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Introduction

Population ageing is a global trend. For example, in the EU-27 population the share of the older population (65 and above) increased from 13.9 % in 1991 to 17.5 % in 2011. It is expected that by 2060 the share of those 65 years and over will account for 29.5 % of the EU-27 population (Eurostat, 2013). The ageing of the population results from decreasing fertility rates, but also from increasing life-expectancy rates and the progressive ageing of the ageing population itself. These latter trends are partially attributable to improved quality of nutrition, and advances in medicine, especially knowledge about diseases and their control, and to developments such as early detection of colorectal and breast cancer in screening programmes which increase the chances of survival. Improvements in housing, nutrition, and sanitation standards have also contributed to improved life expectancy (Staehelin, 2005).

In developed countries, years added to life are generally lived in good health. However, because more people live into old age and because chronic diseases more frequently occur in the older population, the burden of disease will also increase. The ageing of the population will have an impact on healthcare, housing and community facilities, consumption patterns, and also on social security costs. In response, health professionals, researchers, and policymakers are increasingly concerned with healthy ageing, where ageing-

in-place is used as a key concept. In this chapter, we first discuss the meaning of the concept of healthy ageing, and how Sense of Coherence contributes to this process. Next, we discuss the characteristics of the community in which older people live their lives and how the community can contribute to healthy ageing in place.

Ageing and Healthy Ageing

The simple question “when is someone old?” is not easily answered. Up to now, the question is mainly answered from an exogenous, administrative, and political perspective (Koelen, 2011). In many countries, “becoming old” is defined by retirement (in countries where retirement exists) or chronological age (Cattan, 2009). Retirement age can however vary, from 55 to 75 years of age, depending on country and/or profession. Occasionally, people aged 45 or 50 years are included under the label “older” for policy or research purposes. Defining “old age” simply as chronological age can be rather misleading, particularly if we accept the social construct of old age. It is not possible, in this chapter, to explore the extensive debates, theories, and research paradigms linked to ageing and old age, but suffice to say that the concept will continue to be redefined and refined as our perceptions and understanding of old age evolve. This is also true for the concept of healthy ageing. There are many definitions for “healthy ageing,” and the concept is often used alongside related concepts such as “effective ageing”, “positive ageing”, and “successful ageing”. The World Health Organization uses the concept of “active ageing”, which is defined as “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age” (WHO, 2002; p. 12). The way healthy ageing is defined seems to depend on the context in which it is used. Hanson-Kyle (2005, p. 52) summarized different definitions and based on commonalities defines healthy ageing as “the process of

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slowing down, physically and cognitively, while resiliently adapting and compensating in order to optimally function and participate in all areas of one's life (physical, cognitive, social and spiritual)". The meaning attached to healthy ageing also depends on whether it is defined by professionals or by older people. Research reveals that older people have a different view from that of professionals, research scientists, and policymakers. Professionals frequently focus on negatively phrased topics such as disability, disease, loneliness, overweight, and falls, thereby emphasizing the problems and limitations that occur due to ageing, whereas older people focus more on supportive social environments, the ability to use resources, the ability to manage restrictions (Naaldenberg, Vaandrager, Koelen, & Leeuwis, 2011) and on adaptation, meaningfulness, and connectedness (Jeste, Depp, & Vahia, 2010). This perception relates to the increasingly accepted definition of health as "the ability to adapt and self-manage" (Huber et al., 2011).

Life Course Perspective

Healthy ageing is a lifelong process, and it evolves through the lifespan from (pre-) conception, infancy, adolescence, and young adulthood into old age. Lifespan is usually understood as the duration of a person's life history from conception to the end life. Genetic endowment, exposures to health enhancing or deteriorating occurrences in the physical and social environment at any moment in time influence health development across the lifespan (cf. Kuh & Ben Shlomo, 2004; Westendorp & Kirkwood, 2007).

Older people are often seen as passive and frail, even though in reality a substantial number are quite resilient and active in managing the challenges they face as part of the ageing process. It should be recognized that older people do not constitute a heterogeneous group. Indeed, individual diversity if anything increases with age across the life course (Marcoen, Coleman, & O'Hanlon, 2007). Or, as Aldwin, Spiro, and Park (2006) put it "some individuals become severely disabled in midlife, whereas others are running marathons in their 70s and even 80s" (p. 85).

From a life course perspective, old age (65+) may be considered as the "last season", or the third age, but reaching the age of 65 is not the last transition. Increasingly, we also talk about "the fourth age" or "the oldest old" meaning people aged 85 and over. Life course in this context is taken to mean the social aspect of the lifespan which involves biological, social, and psychological processes leading to planned or unplanned life transitions and/or events. Importantly, a life course approach recognizes that ageing experiences are influenced by factors relating to cohort effects (Hubley & Copeman, 2008; Phillipson &

Baars, 2007). Some issues related to this are unique for later life; others are of greater relevance in later life.

With increasing age, many changes occur in the social environment, as a result of retirement (loss of role), death of a spouse, death of family members and friends, and the onset of age-related sensory loss and mobility problems. It has sometimes been said that old age is an accumulation of losses forcing older people to adapt and adjust to constantly changing physical and social environments. For most part, older people demonstrate great ability to find a range of different strategies to deal with these changes. Over time, however, the available options become fewer as a result of declining resources and ability. This can have an impact on the older person's mental health and increase the risk of social isolation and loneliness (Dykstra, 2009). Research has shown that the availability of social contacts and the ability to engage in social interaction are important in maintaining healthy ageing and alleviating loneliness (Forte, 2009; Nyqvist, Cattan, Andersson, Forsman, & Gustafson, 2013). In adapting to changing circumstances, older people may use a range of "tools" available to them to facilitate engagement. Results from a systematic review and meta-analysis suggest a significant relationship between the Internet use (through, for example, social media, email, Skype) and mental well-being in older people (Forsman & Nordmyr, 2015). Research on the facilitation of social participation and the stimulation of social interaction is ongoing, but there are still gaps in our knowledge and understanding of the processes involved. However, research in associated areas has shown that there is an accumulation of socio-economic disadvantage with regard to disability over the life course, leading to morbidity and mortality inequalities in later life (Kingston et al., 2015) and also that high levels of physical capability is associated with mental well-being in older people (Cooper et al., 2014). Such findings suggest that investigations of the role of social interaction in maintaining health over the life course may need to consider the wider constructs of health in old age, including socio-economic factors and physical capability.

Sense of Coherence and Its Three Dimensions

Sense of Coherence (SOC) reflects a person's view of life and capacity to respond to stressful situations. It is a global orientation to view the life as structured, manageable, and meaningful or coherent. It is a personal way of thinking, being, and acting, with an inner trust, which leads people to identify, benefit, use, and reuse the resources at their disposal (Antonovsky, 1987; Lindström & Eriksson, 2005). SOC consists of three elements: comprehensibility, manageability, and meaningfulness. The original definition is as follows: "a global orientation that expresses the extent to

which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement." (Antonovsky, 1987, p. 19).

Comprehensibility refers to the extent to which a person perceives the stimuli confronted with, deriving from the internal and external environments, as making sense as information that is ordered, consistent, structured, and clear. The person scoring high on the sense of comprehensibility expects that stimuli they encounter in the future will be predictable, ordered, and explicit. This is the cognitive component of the SOC. Manageability is the extent to which a person perceives that resources are at their disposal that are adequate to meet the demands posed by the stimuli that bombards them. "At a person's disposal" refers to resources under the person's own control or to resources controlled by legitimate others. This is the instrumental/behavioural component of the SOC. Meaningfulness refers to the extent to which a person feels that life makes sense emotionally, that problems and demands are worth investing energy in, are worthy of commitment and engagement, seen as challenges rather than burdens. This is the motivational component of the SOC. The original name of the instrument to measure sense of coherence is "the life orientation questionnaire". The SOC can be measured by using 29 items or a shortened form of 13 items. For more details of the SOC questionnaire, see Chaps. 11 and 12 in this book.

How the SOC Develops in the Life Course

A person's SOC affects and is affected at each stage across the lifespan by the surrounding environment and people in the local environment. In the mid-1980s, Antonovsky wrote an article about the importance of the sense of coherence for mental health and related this to a life course perspective (Antonovsky, 1985). In a lecture he gave in Berkeley, he discussed the transition from adolescence to adulthood and ageing, and argued for the usefulness of the salutogenic perspective (Antonovsky, 1993). He positioned ageing persons in a context of a health continuum, the ease/disease continuum, and argued that people are all constantly moving in this continuum. People, dependent on age, are in different positions in this continuum. In Antonovsky's words: "I propose that all living human beings, at any point in time, are somewhere on a continuum between the two extreme poles. An elderly person with a thick medical folder is no less on the continuum than an active, hungry, screaming, and smiling infant or than a strapping adolescent.

They are at different points on the continuum; the dynamic prognoses are different."

Antonovsky considered ageing as a process of human development instead of just a biological and mental degradation of the body: "Is it not possible that the ten billion neurons in the human cortex can come up with some replacement for what has senesced? Whatever the case may be for the biological development of salutary factors till the very end of life . . . , I can surely see the possibility of the growth of social-psychological salutary factors as one gets older" (Antonovsky, 1993). These thoughts can be related to Erikson's theory of human identity development and the need for full awareness of context, especially as one gets older (Erikson & Erikson, 1998).

According to Antonovsky (1987), the SOC is assumed to develop until the age of 30, to remain stable until retirement, and thereafter to decrease. However, this assumption has not been empirically supported in previous research. The SOC seems to be relatively stable over time, but not as stable as initially assumed (Eriksson & Lindström, 2011). Research findings show that the SOC develops over the entire lifespan, in other words it increases with age (Feldt et al., 2007, 2011; Nilsson, Leppert, Simonsson, & Starrin, 2010). In the HeSSup study among 18,525 Finns, the SOC seemed to increase with age in terms of being more stable among subjects aged 30 and over (stability coefficient 0.81) than among younger adults (0.70) (Feldt et al., 2007). More recent longitudinal research ($n = 19,629$, response rate 80.2 %) sheds light over how the development of the SOC from different age groups can be understood. Feldt et al. (2011) found that the strongest development (46–58 %) was among those participants whose SOC was strong at baseline. A class of strong SOC with a decreasing trend and that of low SOC with an increasing trend was also found. Nilsson et al. (2010) were able to demonstrate on a sample of Swedes, aged 18–85 years ($n = 43,598$), that SOC increases with age in both men and women.

SOC and Healthy Ageing

Research among older people shows, as during other periods of the life cycle, that a strong sense of coherence is related to good perceived health and quality of life (Bryant, Corbett, & Kutner, 2001; Eriksson & Lindström, 2005, 2006; Holmgren & Söderhamn, 2005; Schneider, Driesch, Kruse, Nehen, & Heuft, 2006; Stenbock-Hult & Sarvimäki, 1994). Results from a longitudinal study among 74 Germans over 60 years showed that a strong SOC was related to good health and had a positive impact on perceived age-related changes (Schneider et al., 2006). The sense of context explained 63 % of variance in well-being in this study. Wiesmann and Hannich (2008) and Wiesmann, Dezutter,

and Hannich (2014) investigated the role that SOC and generalized resistance resources have for older people's experience of life satisfaction among 387 Germans with a mean age of 73.8 years. The results showed that the SOC-as-the ability to cope in everyday life-, social support and self-esteem were factors that contributed to older people's satisfaction with life (Table 15.1).

Salutogenic qualitative research shows that healthy ageing means to have something meaningful to do, and that there is a balance between capacity and challenges of growing old. Fundamental to feeling good was to have a positive outlook on life (Bryant et al., 2001). Meaningfulness is especially important for older people. Takkinnen and Ruoppila (2001) investigated Finnish 65–92 year olds in the so-called Evergreen project. They found that the factors that give life purpose are to maintain social relationships, to be socially active, to have a hobby, to have the ability to be physically active, to be happy with life, and to have good health. Low levels of both depressive symptoms and feelings of loneliness contributed to perceived good health. Rennemark (1999) examined the relationship between health/wellness and SOC through the life stories of 71-year-old Swedes. The results confirmed previous research that people with a strong SOC reported fewer symptoms of illness, such as perceived depression. A positive valuation of childhood and adolescence co-varied with a strong SOC later in life. Also Khoon-Kiat, Vehvilainen-Julkunen, and Wai-Chi Chan (2013, p. 497) concluded, based on a review study, that a strong SOC among older people was correlated with better physical, social, and mental health.

Gender differences are reported in terms of SOC and perceived health among older people. In a Norwegian study among 242 older people (mean age 84.6 years), examining how the SOC affected the perception of health (Sævareid, Thygesen, Nygaard, & Lindstrom, 2007), it was found that both men and women had health problems directly related to perceived health, while psychological symptoms were directly related to perceived health only in men. The gender difference reduced the effect of SOC on perceived health.

As pointed out earlier, ageing is a process, and concepts such as successful ageing and healthy ageing are frequently used (Lezwijn et al., 2011). Salutogenic research also uses the term "resilient ageing" (Hicks & Conner, 2014). As a basis for an EU conference "Salutogenesis and the promotion of positive mental health in older people" (19–20 April 2010, Madrid, Spain), Billings and Hashem (2010) conducted a review of studies among older people using a salutogenic approach to ageing. The review included concepts and theories closely related to SOC, such as resilience, hardiness, and religiosity (religious beliefs). The authors highlighted different models for healthy ageing,

including factors such as self-reliance, sense of control over life, and a positive attitude to life, all to be important determinants of good ageing. They also noted that although the salutogenic approach provides a valuable contribution to maintain and develop health among older people, research and application in practice had not achieved the expected attention and impact.

GRR and SRR for Older People

Two important concepts in salutogenic theory are *Generalized Resistance Resources* (GRR) and *Specific Resistance Resources* (SRR). *Generalized resistance resources* (GRRs) are those resources that help a person to avoid or to combat a wide variety of stressors (Antonovsky, 1979). GRRs arise from the cultural, social, and environmental living conditions and early childhood upbringing and socialization experiences (see Chap. 7). GRRs can be found within people as resources bound to their person and capacity, but also within their immediate and distant environment and can be both material and non-material (Lindström & Eriksson, 2005). Examples of GRRs are genetic and constitutional qualities, knowledge, intelligence, ego-strength, control, social support, commitment, cultural stability, but also material resources such as money. Importantly, it is not just that such resources are available, but that the individual has the capacity to recognize, use, and reuse the resources for the intended purpose, which helps to increase health and well-being. GRRs are applicable in a wide variety of situations. Specific Resistance Resources (SRRs) on the other hand are particular resources, useful in specific situations. Or, as Mittelmark et al. put it in Chap. 8, a GRR is a generality, an SRR is a particularity. In their words, "... SRR ... are optimized by societal action in which public health has a contributing role, e.g. the provision of ... health and social and protective (welfare) services, and supportive social and physical environments".

The Community

Many of the "prerequisites" to strengthen GGRs, SRRs, and SOC are provided by or mediated through the community. But what constitutes a community? Even though the concept is used often in health promotion literature, there is no general understanding of the concept. However, two broad lines can be distinguished, that is, definitions in terms of geographical area and definitions in terms of shared characteristics (Koelen & van den Ban, 2004, p. 136). For the sake of simplicity, here we mean groups of people living in a certain geographical area, often sharing a common culture, values and norms, and who are placed in a social

Table 15.1 A selection of studies using SOC among older people

Country	Sample	Variables	Study design and measures	Results and conclusions	First author
Poland	Older adults (mean age 71.04)	Religiousness, SOC, coping	Cross-sectional Religious Meaning System Questionnaire, SOC-29, Coping Inventory for Stressful Situations	Findings showed that the religious meaning system had significant relationships with SOC and three coping styles: emotion-oriented coping, avoidance-oriented coping, and social diversion. In addition, SOC mediated the relations between the religious meaning system and three coping styles: the emotion-oriented, avoidance-oriented, and social diversion. The positive associations between meaning-oriented religiousness, SOC, and coping styles imply that their underlying mechanisms are based on the structures of significance and comprehension. The character of mediational relations (i.e., mediator vs. suppressor) depended on the emotional and social coping strategies used by older adults	Krok, D (2015). Sense of coherence mediates the relationship between the religious meaning system and coping styles in Polish older adults. <i>Aging & Mental Health</i> , June 19, 1–8
Norway	Cognitively intact Nursing Home residents	SOC	Cross-sectional SOC-13	In accordance with the salutogenic theory of sense of coherence, the three-factor model revealed the best fit to our data. In particular, item OLQ2, defined as “concerns the experience of being surprised by the behaviour of people whom you know well”, seemed troublesome. Removing this item resulted in good fit to the present data. Rewording or deleting item OLQ2 seems needed to get a reliable instrument measuring sense of coherence among nursing home residents	Drageset, J. & Haugan, G. (2015). Psychometric properties of the Orientation to Life Questionnaire in nursing home residents. <i>Scandinavian Journal of Caring Sciences</i> , doi: 10.1111/sjcs.12271
Norway	Nursing home residents	SOC, social support	Longitudinal SOC-13, Social Provisions Scale	SOC increased statistically significantly from baseline to follow-up. The social support subdimension reassurance of worth predicted change in SOC after adjustment for socio-demographic factors. When controlled for baseline SOC, attachment was associated with change in SOC, but reassurance of worth was not. The study indicates that the change in SOC over time during the 5 years of follow-up and the social support dimension attachment appear to be important components of change in SOC	Drageset, J. et al. (2014). Sense of coherence among cognitively intact nursing home residents—a five-year longitudinal study. <i>Aging & Mental Health</i> , 18(7), 889–896

(continued)

Table 15.1 (continued)

Country	Sample	Variables	Study design and measures	Results and conclusions	First author
Spain	Older adults (mean age 74.8)	SOC, posttraumatic stress disorder symptoms, daily life functioning, religious beliefs and practices and social support	Cross-sectional SOC-13, Severity of Posttraumatic Stress Disorder Symptom Scale, Daily Life Functioning Scale, Systems of beliefs inventory, Posttraumatic Growth Inventory	Older people may experience psychological growth following a life major event. The objective of this study was to analyse the degree of posttraumatic growth (PTG) developed by widowed and non-widowed older adults ($n = 103$) as well as the impact of possible predicting variables such as socio-demographic characteristics, experienced or witnessed life major events, religiosity, and sense of coherence. The findings suggest that, in spite of widowhood, elder people develop PTG in the same way that non-widowed elder people. Therefore, the support of a religious community, age, life major events experienced and the subjective meaning given to them correlated with PTG	López, J., et al. (2014). Posttraumatic growth in widowed and non-widowed older adults: Religiosity and sense of coherence. <i>Journal of Religion and Health</i> , 53(6), doi: 10.1007/s10943-014-9876-5
Japan	Volunteers >65 years old (mean age 69.1)	SOC, depressive mood	Longitudinal SOC-13, Geriatric Depression Scale-Short Version-Japanese (GDS-S-J)	Analyses of the simple main effects showed that sense of meaningfulness significantly increased for members of the intervention group at all terms, with no changes in the control group over time. Multiple mediation analysis revealed that participation in the intergenerational program was associated with a sense of manageability which was also significantly related to depressive mood. However, given our limited sample size, generalizability was restricted and studies with larger cohorts are required to further validate our findings	Murayama, Y., et al. (2014). The effect of intergenerational programs on the mental health of elderly adults. <i>Aging & Mental Health</i> , 10, doi: 10.1080/136077863.136072014.136933309
Norway	Elderly caregivers (mean age 79)	SOC, cognitive decline (persons with dementia), caregiver burden, social support	Cross-sectional SOC-13, Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE), Relative Stress Scale (RSS), Social Provision Scale (SPS)	With adjustments for socio-demographic variables, the association with burden of care was statistically significant for the subdimension attachment ($p < 0.01$) and for sense of coherence ($p < 0.001$). The burden of care was associated with attachment and with sense of coherence. Community nurses and other health professionals should take necessary action to strengthen attachment and sense of coherence among the caregivers of people with dementia	Svenslien, K., et al. (2014). Burden of care, social support, and sense of coherence in elderly caregivers living with individuals with symptoms of dementia. <i>Dementia</i> , December 18, DOI: 10.1177/1471301214563319

Germany	SOC, self-esteem, generalized self-efficacy, optimism, social support, morbidity, bodily pain (mean age 73.8)	Cross-sectional Bodily Pain subscale of the SF-36 Health Survey, SOC-29, Rosenberg Self-Esteem Scale, Life Orientation Test, Generalized Self-Efficacy Scale, Expected Social Support Scale	We found that morbidity and sense of coherence were the only significant predictors of pain, with morbidity showing the strongest effect. Using path analysis, the sense of coherence was a mediator of the relationship between resistance resources/deficits and pain. With respect to our analytical model, in which pain experience was the criterion variable, morbidity and the sense of coherence are important predictors of pain. Moreover, we found evidence for the salutogenic idea that the sense of coherence represents a mediator variable as it pools resistance/deficits influences on pain	Wiesmann, U. et al. (2014). Sense of coherence and pain experience in older age. <i>International Psychogeriatrics</i> , 26 (1), 123–133
	Belgium	Flemish elderly (mean age 76.5)	Depressive symptoms, life satisfaction, SOC, ego-integrity, despair	Cross-sectional Centre for Epidemiological Studies Depression Scale (CES-D), The Satisfaction with Life Scale (SWLS), SOC-13, Ego-integrity and despair (Van Hiel & Vaamsteenkiste)
Norway	Older nursing home residents (mean age 65–102)	Depressive symptoms, SOC, emotional and social loneliness	Cross-sectional Social Provisions Scale (SPS), Geriatric Depression Scale (GDS), SOC-13	Dezutter, J. et al. (2013). Sense of coherence, depressive feelings and life satisfaction in older persons: a closer look at the role of integrity and despair. <i>Aging & Mental Health</i> , 17(7), 839–843
				Drageset, J., et al. (2012). The impact of depression and sense of coherence on emotional and social loneliness among nursing home residents without cognitive impairment—a questionnaire survey. <i>Journal of Clinical Nursing</i> , 21 (7–8), 965–974

(continued)

Table 15.1 (continued)

Country	Sample	Variables	Study design and measures	Results and conclusions	First author
Sweden	Older Swedes (mean age 91.2)	Sense of Coherence Negative life events	Longitudinal SOC-13, Barthel's index of activities in daily living (ADL), the mini-mental state examination (MMSE), Geriatric Depression Scale (GDS), The Philadelphia Geriatric Center Morale Scale (PGCMS), medical diagnosis, index of negative life events	Depression symptoms contribute to emotional and social loneliness. Independent of SOC, depression symptoms are associated with emotional loneliness. SOC influence emotional and social loneliness.	Lövheim, H., et al. (2012). Changes in sense of coherence in old age—a 5-year follow-up of the Umeå 85+ study. <i>Scandinavian Journal of Caring Science</i> , 27(1), 13–19
Sweden	75-year-old Swedes	General health, health behaviour, health problems, socio-demographic status, SOC	Cross-sectional SOC-3, VIPS-Well-being, Integrity, Prevention and Safety, The Health Index questionnaire	For the whole group of subjects ($n = 56$), the SOC scores was higher (70.1 vs. 73.7, $p = 0.029$) at the second point measure. The most common negative life events at follow-up were loss of independence in activities in daily living and decrease in cognitive function. A significant correlation between the index of negative life events and changes in SOC over 5 years was found ($p = 0.025$). The more negative life events, the more decrease in SOC. We concluded that there is a risk of decreased SOC and thereby quality of life when negative life events accumulate among very old people. Nursing interventions might play an important role for maintaining and perhaps strengthening SOC among old people exposed to negative life events	Most 75-year-old persons reported their health as good or very good, but they also reported health problems such as: pain, sleeping problems, memory failure, fatigue, poor understanding of their own health and illnesses, problems with elimination patterns and overweight and overweight. 75-year-old persons living alone, those with elementary school education and women reported worse health and well-being than other groups. This study contributes to the knowledge about health issues that concern persons of 75 years of age. It gives a suggestion as to what the district nurses should be aware of when performing preventive home visits

		The mean SOC score was 71.8 ± 10.2 ($\pm S.D.$). SOC was positively related to well-being ($p \leq 0.001$). Heart failure ($p = 0.009$), chronic obstructive pulmonary disease ($p = 0.015$), depression ($p = 0.015$), and osteoarthritis ($p = 0.032$) were significantly associated with low SOC scores, as were high scores on the Geriatric Depression Scale (GDS) ($p = 0.002$). One-year mortality was significantly associated with the SOC score ($OR = 0.945$, confidence interval (CI) = $0.898\text{--}0.995$, $p = 0.032$), while the 4-year mortality was not ($OR = 0.995$, CI = $0.973\text{--}1.018$, $p = 0.674$). The SOC score did not predict depression at 5-year follow-up ($OR = 0.977$, CI = $0.937\text{--}1.018$, $p = 0.267$). Strong SOC was associated with well-being in this group of old people. Low SOC was found among those with diseases known to have a negative influence on daily life	Lundman, B., et al. (2010). Sense of coherence (SOC) related to health and mortality among the very old: The Umeå 85+ study ^a
Sweden	Swedes aged 85–103 years	Longitudinal SOC-13, Philadelphia Geriatric Center Morale Scale (PGCMS), Geriatric Depression Scale-15 (GDS-15), Organic Brain Syndrome Scale (OBS-scale), Montgomery Åsberg Depression Rating Scale (MADRS), Barthel Index, Mini-Mental State Examination (MMSE)	Cross-sectional study SOC-13, General Health Questionnaire (GHQ), Barthel ADL Index, Self-rated health, Subjective health complaints, The Clinical Dementia Rating Scale
Norway	Norwegians aged ≥ 75 years	SOC, psychological distress, health and functional status, subjective health status, cognitive status, personal resources, perceived social support	Of the 214 participants, 23 (10.7 %) reported experiencing psychological distress using a cutoff point of 4 or more on a GHQ case score. Sense of coherence, education and subjective health complaints were the only factors that were significantly related to psychological distress in the multivariate analysis. The general level of psychological distress was low. Low psychological distress was related to an inner strength conceptualized as sense of coherence. Commonly reported risk factors such as sex, household composition and perceived social support, and objective measures of somatic and mental health and bodily dysfunctions were not related to psychological distress

^aLundman, B., et al. (2010). Sense of coherence (SOC) related to health and mortality among the very old: The Umeå 85+ study^a

Thygesen, E., et al. (2009). Psychological distress and its correlates in older care-dependent persons living at home. *Aging & Mental Health*, 13(3), 319–327

structure according to relationships which the community has developed over a period of time (based on Nutbeam, 1998).

At the centre of the community is the house, which is considered to be the primary setting for ageing in place (Felix, de Haan, Vaandrager, & Koelen, 2015; Orrell et al., 2013; Oswald & Wahl, 2005; Sixsmith & Sixsmith, 1991). Older people spend on average 80 % of their time inside the house (Oswald, Wahl, Naumann, Mollenkopf, & Hieber, 2006; Windle, Burholt, & Edwards, 2006). Studies by for example, Felix et al. (2015), Oswald et al. (2006), Percival (2002), Rowles (1983), Sixsmith (1986), and Smith (1994) show a variety of conditions that turn a house into a meaningful place in which to live. The physical structure of the house functions as a stage for daily activities. Basic qualities of the house, like daylight, the level of thermal and sound insulation, and the ease of maintenance are valued for their physical comfort, as well as for providing feelings of privacy, safety, freedom, and independence. A meaningful house enhances feelings of personal control, autonomy, and responsibility, which seem to be pivotal to health development (Koelen & Lindström, 2005) and hence to healthy ageing. People who have a responsibility for day-to-day events, even seemingly small things such as watering plants, or caring for a little bird or dog, have more favourable psychological well-being and show higher health and activity patterns than people without such responsibilities (e.g., Rodin & Langer, 1977). In addition, the house provides a place for personal belongings, which are used to set priorities in life, to create a personal atmosphere, and to keep memories of the past alive. As Rowles and Bernard (2013) argue, one's own home provides security, it holds memories, and it provides the possibility to stay in proximity with friends, neighbours, kin, and local services. As such, one's own home contributes to each of the SOC components: meaningfulness, comprehensibility, and manageability.

The social dimension of the house is shaped through interaction with the surrounding community environment, which first of all includes the near social environment (family, friends, neighbours). Social contacts are seen as an enrichment of life for all age groups: it is fun to do things together. It seems that, especially when people become older, social contacts become more and more important (Oswald & Wahl, 2005; Puts et al., 2007).

A key finding in a qualitative study by Felix et al. (2015), which focused on the experience of the house as a home, was that all participants mentioned the importance of the neighbourhood for feeling at home. Having contact with neighbours, the provision of help and care, and the availability of facilities locally seem to be essential for people's sense of "home". Indeed, many aspects of the community environment are important for older people. This includes the social environment, which provides a feeling of belonging and

social inclusion; features of the built environment, including services such as shops, restaurants, schools, churches and community centres, formal and informal health services, and infrastructure and transportation; and features of the natural environment, such as availability of urban green space and recreation areas (Felix et al., 2015; Stephens, Breheny, & Mansvelt, 2015). Clearly, these environments interact. Spatial design of housing, proximity of shops, church and other services, and infrastructure largely influence the mobility, self-reliance and social participation in the neighbourhood and larger community. A lack of facilities in each of these domains may negatively affect quality of life. Hence, the neighbourhood can provide important GRRs for older people. In their review study, Khoon-Kiat et al. (2013, p. 497) concluded that older people who have access to GRRs are more likely to have a strong SOC, relatively good health and quality of life.

Healthy Ageing in the Community

Important for healthy ageing is that people have the possibility to age in place. Ageing in place can be defined as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income or ability level" (Centers for Disease Control & Prevention, 2009, p. 1). This implies that older people receive adequate support while they continue to live and be involved in the community. Over the past decade, the concept of "age-friendly communities" has emerged. According to the WHO, "in an age-friendly community, policies, services and structures related to the physical and social environment are designed to support and enable older people to 'age actively', that is, to live in security, enjoy good health and continue to participate fully in society. Public and commercial settings and services are made accessible to accommodate varying levels of ability" (WHO, 2002). Menec, Means, Jeating, Parkhurst, and Eales (2011) provided an interesting conceptualization of age-friendly communities (See Fig. 15.1).

According to the authors, age-friendly communities create connections between the older persons and the environment in which they live and vice versa (p. 484). This very much relates to the SOC dimension of meaningfulness. Having a purpose in life is closely related to the maintenance of social relationships and having the possibility to be physically and socially active (Takkinen & Ruoppila, 2001). It enables older people to recognize and use GRRs to strengthen one or more of the three dimensions of SOC—meaningfulness, manageability, and comprehensibility—which in turn enables them to recognize, pick up, and use SRRs as needed in specific encounters with stressors (see Chap. 8).

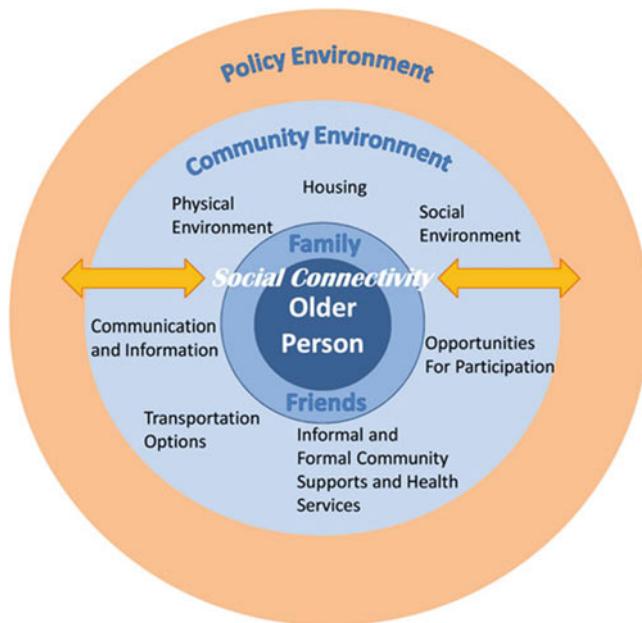


Fig. 15.1 Conceptualizing age-friendly communities (Menec et al., 2011, p. 484)

Hence, the home and neighbourhood provide a basis for consistency (coherence) and GRRs, enhancing meaningfulness, comprehensibility, and manageability. Age-friendly communities provide supportive environments for people while ageing. They provide resources for health in the social and physical environment which—combined with their personal resources—enable people to live their lives despite possible limitations. With limited research on the role and processes of salutogenesis in later life, the model of age-friendly communities may provide a useful framework for future research and practice, towards the facilitation of independence, participation, and well-being of older people.

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