2):392–429. https://doi.org/10.1111/1468-0009.12197.
50. Preskill H, Gopal S, Mack K, Cook J. Evaluating complexity: propositions for improving practice. Fsg, 1–37. 2015. Retrieved from papers://a160a322–7748-499f-b1e5-c793de7b7813/Paper/p15933.
51. Kok MO, Schuit AJ. Contribution mapping: a method for mapping the contribution of research to enhance its impact. Health Res Policy Syst. 2012;10(1):1. https://doi.org/10.1186/1478-4505-10-21.

Professional

13

Bea L. Dijkman and Frans Jakob van der Werf

Learning Objectives

You

- Understand the importance of professional behaviour when working with older people and their families.
- Know the distinction between factual statements and normative statements and what role they play in ethical argumentation.
- Are able to distinguish between claims substantiated by facts and claims that are supported by beliefs.
- Are able to explain and defend your actions against older people, their families and co-workers.
- Are able to analyse an ethical problem and link the analysis to a proposal that you can support with research data.
- Understand and appreciate diversity among older people, families and professionals.
- Are able to identify and assess your own values and possible biases regarding ageing and older people.
- Understand the importance of self-reflection both in professional work and your own wellbeing.

B. L. Dijkman (✉)
Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: b.l.dijkman@pl.hanze.nl

F. J. van der Werf
School of Nursing and School of Health Care, Hanze University of Applied Sciences, Groningen, The Netherlands
e-mail: f.j.van.der.Werf@pl.hanze.nl

© Springer Nature Switzerland AG 2019

B. L. Dijkman et al. (eds.), *Older People: Improving Health and Social Care*,
https://doi.org/10.1007/978-3-319-97610-5_13

13.1 Introduction

Professional behaviour is about mastering the skills of the profession and show appropriate professional behaviours and relationships with older persons and their families in all aspects of practice, reflecting honesty, integrity, commitment, compassion, respect, altruism, respect for diversity and maintenance of confidentially [24]. It includes self-awareness, ethical reasoning and willingness to learn striving to contribute to the health and wellbeing of older people and their families. Rather than a set of discrete skills, professionalism may be better regarded as a meta-skill, comprising situational awareness and contextual judgement, which allows individuals to draw on the communication, technical and practical skills appropriate for a given professional scenario [24]. Therefore it relies on individual characteristics, values and competences but also is largely defined by the context. Your individual characteristics underlying professionalism may develop through education and work experience. Personal values and attitudes about working with older people are also influenced by stereotypes of older people in our societies. Ageist stereotypes in our societies can cause sometimes hidden ageist attitudes in professionals and therefor influence the way professionals in health and social care treat older people. Regulations provide basic guidance and signposting on what is appropriate and what is an unacceptable professional behaviour. In many countries professional organizations, for example, for physiotherapists or social workers, have developed their own codes of conduct. These codes of conducts are centred around the needs of the patients and clients and outline the behaviour and attitudes that a person should expect to experience from these professionals. It underlines the obligation to observe the relevant laws and regulatory requirements, as well as any rules set by your employer. It enables the professionals to take responsibility for decision-making and their actions and to fulfil the duty of care to the people they serve. It sets out high standards of behaviour and helps to provide safe, guaranteed care and support.

Example

Last few weeks Sonia is really tired and she has problems with sleeping. She loves her work as a nurse within the regional hospital. Most of the people she works with are 65 or older. There are two main reasons for her poor sleeping. The first one is that due to a large group of refugees in her area, the workload has increased. The complexity of her work has increased because of language problems and cultural differences that arise with this group of people. Sometimes she has a really hard time to understand the situation and decide what to do. The second reason is the flu epidemic that started last week. The flu especially affects the older people and causes complications such as pneumonia. Many older people are hospitalized and right now there are not enough beds to help everyone.

One of the patients Sonia takes care of is Mister Yildrez, 68 years old. He is hospitalized due his amyotrophic lateral sclerosis (ALS) and now also has pneumonia caused by the flu. ALS is a motor neuron disease which cannot be cured. It leads to progressive muscle weakness which affects mobility but also speaking, swallowing and finally the possibility to breath, and that is fatal. Mr Yildrez is totally paralysed,

is depended on tube feeding and is ventilated during the night. On this moment he is diagnosed with a pneumonia. He is not capable to speak, and besides that he originates from abroad and has difficulties with understanding the national language. His daughter is his interpreter. Mr Yildrez is discussed in the multidisciplinary team. He is almost dying. Treatment of the pneumonia will lengthen his life only very shortly but will not change his condition. The team decides to suggest not to treat the pneumonia and to discuss this with the patient. However they need the daughter to speak with Mr Yildrez. She refuses to discuss about this subject and to translate it for her father. From their religious background, it is forbidden not to treat or to stop feeding. She even does not want to talk about it, and she refuses to tell dilemma to her father. Sonia and her team members are confused. What to decide?

13.2 The Role of Professional

In the role of professional, health and social care professionals are committed to the wellbeing of older persons individually and socially, through ethical practice, profession-led regulation and high standards of behaviour. The professional role is guided by codes of ethics and a commitment to the standards of the profession. Furthermore, the professional must embrace appropriate attitudes and behaviours, such as integrity, altruism and personal wellbeing. These commitments form the basis of a social contract between the health and social professional and the older person and their family.

Competences for the professional role are related to demonstrating professional ethics, professional commitment and personal awareness.

13.3 Competence: Professional Ethics

Professional ethics in health and social care at its simplest can be considered as a set of moral principles, beliefs and values that guide the professionals in making choices about the appropriate care and support. At the core of health and social care, ethics is our sense of right and wrong in the context of our professional duties and boundaries. Thinking carefully about the ethical aspects of health and social care decisions for working with older people and their families helps you to make choices that are right, good, fair and just.

13.3.1 Competence Description

Demonstrate commitment to best practices for the health and wellbeing of individual older people, their families and society through adhering to ethical standards and professional-led regulation and by showing high personal standards of behaviour.

Performance Indicators

- Apply ethical and legal principles to the complex issues that arise in care and services of older people.
- Adhere to laws and public policies related to older persons. Apply knowledge of patients' rights in professional clinical practice.
- Apply ethical principles to decisions on behalf of all older people with special attention to those with limited decisional capacity. This includes the older person's self-determination, end-of-life decisions and family conflicts.
- Respect and promote older person's right to dignity and self-determination within the context of the law and safety concerns.
- Recognize and manage conflicts of interest.
- Recognize and respond to unprofessional and unethical behaviours in others.

Ethics is an activity in which people's behaviour is judged. The judgement of an act can have far-reaching consequences and therefore caution is required. People (old and young) tend to hold their ethical views strongly for our individual moral beliefs are an odd mixture of received tradition, upbringing, personal beliefs and opinions based on life experience. The word 'ethics' is interchangeably used with 'morality' throughout this chapter and is a common practice to do so. Moral disagreements generate therefore much more than intellectual differences, and they arise about various aspects of human life: decisions, actions, policies and personal lifestyles. The 'ethical life' starts with moral sentiments about what is useful and agreeable for us as individuals and to people in general, and we are capable of evaluating these moral sentiments and argue that there are good reasons to act on certain moral sentiments rather than others.

How can morality in a nutshell be understood? As Frans de Waal puts it*:* 'Morality can be understood as a system of rules that revolves around helping or at least not hurting fellow human beings. Morality does not deny self-interest, yet curbs its pursuit so as to promote a cooperative society' [1]. Being moral includes normative self-government; we have to check our impulses and control our desires in favour of cooperation and harmony to ensure survival and reproduction. Human moral conduct is guided by goals and ideas (concepts) that are a matter of deliberation and debate. 'Ethical values are goals that represent a view of how things ought to be, to state that something is good or right in a way that is binding on all agents, or a selected group of agents' [2]. In short, ethical values are a social construct made up by concepts. Those concepts govern not only our thoughts, but they also structure what we perceive and how we relate to other people. Normally we are not aware of our concepts; we simply think and act along certain patterns. But at the same time, it is not right to accept the present institutions in which those concepts play a crucial role uncritically, for we do not know yet all the ethical questions which are likely to face us, for example, due to new technologies and developments in healthcare and social services. Therefor ethical issues demand for reasoning in order to make clear what is preferable in a particular or given situation. Moral development, whether of individuals or of society, is guided by goals and concepts which involve reflection and debate. Frans de Waal points out that nature is full of physical structures built

by animals guided by a template of how the structure ought to look. This template motivates repair or adjustment as soon as the structure deviates from the ideal. The hypothesis is that humans do the same with regard to social relations and society at large. De Waal takes into account the 'is' and 'ought' problem coined by David Hume [1]. 'In every system of morality, which I have hitherto met with, I have always remarked, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, is, and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is, however, of the last consequence. For as this ought, or ought not, expresses some new relation or affirmation, 'tis necessary that it should be observed and explained; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it. But as authors do not commonly use this precaution, I shall presume to recommend it to the readers; and am persuaded, that this small attention would subvert all the vulgar systems of morality, and let us see, that the distinction of vice and virtue is not founded merely on the relations of objects, nor is perceived by reason.' [3]. Walton points in the same direction by arguing that to make sense of an ethical justification, it cannot be ruled out that one goes from a premise that is partly descriptive or factual in nature to a conclusion which is normative [2].

For instance, there are strong indications that strength training does more good than harm to older people [4]. In order to maintain autonomy as much as possible despite the fact that health becomes more vulnerable by getting older, one might recommend strength training to the older persons. In order for these exercises to succeed, perseverance is required. Perseverance is benefited from self-discipline. Self-discipline is seen as a virtue. So, in order to maintain their own health in this case, the older persons benefit from self-discipline. The boundary of a research result (is statement) into a moral virtue (ought statement) has almost been exceeded by virtually no doubt. The question, however, is whether an older person who does not wish to adhere to a training programme can be considered immoral. To answer this question, some things are sorted out. Here, the idea is expressed that human beings are capable of improvement and can be addressed in rationality. The foregoing is an assumption that has to be subjected to an investigation before connecting moral consequences. At least a few questions need to be investigated: Is our conduct purely rational, and is to change conduct only a matter of adjusting to those rationally accepted rules? And what is there to say about self-discipline? What are the conditions for self-discipline? Physical fitness is at least one condition in order to overcome the temptation to give in to impulses. And at the same time, it is the physical fitness we wanted to restore by means of self-discipline. Before you judge people, it is of the utmost importance to examine and define the concepts and investigate the relationships between the different concepts. As we have put forward so far, judging people by their health conduct, the ethics of healthcare, is a mixture of research outcomes and values. There is always a gap to bridge between 'is

statements' and 'ought statements' which only can be done by reasoning as Hume stated. Therefore we can state that learning or studying ethics comes down to studying ethical reasoning. And ethical reasoning is presumptive by nature. Presumptive reasoning is provisional in nature which means that an assertion is considered as an assumption which may be proved or disproved dependent on the given evidence. Its conclusions are tentative. In the next section, a few crucial concepts concerning health are discussed which can be understood as templates. And templates are defined as an ideal which motivates us to meet up to that ideal by adjusting to them or repair them as soon as we deviate from that ideal [1].

13.3.2 Health Templates

Ethical reasoning is based on generally accepted opinions about what is the right thing to do in a given circumstance. Those generally accepted opinions are presumptions which are open to challenge and interpretation [5]. The templates in healthcare are an important part of where the generally accepted opinions are based. They form the compass in a discussion about what is desirable or unwelcome. The templates 'health', disease, illness and 'ageing' are created in a day-to-day social interaction, not at some abstract level. We seek for health and try to correct disease and we have certain expectations of becoming old. I will briefly summarize the characteristics of 'ageing', 'health', 'disease', 'old' and 'ageism' for they play a prominent role in discussions about healthy ageing and the older persons (refer to earlier Chaps. 2, 3 and 4). In this chapter, it is impossible to explain the concepts in detail, but the descriptions give a rough and ready definition to explain different templates. (For background information about these templates, also see the first part of this book.)

13.3.2.1 Ageing

The process of becoming older is called 'ageing'. Medical definition of 'ageing': 'The process of becoming older, a process that is genetically determined and environmentally modulated.' Evolutionary theory of ageing teaches us that ageing is caused by the decrease in the force of selection against alleles with deleterious effects later in life [6]. It has been said that our functional capacity of our biological systems increases during the first years of our life; it reaches its peak in early adulthood and then naturally declines thereafter. The rate of decline is influenced by our lifestyle and environment throughout our life. Already a dichotomy emerges: the inner and the outer. The genetic makeup of individuals and the factors outside the body itself determine someone's health. De Groningen Skipper Geert Adriaans Boomgaard died in 1899, aged 110 years and 10 months. By the age of 100, he was photographed flanked by his brother of 96 and sister of 98. The suggestion that there are genetic factors here is almost self-evident. Especially since it was known that the skipper daily drank half a bottle of wine and was an avid pipe smoker [7]. However, it is generally assumed that there is an interaction between the genes and the environment. What proportion, genes or environmental factors, turning the balance into

illness or health, makes the difference? For the purpose of this chapter, that is not of decisive importance. What is of importance is the public emphasis on lifestyle and environmental (social, political, economic, cultural and natural environment) factors to our health. What really matters is whether there is evidence to make lifestyle responsible for premature decay and disease. This question is very important and must be answered with caution. This question largely determines the moral appreciation of the older patients and clients, vulnerable people, in discussions about illness and age.

13.3.2.2 Health

The second template briefly characterized here is the template 'health'. There are different definitions of health (see also Chap. 4 in the first part of this book). Traditionally 'health' has been defined as the absence of disease. Thus, what is a disease: anything that is inconsistent with health [8]. Christopher Boorse argued that the main elements of health are biological function, and statistically normality and diseases are internal states that depress a functional ability below species-typical levels. His approach is purely conceptual. Nowadays a practical description is applied: the following practical or pragmatic definition comes from the World Health Organization: 'Health is the extent to which an individual or group is able to realize aspirations, to satisfy needs and to change or cope with the environment; health is therefore seen as a resource for everyday life, not the objective living. Health is a positive concept emphasizing social and personal resources as well as physical capacities' [9].

This description shows that health is influenced by a wide range of factors, and above all it refers to the idea that health is a dynamic process wherein the claim of being healthy must be reconsidered due to social, economic, political and cultural circumstances. The concept 'health' is value-laden in the medical discourse and it is useful as a kind of template. Health has become a value in Western societies. We are more and more inclined to assume that being healthy is morally good and unhealthy is morally wrong. 'It pressures one to assume that a. what is functional, useful and positive for health is morally good; and b. what is morally good is functional for health. And, of course, the converse assumptions about moral evils' [10]. We strive for health and therefore what is described as healthy is transferred into what we ought to be. It is said that the 'is' relates to facts and the 'ought' relates to values. Or as David Hume stated it that we should be very careful to argue from facts to the values we strive for and therefore we have to justify the change from facts to values by giving reasons for it [1]. Apart from the warning David Hume gave us to be prudent in reasoning from facts to values, there are no established facts on how to age healthily. 'Given the biological complexity of the ageing process, there is no single, simple and reliable measure of how healthily someone is ageing' [11]. Nevertheless the public is bombarded with health messages which are often inconsistent, and the government's health-care spending are growing faster than the country's overall prosperity. It is beyond doubt that we value health. But what is meant by 'health' and 'disease' or 'illness'? Every argument or discussion is served by a delimitation of the concepts or at least an attempt

to prevent confusion about what anyone means as much as possible. It is important to be aware of the fact that our unstated assumptions regarding healthy and unhealthy behaviour have consequences for people, their autonomy and dignity.

13.3.2.3 Disease

The third template to discuss is 'disease'. The concepts of illness and disease are likely difficult to define clearly. Diseases are viewed as pathological conditions and called abnormal; this normality should be interpreted statistically. Textbooks describe clinical variables, like height, weight, pulse and respiration, blood pressure, vital capacity, and so on, based on statistical means surrounded by some range of normal variation. Those variable values reflect not average persons but the healthy average persons [8]. One could argue that in medicine, the diagnosis of disease is thus mainly based on statistical findings of physical aspects that can be objectively proven. Another definition of disease refers to a dynamic process in which a disease is a cumulative of information from different sources which is in a certain degree value-laden and therefore specific to time place and culture. Margolis and Kraupl-Taylor defined disease as follows: 'Disease is a state of malfunction of body or mind that is a matter of concern to the patient, his doctors, and other relevant persons, subject to the qualifications that the malfunction has to be defined from case to case and that the consequences of the disease for the patient's obligations to others (and theirs to him) will be determined by the patient and his doctors with the consent of other relevant persons' [12]. The concept of disease is in a certain aspect value-laden and therefore subject to prejudice.

13.3.2.4 Old

The fourth template is 'old' and the connected to be avoided template of 'ageism'. The age of 60 or 65, roughly equivalent to retirement ages in most developed countries, is the starting point of old age. The latter is not necessarily an outcome of the biological process ageing but also a social construction of age, including incorrect assumptions and stereotypes about older persons which can referred to as ageism. Another form of ageism involves a tendency to structure society based on an assumption that everyone is young, thereby failing to respond appropriately to the real needs of older persons. Ageism portrays the older persons as a burden on society [13]. The image of the older persons is that of a person without an identity who is dependent on others and who is furthermore responsible for the alarming fact that health and social care spending is growing faster than the country's overall prosperity. Ageism robs the older persons from his dignity, autonomy and personhood. Above that it leads to discrimination which can prevent older person from employment, services and the risk of receiving inadequate health and social care. The question here is how to tackle ageism in health and social care. 'With greater recognition that older people are not a homogeneous group, health and social care professionals need more balanced, interdisciplinary perspectives of older age' [14]. Can a course in ethics prevent health and social care workers from committing ageism? I doubt that. What a course in ethics must contribute to is awareness of assumptions and prejudices which are inescapable part of moral reasoning about care in general and

care for the older persons in particular. To do so we can refer to four principles plus attention to scope which is developed by Beachamp and Childress [15].

13.3.3 Four Principles for Ethical Reasoning

The four principles enable us to reflect on the majority of the moral issues that arise in health and social care. Whatever our individual convictions are about religion, politics or cultural values, the four principles will help us to reflect in a more or less neutral way on moral issues that arise at work. They offer a common, basic moral analytic framework and a common, basic moral language [16]. A principle may be defined as 'a basic truth or a general law or doctrine that is used as a basis of reasoning or a guide to action or behavior'. 'Appeal to a "principle" in ethics is like appeal to a "law" in science: "principles" and "laws of nature" may both be thought of a shorthand summaries of experience – as condensed comparisons.' ([17] pp. 139). The approach 'four principles plus attention to scope' is developed in the United States by Beauchamp and Childress (*Principles of Biomedical Ethics*) and is based on four basic prima facie moral principles which are autonomy, beneficence, non-maleficence and justice and their scope of application which refers to presumptive reasoning. The scope of application is applying the question of Aristotle, cited by Stephen Toulmin ([18] pp. 37): 'Just what specific condition is affecting this particular patient, and just what should we do about it, here and now?'. The scope of application refers to those circumstances in everyday life where the absence of knowledge plays a key role which implies that fallibility and corrigibility of a claim are acknowledged. Where one applies a prima facie principle, one must be prepared to retract a claim if further knowledge tells us there is an exception. The term prima facie can be understood in the way that a principle is binding in a certain context unless it conflicts with another moral principle due to further knowledge. If the latter is the case, we have to choose between the conflicting principles.

13.3.3.1 The Principle 'Respect for Autonomy'

Autonomy is about making one's own decisions on the basis of deliberations. To respect that principle comes down to the moral obligation to take into account the decision of the other. Therefore scrutinize if the decision is compatible with equal respect for the autonomy of all potentially affected. Respecting one's autonomy requires health and social care professionals to consult the older people and obtain informed consent before an intervention is taken place. Respect for older persons' autonomy also requires not to deceive patients and clients about their health and wellbeing state or the diagnosis of their illness. They have a right to know unless a person does not want to know. The principle respect for autonomy requires a dialogue for finding out what the older person wants by giving her the necessary information in order to decide. Moreover there is a need for a way to communicate the scientific results to the population in order to enable the individuals to understand whether a proof is more or less solid. There is an urge to do so since the public is bombarded with inconsistent health messages and has little background or training

on how to evaluate the information presented in television newscasts, daily papers and the Internet.

13.3.3.2 The Principles 'Beneficence and Non-maleficence'

Frans de Waal puts the principles of beneficence and non-maleficence in the heart of any moral society. Health and social care professionals are committed to helping others which brings with them an inevitable risk of harming. Health and social care professionals must therefore consider the principles of beneficence and non-maleficence together and aim at producing net benefit over harm.

These principles require also evidence-based information about the probabilities of the various harms and benefits that may occur. There is a need for evidence-based health and social care in order to meet the good standards of practice in health and social care to ensure net benefit over harm. Evidence understood as a statistically valid conclusion about a rigorously defined cohort. What is addressed as 'evidence' is evidence for only a particular cohort under particular circumstances and may be entirely inapplicable in another. What is 'evidence' for a male of 18 who plays rugby on a high level is not automatically applicable to a male of 54 who is inactive. Effective care and support is that which is supported by high-quality evidence demonstrating that the benefits of a proposed treatment or intervention are large compared with the potential harms. Care and support which is not supported by high-quality evidence to show its effectiveness is considered bad quality practice and is therefore ethically suspect.

13.3.3.3 The Principle 'Justice'

The fourth prima facie moral principle is justice. Justice can be interpreted as the moral obligation to act on the basis of fair adjudication between competing claims. There are three categories of justice: distributive justice, rights-based justice and legal justice. Distributive justice is about the distribution of scarce resources. We have a system with a given resource limit and an unknown number of people needing treatment for different illnesses. An important moral principle used to govern moral practices and ethical dilemmas regarding those kind of questions is impartiality. The requirement of impartiality is closely related to the notion that moral judgements must be substantiated with good arguments regarding whether or not an intervention should or should not be offered to patients or clients. At first sight this kind of problems are related to subjective value judgements within a society, but the decision which is the outcome of the debate should be based upon an argument build up around the principle of impartiality in order to make sure that inequity is avoided at all time to prevent solidarity within society. It reflects the notion of Frans de Waal on what a moral system enables us to accomplish: a cooperative society.

13.3.4 Example of Ethical Reasoning

In the hospital of our example, the annual debate on the possibility of vaccination of health and social care professionals against influenza virus started again. Everyone

is aware of the general knowledge about the flu. Like that seasonal influenza spreads easily, with rapid transmission in crowded areas including schools and nursing homes. And when an infected person coughs or sneezes, droplets containing viruses (infectious droplets) are dispersed into the air and are spread to persons in close proximity who breathe these droplets in. And that the virus can also be spread by hands contaminated with influenza viruses. Everyone is aware of the fact that the flu is contagious from 1 day before the first illnesses to 6 days after the onset of these phenomena. Also it is known that after an incubation period of 1 to 3 days in which you notice little of the infection, the first illnesses may occur. Like the general public, the health and social care professionals know that the seasonal influenza is a serious public health problem that causes severe illness and death in high-risk populations. The significant morbidity and mortality associated with influenza in adults, age 65 years and older, prompted the early recommendation for influenza vaccination in that age group, based on efficacy data in younger adults. Subsequently a number of studies have demonstrated vaccine effectiveness in older adults, but it appears to be lower than in younger adults [17]. Not everybody infected with the influenza virus gets physical complaints. The question which should be answered during the staff meeting is what the best precautionary measures are to prevent the spread of flu. A higher rate of flu vaccination in hospitals leads to lower morbidity due to influenza and/or pneumonia [18]. Vaccine-preventable diseases are a significant cause of morbidity and mortality, so there is a possibility for the staff to be vaccinated against the flu during work. Some employees indicate that they want to make use of this option, and others strongly oppose (in 2011, almost 70% of nurses on Nursing.nl said to refuse vaccination). During the meeting there is a debate between proponents and opponents of vaccination. It becomes clear during the debate that both the proponents and the opponents of vaccination endorse the requirement for patient safety. But the question that remains is the way how this requirement can best be met.

13.3.4.1 Ethical Argumentation

To answer the question raised above, we return to the field of ethical argumentation. Ethical arguments are practical in nature. They serve a certain goal. According to the model of defeasible reasoning of Toulmin, the claim is supported by grounds which are factual. The warrant is the link between the claim and the grounds and shows how to infer from grounds to claim [21]. The warrant is in ethical reasoning a general moral principle which justifies the leap from 'is statements' to 'ought statements' [22]. The warrant itself can be based on further supporting evidence, for example, research papers and/or moral theories. The supporting evidence is called backing.

A known fact is in this case that health and social care professionals must be competent and qualified, recognize unsafe situations and risks and work according to protocols and guidelines. Drug safety and infection prevention are high on the list. An argument which favours vaccination for health and social care professionals must take this into account to be convincing. What is needed therefore is a so-called two-layered argument. The first layer of argument has to establish the fact

(is statement) that the influenza vaccination is the most effective way to prevent flu disease. In the second layer of argument, the established claim of the first argument is raised as a ground, a fact, in order to support the moral claim that it is a moral obligation for health and social care professionals to get vaccinated accordingly to the principle of net benefit over harm.

First Layer of Argument

Claim: Influenza vaccination is the most effective way to prevent flu disease.

Grounds: Seasonal influenza spreads easily, with rapid transmission in crowded areas including schools and nursing homes. When an infected person coughs or sneezes, droplets containing viruses are dispersed into the air and are spread to persons in close proximity who breathe these droplets in. The virus can also be spread by hands contaminated with influenza viruses. Flu is contagious from 1 day before the first illnesses to 6 days after the onset of these phenomena. About half of the infections are asymptomatic.

Warrant: The overall evidences suggest that most influenza vaccines confer relevant protection against naturally acquired infection also in the older population, who are at increased risk for influenza and complications due to influenza infection [19, 20].

Backing: An increase in vaccine coverage was associated with decreased patient in-hospital morbidity from influenza and/or pneumonia [19]. A higher rate of flu vaccination in hospitals leads to lower morbidity due to influenza and/or pneumonia [20].

Critical Question 1: Is the claim consistent with known evidence in the research field of immunology and infectious diseases?

The first layer of argument consists of evidence to support the claim that vaccination is effective in preventing contamination of the flu virus. It is an argument which gives support for an 'is statement' which will play a crucial role in supporting an 'ought claim'.

Second Layer of Argument

Goal of the second layer of argument: justify the connection between the 'is statement' and 'ought statement'

Claim: Health-care workers should get vaccinated with the flu vaccine to prevent vulnerable patients like older persons from getting ill from the influenza virus.

Ground: Influenza vaccination is the most effective way to prevent flu disease.

Warrant: Health-care workers must consider the principles of beneficence and non-maleficence together and aim at producing net benefit over harm.

Critical question 2: Does the warrant conflicts with another moral principle in this case?

13.3.4.2 Evaluation

The flu vaccination is not only for the sake of health and social care professionals but especially for their patients/clients. About half of the infections are asymptomatic. The professional may do not have flu symptoms, but they carry the virus with

them and can also infect the patients and clients he or she works with. Health and social care workers must consider the principles of beneficence and non-maleficence together and aim at producing net benefit over harm. If so then the conclusion is quickly drawn without any hesitation: Patient safety is served by taking a flu vaccination by every health and social care professional. Furthermore this action is considered as effective care. Effective care and support is that which is supported by high-quality evidence demonstrating that the benefits of a proposed treatment or intervention are large compared with the potential harms. Care and support which is not supported by high-quality evidence to show its effectiveness is considered a bad quality care and is therefore ethically suspect.

The fact that not every health-care worker is willing to take the vaccination is therefore an ethical issue. I have nothing more, in this case, than a very strong supported practical opinion about health and social care workers should get vaccinated. The term prima facie can be understood in the way that a principle is binding in a certain context unless it conflicts with another moral principle due to further knowledge. If the latter is the case, we have to choose between the conflicting principles autonomy and the principle of beneficence and non-maleficence together. That requires another type of ethical argument which I will not display here yet.

13.3.5 Concluding Remarks

Ethics is everybody's concern. As Toulmin claims, there is one characteristic point at which ethical issues arise, and that is at the margins between professional roles or at the points where professional and private lives meet and overlap ([5] pp. 394). And that is especially the case in the fields of health and social care where there is an overlap of different professions, all of which focus on the health and wellbeing of the older people. All professions have different standards and look at the health and wellbeing of the older people in a characteristic way. 'Whatever situation we are in our professional proceedings and procedures are always open to ethical questions and challenges' ([5] pp. 396). Ethical issues demand for reasoning in order to make clear what is preferable. To say otherwise, ethics is an argumentative subject because there are no objective criteria to determine what should be the case. Ethics is about values and not about facts and therefore is the outcome of a moral debate never true or false but acceptable or unacceptable. The emerging understanding of the role of circumstances in moral dilemmas is self-evident. Moral judgments are concrete, temporal and presumptive. Presumptive reasoning gives account of the fact that new information may give rise to new counterarguments defeating arguments that were originally acceptable [23]. Students therefore must be instructed how arguments can be constructed, how they can be defeated by counterarguments and how they can be defended against such defeats [23]. In order to arrive at acceptable moral claims, the assumptions, values, circumstances and roles that are at stake must be taken into account as well as how an ethical argument can be constructed. The problems that older persons face are always situated in a conglomerate of assumptions about health, illness and age, which largely determine the image of

older persons. It is important to convey these assumptions because they play a role in health and social care for older people. Toulmin's model is very suitable to deal with these problems, especially the warrant, backing and rebuttal take that into account [22].

13.4 Competence: Professional Commitment and Personal Awareness

Being a health or social care professional is not a career upon which you can or should embark unless you are dedicated to it. There is an everyday challenge of providing care or services where your actions directly affect the health and wellbeing of the older person and his or her family. People demonstrating high levels of professional commitment usually stay in their work for a long time and experience more job satisfaction [25]. Commitment has to do with dedication to your job and patients or clients and the responsibility to professional issues and challenges. Committed health and social care professionals show self-awareness, self-reflection and willingness to learn striving to contribute to the health and wellbeing of older people. Ageing populations are becoming more diverse in terms of culture, identity, disability and socio-economic standing. Therefore health and social care professionals working with older people need to have cultural awareness and be competent to deal with all these individual differences and be able to provide health and social care from a person-centred approach. They need to expand their awareness of how individual diversity in all of its manifestations (including gender, age, cohort, ethnicity, language, religion, socio-economic status, sexual orientation, gender identity, disability status, and urban/rural residence) interacts with attitudes and beliefs about ageing, to utilize this awareness to inform their assessment and treatment of older adults and to seek consultation or further education when indicated [26].

13.4.1 Competence Description

Reflect on one's own actions and improve and innovate own professional behaviour to the highest quality of care and support possible for older people and their families. Demonstrate commitment to the health and wellbeing of older people and their families. Show awareness of diversity and cultural differences.

Performance Indicators

- Demonstrate a commitment to high-quality care and support of their older persons and their families.
- Demonstrate an empathetic attitude and interest in the individual situation of the older person.
- Identify and assess one's own values and biases regarding ageing, and, as necessary, take steps to dispel myths about ageing.

- Show awareness of diversity and cultural differences and ability to work with older people from other cultures with tact and respect and within the boundaries of their own profession.
- Respect diversity among older people, families and professionals (e.g. class, race, ethnicity, gender and sexual orientation) and understand how diversity relates to variations in the ageing process.
- Respect the cultural, spiritual and ethnic values and beliefs of older people and their families.
- Exhibit self-awareness and effectively manage the influences on personal well-being and professional performance.
- Reflect on and critically evaluate her/his professional practice. Professional is open to feedback, seeks feedback and is able to change behaviour accordingly.
- Demonstrate accountability to patients, society and professional by recognizing and responding to societal expectations of the profession.
- Carry out professional duties in the face of multiple competing demands.

In the following paragraphs, three important aspects of this competence will be further explained: the first one is cultural competence, the second one is about ageism and being aware of one's own values about ageing and the third one is about self-care.

13.4.2 Cultural Competence

To be culturally competent implies having the capacity to work with older people within the context of the cultural beliefs, behaviours and needs presented by older people themselves, their families and their communities. It is crucial for delivering person-centred care and support since there is so much diversity in the European ageing population. It is about seeing each patient/client as a unique person and acknowledging and validating who people are. It is important to recognize that culture is an aspect of a person's identity. The changing demographics and economics of our growing multicultural world and the long-standing disparities in the health and wellbeing status of people from culturally diverse backgrounds have challenged health and social care providers and organizations to consider cultural diversity as a priority. Culture influences not only health and social care practices but also how the professionals and the older people themselves perceive ageing and illness [27].

13.4.2.1 Culture

Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others. It is always a collective phenomenon, but it can be connected to different collectives. Within each collective there is a variety of individuals [28]. Culture refers to integrated patterns of human behaviour that include the language, thoughts, communications, actions, customs, beliefs, values and institutions of racial, ethnic, religious or social

groups. It includes personal identification, and often there are institutions specific to ethnic, racial, religious, geographic or social groups. There are different ways to look at cultures. One of them is the cultural dimensions model of Geert Hofstede. This framework describes five dimensions, value perspectives between national cultures [28]:

1. *Power distance:* the degree of inequality among people. For example, older people with a low power distance cultural background may more openly express agreement and disagreement with professional advice and suggestions, ask questions and expect to be involved in the development of intervention plans.
2. *Individualism versus collectivism:* the extent to which people feel they are supposed to care for or be cared for by themselves and their families. For example, for older people with a collectivist background, the extended family may be very involved in caretaking. And in collectivist cultures, the good of the individual is often so related with the good of the family that family members may have a greater say in decisions about health and wellbeing. In some countries, family members may become very upset if a professional reveals bad news directly to the older person. Families and patients may place great value on the right not to know. This might conflict with the values of health and social care professionals in European countries.
3. *Masculinity versus feminity:* the extent to which a culture is conducive to dominance, assertiveness and acquisition of things versus a culture which is more conducive to people feelings and quality of life. A society is called feminine when there is not a strong differentiation between the genders for emotional and social roles. For example, in Latino cultures, it may be appropriate for women to cry about a bad prognosis, but men are not expected to show overt emotion due to 'machismo'.
4. *Uncertainty avoidance:* the degree to which people structure over unstructured situations. For example, older persons from a strong uncertainty avoidance cultural background may feel a strong need for a definitive prognosis, timeline and outcome expectations.
5. *Long-term versus short-term orientation:* valuing the future, saving and persistence versus valuing the past and present, like respect for tradition and fulfilling social obligations. For example, the short-term orientation culture's embrace of tradition and focus on 'saving face' may influence how older persons and their family approach rehabilitation. Individuals may have a sense of shame or feel strongly that it is necessary to 'hide' a disability or a bad prognosis.

Cultural competence is critical to reducing health and wellbeing disparities and improving access to health and social care that is respectful of and responsive to diverse needs. The cultural competence applies not only to the individual health and social care provider but also to the provider organization and to the health-care system as a whole. For the individual health and social care provider, cultural competence involves awareness and acceptance of difference, awareness of one's own cultural values, understanding the dynamics of difference, development of cultural knowledge and ability to adapt practice to the cultural context of the client. For the

provider organization, elements of cultural competence include valuing diversity, conducting self-assessment, managing for the dynamics of difference, institutionalizing cultural knowledge and adapting to diversity in its policies, structures and services. For the provider of information about health and wellbeing or health and social care, these elements influence beliefs and belief systems surrounding health, healing, wellness, illness, disease and delivery of health services [29].

Example

Let us go back to the example of Mister Yildrez. In trying to understand why Mr Yildrez daughter does not want them to talk to him about his bad prognosis, Sonia started to read more about cultural differences between European and Arabic countries. She discovered that the culture Mr Yildrez is from, belongs to a collective culture and also might have a more short time perspective when compared to the Hofstede dimensions. She thinks the daughter does not want him to feel bad about his bad prognosis. This is in contrast with her own ideas, realizing that in most European cultures, direct and honest communication of facts about a situation is highly valued. Truth here is demanded by ethical principle; it is the right to know. Arabs, while valuing open communication and truth, view differently the circumstances involving crises, disaster and, most particularly, those related to terminal illness and impending death. In this case of Mr Yildrez, to confront him with his bad prognosis can be seen as not only a tactless act but an unforgivable one, one which in fact might bring disaster to that person. Arab Muslims consider hope as a help for a patient to mobilize his own resources to cope with the illness, even if such hope is false by Western standards. An Arab's extreme reluctance to speak of death and to anticipate and to prepare for it should not be confused with his acceptance of its inevitability [40].

Culturally competent health and social care professionals have cultural knowledge, awareness and skills and have the desire to keep learning.

Cultural knowledge involves seeking and obtaining a foundation of knowledge about diverse cultural and ethnic groups. It is important to become familiar with common health beliefs, practices and disease patterns and perception of older people of the cultural groups you work with. Be aware that the epidemiology, manifestation of disease and effects of medications may vary in different ethnic groups [30]. There can also be cultural differences in how older people interact with their family members and in the ways of communicating. In obtaining cultural knowledge, it is critical to remember the concept of intra-cultural variation – there is more variation within cultural groups than across cultural groups. No individual is a stereotype of one's culture of origin but rather a unique blend of the diversity found within each culture and a unique accumulation of life experiences and the process of acculturation to other cultures. Interacting with clients and patients from diverse cultural groups will refine or modify your existing beliefs about a cultural group and will prevent stereotyping [31]. For this reason, it is suggested that older people themselves should be the first source of cultural information. A cultural assessment that addresses the person's appraisal of her or his health issues, personal wellbeing and possible causes, communication and family involvement preferences will yield more individualized information [32].

Cultural attitudes refer to cultural *sensitivity.* Health and social care professionals must approach older persons of different cultures not as fully knowledgeable about their culture but as open and respectful of the differences and having a willingness to learn [20]. An open attitude requires awareness of how cultural aspects also influence your professional individual behaviour and thinking in working with older people and tendencies to stereotype with regard to different cultural groups. Cultural sensitivity is important in interaction with older people from different cultures. There might be other rules of interactions within a specific cultural group, such as communication patterns and customs, division of roles in the family unit, differences between men and women and spirituality. For example, cultural norms and contexts determine what is considered appropriate physical space and touch. Sensitive professionals ask permission before conducting physical examinations, to assure that modesty is protected, and might offer the presence of a person of the same gender.

Cultural skills require cultural communication, which ranges from linguistic competence to use of an interpreter and interpretation of nonverbal cues [33]. Culturally sensitive communication is person centred, open, respectful and non-judgmental and acknowledges that the professional is willing to learn. It involves attentiveness to the person's interpretation, discussion of lifestyle and treatment choices in an open and non-judgmental manner and understanding of older person's views, concerns and information needs. Understanding the role of family is important in building a caring relationship [32]. When family members appear to do most of the speaking for the older person, it is often useful to clarify with the older person if they prefer to have communication conducted through the family rather than directly with them. More difficult is communication with people who do not speak the same language. Sometimes this requires working with an interpreter or translators or the use of online translation tools. Conducting a cultural assessment includes questioning the older person, group or community about their cultural beliefs, values and practices and how these influence their health and social care needs and the choice for the interventions [31].

13.4.2.2 Refugees and Migrants

In Europe many countries face large groups of migrants and refugees. Working with older migrants and refugees requires cultural competence of the health and social care professionals. What older refugees have in common is that they were at risk of serious human rights abuses because of their race, religion, nationality and membership of a particular social group or their political opinion and were forced to leave their country. Some will be survivors of torture, some will have had children, siblings or parents who were killed, and all will have lost their homes, way of life and community. Torture and persecution can have a prolonged impact on people's health, behaviour and expectations. These experiences can influence how people approach aged care services and can be important factors in the assessment and treatment of older people [34].

13.4.2.3 LGBT

A special group that often is neglected in health and social care settings are the ageing lesbian, gay, bisexual and transgender (LGBT). In some areas the number LGBT in the community is growing, and often health and social care professionals have no special attention for these groups. As LGBT individuals age and rely on health and social care services, they can be fearful of apathy, discrimination and abuse by professionals and other residents. If the essence of cultural competence is to affirm and value the dignity of the person different from the mode, then issues of age and LGBT require special attention. Person-centred cultural competence and sensitivity among health and social care providers are necessary in order for LGBT individuals to share the same quality of life as other members of the ageing community [35].

13.4.3 Ageism

Ageism among health and social care providers can be explicit or implicit. It can exist as implicit thoughts, feelings and behaviours towards older people that occur without conscious awareness or control. For health and social care professionals, it is important to recognize and appreciate the heterogeneity of older adults and the way they age. Some older people are still strong, active and sharp in their 80s, while some may be weaker than others.

Whether ageism is explicit or implicit, it puts older patients/clients at risk for under-treatment and overtreatment. Health and social care professionals must also be attentive to unique features of medical encounters with older patients. Knowledge and attitudes about ageing can affect how accurately and sensitively professionals distinguish normal changes associated with ageing from acute illness and chronic disease. Ageism can take the form of a health and social care professional dismissing treatable pathology as a feature of old age or treating expected changes of ageing as if they were diseases. It can also happen that professionals ignore pain, anxiety and depression as unavoidable characteristics of ageing or unconsciously view older people as less worthy or less important than their younger counterparts. Therefor health and social care professionals need to recognize implicit ageist attitudes and actions and adopt communication techniques to effectively elicit the patient's concerns and preferences to provide individualized care [36].

Be aware that ageism can also be in the older people themselves. Negative attitudes about ageing and older people also have significant consequences for the physical and mental health of older adults. Older people who feel they are a burden perceive their lives to be less valuable, putting them at risk of depression and social isolation. Older people with more positive expectations about ageing live longer, experience less stress and have a greater willingness to exercise and eat better. Recently published research shows that older people who hold negative views about their own ageing do not recover as well from disability and live on average 7.5 years less than people with positive attitudes [36].

Many health and social care students have persistent misconceptions that older patients are demented, frail and somehow unsalvageable set in their ways and

unable to change their behaviour. These students might come to view the care and support of older adults as frustrating, uninteresting and less rewarding overall. As a professional working with older people, you need to be aware of your own thoughts and feelings towards older people and ageing. Change unpleasant perceptions about ageing and embrace ageing for what it is – a normal process of living that doesn't necessarily mean disability, disease and decline. Fighting ageism in the health and social care system isn't just about changing individual mind sets but also applying positive attitudes on ageing to change policies and systems.

13.4.4 Self-Care

Caring for others is the focus of most of the health and social care professionals, working with older people and their families. It is known that in professions with the focus on care for others, the professionals need to be extra aware of caring for their selves. Often health and social care professionals feel that they need to be perfect, and some might feel guilty when they cannot do everything they think they should be doing [37]. Health and social care professionals are caring and empathetic towards the older persons and their families; however, it can become troublesome for the professionals and the people they work for when the professionals take on the emotions and suffering as their own.

All health and social care professionals need to be aware of the potential for burnout and compassion fatigue. Burnout is a syndrome manifested by emotional exhaustion, depersonalization and reduced personal accomplishments; it commonly occurs in health and social care professions. Compassion fatigue is the feeling of emotion that ensues when a person is move by the distress of suffering of another [38, 39]. Compassion is necessary for effective caring, but long-term coping with exposure to physical and emotional distress of others can lead to compassion fatigue or a state of physic exhaustion. It is in the interpersonal connection with patients/clients and families that health and social care professionals provide its best care, but this context carries risks also over time. Burnout is a reactional response to work stressors such as staffing, workload, managerial style, staff behaviour and so on and occurs gradually; in contrast compassion fatigue is relational, related to caring for others, and has a sudden onset [38].

When compared to compassion fatigue, burnout is more gradual in onset and is related to problems in the workplace rather than from becoming too attached to patients/clients.

Self-care and self-reflection strategies may also be used to prevent compassion fatigue and burnout, it is important for health and social care professionals to use self-reflection after a difficult day at work because it helps to identify the emotions, the feelings and the thoughts about the situation and to take the necessary self-care actions.

13.5 Assignments

- Find and read the codes of conduct for your own profession.
- Discuss the codes of conduct with a student/professional from another health and/or social care profession. What are the differences?
- Describe a difficult situation you had with an older person and/or his/her family? Analyse this situation according to the health templates and the principles for ethical reasoning in this chapter.
- Give an example of a situation that includes an older person of different cultural background. Where do you experience differences in values and communication? How do you handle these situations? Talk with other students about this. What can you learn from each other?
- Reflect on how you do or will take care of yourself in a stressful, difficult situation.

References

1. de Waal FBM. Natural normativity: the 'is' and 'ought' of animal behavior. Behaviour. 2014;151:185–205.
2. Walton DN. Ethical argumentation. Lanham: Rowman & Littlefield Publishers, INC; 2003. p. 31.
3. Hume D. A treatise of human nature. London: Penguin Classics; 1985. p. 521.
4. Tsutsumi T, Don BM, Zachkowski LD, Delizonna LD. Physical fitness and psychological benefits of strength training in community dwelling older adults. Appl Hum Sci. 1997;16(6):257–66.
5. Toulmin S, Rieke R, Janik J. An introduction to reasoning. London: Macmillan Publishing Company; 1978. pp 396
6. Williams G. Pleiotropy, natural selection, and the evolution of senescence. Evolution. 1957;11:398–411.
7. Knoeff R. (Editor) *Histories of Healthy Ageing / Gelukkig gezond*, Barkhuis & Universiteitsmuseum / University Museum Groningen; 2017. pp. 7, 8.
8. Boorse C. Health as a theoretical concept. Philos Sci. 1977;44:542–73.
9. World Health Organization. Health 2020. *A European policy framework and strategy for the 21st century.* 2013. http://www.euro.who.int/__data/assets/pdf_file/0011/199532/Health2020-Long.pdf. Accessed 18 Sep 2017.
10. Antonovsky A. The salutogenic model as a theory to guide health promotion. Health Promot Int. 1995;11(1):11–8.
11. Laraa J, Godfreyb A, Evansb E, Heavenc B, Brownd LJE, Barrona E, Rochesterb L, Meyere TD, Mathersa JC. Towards measurement of the Healthy Ageing Phenotype in lifestyle-based intervention studies. Maturitas. 2013;76:189–99.
12. Mersky H. Variable meanings for the definition of disease. J Med Philos. 1986;11:215–32.
13. Hagestad GO, Uhlenberg P. Should we be concerned about age segregation? Some theoretical and empirical explorations. Res Aging. 2006;28(6):638–53. Downloaded from roa.sagepub.com at UNIV OF CALIFORNIA SANTA CRUZ on April 1, 2015
14. Bowling A, Dieppe P. What is successful ageing and who should define it? BMJ. 2005;331:24–31.
15. Beauchamp TL, Childress JF. Principles of biomedical ethics. 7th ed. Oxford: Oxford University Press; 2013.
16. Gillon R. Medical ethics: four principles plus attention to scope. BMJ. 1994;309:184–8.

17. Toulmin SE. Reason in ethics. Cambridge: Cambridge University Press; 1960.
18. Toulmin SE, Jonsen AR. The Abuse of casuistry. Berkeley: University of California Press; 1989. pp 257
19. Trucci C, Paganino C, Orsi A, De Florentiis D, Ansaldi F: Influenza vaccination in the elderly: why are the overall benefits still hotly debated? Hum Vaccin Immunother. 2015 11(11): 2522–2537.
20. Riphagen-Dalhuisen J, Burgerhof J G, Frijstein G, van der Geest-Blankert A D, Danhof-Pont M B, de Jager HJ, Bos AA, Smeets EE, de Vries M J, Gallee P M, Hak E. Hospital-based cluster randomised controlled trial to assess effects of a multi-faceted programme on influenza vaccine coverage among hospital healthcare workers and nosocomial influenza in the Netherlands, 2009 to 2011 https://www.ncbi.nlm.nih.gov/pubmed/23827527
21. Toulmin SE. The uses of argument. Cambridge: Cambridge University Press; 1958.
22. Werf F, Sealy M Gelijk hebben, gelijk krijgen, Boom Lemma 2e druk. 2014.
23. Prakken H. On the nature of argument schemes, department of Information and Computing sciences, Utrecht University & Faculty of Law, University of Groningen, July 3, 2010.
24. Morrow G, Burford B, Rothwell C, Carter M, McLachlan J, Illing J. Professionalism in healthcare professionals. Report to the Health and Care Professions Council. London: HCPC; 2011.
25. Gould D, Fontenla M. Commitment to nursing: results of a qualitative interview study. J Nurs Manag. 2006;14(3):213–21.
26. Knight BG, Karel MJ, Hinrichsen GA, Qualls SH, Duffy M. Pikes Peak model for training in professional geropsychology. Am Psychol. 2009;64(3):205.
27. Seeleman C, Suurmond J, Stronks K. Cultural competence: a conceptual framework for teaching and learning. Med Educ. 2009;43(3):229–37.
28. Hofstede G. Dimensionalizing cultures: the Hofstede model in context. Online Readings Psychol Cult. 2011;2(1):8.
29. Betancourt JR, Green AR, Carrillo JE, Park ER. Cultural competence and health care disparities: key perspectives and trends. Health Aff. 2005;24(2):499–505.
30. Murphy K. The importance of cultural competence. Nurs Made Incre Easy. 2011;9(2):5.
31. Campinha-Bacote J. Many faces: addressing diversity in health care. Online J Issues Nurs. 2003;8(1):3.
32. Coffman MJ. Cultural caring in nursing practice: A meta-synthesis of qualitative research. J Cult Divers. 2004;11(3):100.
33. Zander PE. Cultural competence: analyzing the construct. J Theory Constr Test. 2006;11(2):50.
34. Atwell R, Correa-Velez I, Gifford S. Ageing out of place: health and well-being needs and access to home and aged care services for recently arrived older refugees in Melbourne, Australia. Int J Migr Health Soc Care. 2007;3(1):4–14.
35. Gendron T, Maddux S, Krinsky L, White J, Lockeman K, Metcalfe Y, Aggarwal S. Cultural competence training for healthcare professionals working with LGBT older adults. Educ Gerontol. 2013;39(6):454–63.
36. Levy BR. Eradication of ageism requires addressing the enemy within. Gerontologist. 2001;41(5):578–9.
37. Finkelman A. Professional nursing concepts: Competencies for quality leadership. Burlington: Jones & Bartlett Learning; 2017.
38. Boyle DA. Countering compassion fatigue: a requisite nursing agenda. Online J Issues Nurs. 2011;16(1):11. CINAHL. Web. 22 June 2013
39. Braunschneider, Heidi. Preventing and managing compassion fatigue and burnout in nursing. ESSAI. 2013;11: Article 11. http://dc.cod.edu/essai/vol11/iss1/11
40. Meleis AI, Jonsen AR. Ethical crises and cultural differences. West J Med. 1983;138(6):889.