Does an impaired capacity for self-care impact the prevalence of social and emotional loneliness among elderly people?

Irena Canjuga, Danica Železnik, Marijana Neuberg, Marija Božicevic and Tina Cikac

Abstract
Purpose – The purpose of this paper is to explore the impact of self-care on the prevalence of loneliness among elderly people living in retirement homes and older people living in their homes/communities.
Design/methodology/approach – The research was conducted through standardized SELSA-L assessment loneliness questionnaires and the Self Care Assessment Worksheet for self-care assessment. The results were processed using the Kruskal–Wallis test.
Findings – The obtained results have shown that impaired self-care ability affects the prevalence of loneliness among the elderly almost the same in both groups of participants. However, regarding the relationship between the state of health and self-care, only a statistically significant difference in the prevalence of loneliness is found in the case of the participants living in their homes, with the worst health condition affecting the poorer psychological care.
Research limitations/implications – It is necessary to point out the limitations of the research, primarily sample limitations and the selected design of the study. The sample consisted of two different and relatively small groups of participants which could adversely affect the representativeness of the sample and reduce the possibility of generalising the results. The next limiting factor is the age distribution the authors used in the research, where the age of the participants as a very important variable was collected by age range and not precisely which consequently resulted in inequality in subgroup sizes. Thus, the middle age (75–85) covers up to ten years, which is a huge range at an older age and can mean major differences in functional ability, and can impact the self-care assessment.
Practical implications – Nurses are indispensable in care for the elderly and they need to promote and encourage self-care of the elderly through health care. Elderly people living in retirement homes should be allowed to participate equally in health care in order to preserve their own autonomy and dignity. However, to benefit those who live in their homes, nurses should be connected to the local community and thus stimulate various forms of preventative (testing blood sugar levels, blood pressure and educating on the importance of preventive examinations) or recreational activities in the environment of elderly people with the goal of preserving their functional abilities.
Originality/value – The impact of self-care on loneliness was not sufficiently researched, and this paper contributed to understanding the complexity of loneliness phenomena among the elderly with the aim of developing a model of prevention.
Keywords Loneliness, Ageing well, Care homes, Older people, Self-care, Home care
Paper type Research paper

Introduction
Self-care in the elderly
The trend of demographic ageing of the population in the Republic of Croatia has been accompanied by an increase in the number of elderly persons living alone (Rusac et al., 2017), so self-care for these persons is of a crucial importance.
Self-care is a conscious, thoughtful, self-initiative and purposeful activity of individuals based on personal values and goals, and it effectively works to improve the structural integrity, function and development of a person (Kalauz, 2011). Orem’s theory of self-care is one of the most consistent theories as it provides clear clinical guidelines for the planning and implementation of self-care programs (Hashemlu et al., 2015). Orem (1955, in Gavranić et al., 2016, p. 149) states that self-care is a taught behaviour used to satisfy needs, while Železnik (2010, p. 4) states that “self-care is not only a taught, conscious action but partly a subconscious routine”. Furthermore, Sundslie et al. (2012) state that self-care is a multi-dimensional concept of health that may have different interpretations, and thus, as a health resource, it can promote self-responsibility as part of health care. The research carried out by Hoy et al. showed that self-care is crucial for the care of the elderly and can be a decisive factor in managing everyday life in their own homes. It was also found that “the reduced ability of self-care also affects the reduced satisfaction of the elderly’s life” (Borg et al., 2006, p. 607). In the Republic of Croatia, during the last census of 2011, data were collected, among other things, on population with difficulties in performing daily activities and physical mobility. The data obtained show that the proportion of persons with disabilities in daily activities increases with chronological age: in the group of younger and older persons it is 38.44 per cent, in the group of elderly 53.85 per cent and the oldest 67.93 per cent (Draft of Social Welfare Strategy, 2014–2016). These data are essential for further planning of care for the elderly, especially in the promotion of non-institutional care. In fact, care for the elderly person should focus on the preservation of independence, and strengthening the role of his/her family, with the goal of such approaches being prevention of premature and pathological ageing or postponement of a situation in which an older person can no longer live outside an institutional accommodation (Tomek-Roksandić et al., 1999). Self-care can be sub-divided into physical care, psychological care, emotional care and spiritual care.

**Physical care**

Elderly people are faced with important life events such as retirement, which potentially reduces the level of physical activity (Smith et al., 2017). Also, reduced body activity can be caused by the loss of functional ability due to physiological changes during ageing. Body height at older age continues to decrease (Berk, 2008), followed by muscular strength, ranging from 20 to 50 per cent (Doherty, 2003, in Plow et al., 2013), and bone mass decrease, especially in women (Al-Azzawi and Palacios, 2009), as well as reduced strength and flexibility of joints, tendons and ligaments (Berk, 2008). Therefore, physical activity can often be a great effort for the elderly, although it has also been shown to reduce loneliness in older people (Ehlers et al., 2017). It has already been shown that older people with significant social and emotional support at the same time show greater levels of physical activity (Ehlers et al., 2017). The research carried out by Pereira et al. (2016), which included 1,131 elderly people living in 12 retirement homes in Portugal, showed interesting results on the most common self-care activities. The results showed that the most satisfied and least depressed were those who are more independent and self-reliant. Also, the research collected data on some physical activities that most elderly exercised: television (62.9 per cent), exercise (61.2 per cent), gymnastics (59.9 per cent), walking (50.6 per cent), reading (33.2 per cent), craftsmanship (23.5 per cent) and music (11.9 per cent).

**Psychological care**

As mentioned earlier, retirement changes social relationships. Impairment of bodily and cognitive abilities, when present, affects the psychological well-being of the elderly and can lead to loneliness (Grau-Sanchez et al., 2017). Therefore, psychological care is essential for adequate coping with stressful changes. Interesting research was carried out by Paillard-Borg et al. (2009, in Chang, 2014) where they tested five types of activities elderly people usually take up: mental, social, physical, productive and recreational in order to assess how they affect their health. They found that mental activities (writing, reading) are not only the most popular, but also provide the highest level of well-being. “The European Union gave mental health more significance in 2008 so as to promote the importance of mental health, productivity, learning and social cohesion. One of the five priorities that have to do with mental health of the elderly include: promoting active participation of elderly people in community life, including their physical activity and educational...”
opportunities, developing flexible retirement schemes that enable older people to work longer, providing measures that promote mental health and the well-being of elderly people who receive medical and/or social care both in the community and institutions, and, finally, introducing measures of support for carers” (European Union, 2008, in Plavšić, 2012).

**Emotional care**

Research studies in psychology, medicine, sociology, management and other areas have confirmed that emotions are ubiquitous in human life (Trampe et al., 2015, Rudd et al., 2012). In order to understand the importance of emotional care, it is necessary to explain the meaning of the concept of well-being. Well-being can be understood as a balance between the resources of an individual and the challenges that arise (Grau-Sanchez et al., 2017). Namely, the presence of positive emotions and the absence of negative ones, as well as life satisfaction and functioning, are integral part of well-being (Chang et al., 2014). Thus, by participating in activities during their leisure time, elderly people experience an increased sensation of well-being. Leisure activities are defined as desirable and enjoyable activities and are characterised by a sense of freedom and inner satisfaction (Kelly, 1996, in Chang et al., 2014).

**Spiritual care**

When it comes to spirituality, it should be emphasised that spirituality is not the same as religiosity. Spirituality can be defined as a broader and more comprehensive construct than religiosity, where spirituality is a subjective experience that may be within and beyond the religious framework. Religiosity, on the other hand, is a related but different construct and refers to organised behaviour, whose purpose is to apply spirituality to practice (Nelson et al., 2009).

“Spirituality is an expression that is highly used in health and social care of the elderly. Spiritual health can be improved if elderly people are informed about the importance of their spiritual dimension” (Štambuk, 2017, p. 143). Recognising the spiritual dimension can inspire individuals to engage in greater social engagement and to change their lifestyle. It can also prompt better relationships and greater satisfaction in life, and encourage them to find the power to cope with difficult life situations, such as illness, financial difficulties, various losses and even face their own mortality (Štambuk, 2017). Rogers and Wattis (2015) point out that spirituality helps patients to deal with their illness more easily and has a positive impact on the physical and emotional state of the patient. Some researchers suggest that older age diminishes the need for attending church ceremonies, but on the other hand increases a constant participation in unorganised rituals – personal prayer, Bible reading or other literature of religious or spiritual character (Štambuk, 2017).

**Homes for the elderly and infirm (persons in the Republic of Croatia)**

In the Republic of Croatia, homes for the elderly and infirm are public institutions that provide social care, as prescribed by the Social Welfare Act (Bađun, 2017). They primarily provide long-term accommodation. Apart from accommodation, these homes also provide stays (full-day and half-day stay), assisted housing, family assistance and home help and care. According to the founder, there are three types of social care homes for the elderly and infirm: houses founded by the Republic of Croatia; decentralised homes – homes for which the State has transferred responsibility to regional authorities; and private homes run by religious communities, businesses, associations and other domestic or foreign entities (Bađun, 2017). Despite the growing number of homes for the elderly and infirm in the private sector, the state homes accommodated 70 per cent of users at the end of 2014.

**Loneliness in the elderly**

Increasing life expectancy and care for elderly people represent an international challenge and a public health imperative. Therefore, it is necessary to promote healthy, active ageing and well-being (Walters et al., 2017). As for the reduced ability of self-care and the prevalence of loneliness, the research conducted by Burholt and Scharf (2014) showed that “a weaker state of health has an adverse effect on social participation and social resources”; and “insufficient social
contacts are also associated with lower levels of health functioning” (Cornwell and Waite, 2009). The aforementioned factors mediate between health and loneliness. People experience their own loneliness in the way they describe it (Cosan, 2014, p. 106). What is certain is that loneliness is a common phenomenon in old age (Theeke, 2007; La Grow et al., 2012; Luo et al., 2012). It is a predictor of many health problems (Queen et al., 2014). Loneliness, as one of the factors of depression (Doshi et al., 2008; Cacioppo et al., 2010; Hawkley and Capitanio, 2015), presents a greater risk of dementia (Wilson et al., 2007), cardiovascular diseases (Hawkley and Cacioppo, 2010), sleep disorder (Kurina et al., 2011), weakening of the immune system, increased predisposition to inflammation (Wolf and Davis, 2014) and excessive body weight (Lauder et al., 2004). Loneliness may also result in more sensitivity to pain (Jaremka et al., 2013). The research carried out by Holt-Lunstad et al. (2010, p. 9) showed that loneliness was directly associated with mortality, probably because lonely people are more affected by chronic diseases (Thurston and Kuzansky, 2009). In the psychiatric literature, commonly mentioned factors are decline in creative and productive thinking, reduced adaptation to new situations, decline in concentration, memory and attention, poor motivation, developing passivity and withdrawal resulting in the loneliness that is today one of the major problems among older people (Rusac et al., 2016).

Earlier research has shown that self-care in the elderly is related to health and well-being and reduces unnecessary costs of health care (Hashemlu et al., 2015). While the ability of self-care decreases with the rise of chronological age, the aim of this research is to determine the relationship of self-care and the prevalence of loneliness among elderly people, and compare the results between elderly people living in their homes and those living in institutions (retirement homes). Our assumption is that elderly people living in retirement homes will show a lower level of self-care and a higher level of loneliness compared to those living in their homes.

Methodology

Participants

To obtain primary data, a total of 379 participants from Varazdin and Medimurje Counties were selected, with 178 (47.0 per cent) participants living in their homes and 201 (53.0 per cent) residing in six retirement homes. Of the six homes listed, one is state-owned and the other five are private. The difference between state homes and private homes in the Republic of Croatia is in the prices and waiting lists. The preferred choice is usually state-owned homes; however, waiting lists can be long.

As far as gender is concerned, the total number of male participants living at home was 57 (32.0 per cent), and 121 female (68 per cent). The total number of male participants in institutions was 58 (28.9 per cent) and 142 (70.6 per cent) were female. The average age of participants living at home was 71.41 years, and in institutions 80.64 years. Nearly an equal number of participants living at home had completed high school education (44.4 per cent of participants), and elementary education (41.0 per cent of participants). In the homes, the majority of participants had completed elementary education (50.2 per cent), whilst 35.8 per cent had completed high school education. As far as marital status is concerned, almost one-and-a-half of the participants living at home were widowed (44.4 per cent), whilst 43.8 per cent were married. Among those in homes, while there were more widowed (69.7 per cent) the number of married ones amounted to 10.0 per cent.

Data collections and ethics

The study did not include subjects with illnesses such as dementia, schizophrenia, PTSD, advanced stage of malignancy, CVI with aphasia and complete immobilisation. Those interviewed were only those who were able to take care of themselves while carrying out everyday tasks (e.g. feeding, walking, changing, bathing). The research was conducted from the beginning of January till the end of April 2017. Informants were told that participation in the research was anonymous and voluntary and would last approximately 30 min. They were informed that they could withdraw at any time, if they felt that need. To find participants living at home, a list of pensioners who met
the selection criteria was obtained from the Pensioners’ Association. Selected participants were visited by the investigators in their homes. After being informed of the nature of the research they were administered the questionnaire. To those residing in homes, the investigators were provided with a list of potential participants by social workers and occupational therapists. They too were informed about the nature and aim of the research, their right not to take part and withdraw from the study and given assurances about anonymity. Since the first participants who were approached, in both groups, had difficulties in completing the questionnaire after having been given instructions (they found it difficult to write in the questionnaire, they had vision problems, they were tired and so on), and in order to avoid differences in obtained information from the participants, the whole investigation was conducted verbally, i.e. the examiner read questions and recorded the answers. However, those participants who expressed a desire to fill the questionnaire themselves were able to do so.

For the purpose of conducting the research, the oral consent of each participant was obtained in the case of elderly people living in their homes, and the approval of the board of directors was sought for those living in the retirement homes. Participants living in their homes were reached through the Pensioners’ Association and were requested to give their voluntary consent if they wanted to participate in the research. Moreover, each participant was told that their participation in the research was completely anonymous (the questionnaire was completely anonymous without the name and surname or other identification data) and voluntary. They were informed that the results would serve solely for the publication of scientific and professional papers. Participants were aware of the right to withdraw from research at any time, if they wanted so.

Instruments

*Sociodemographic data and health condition.* For the purpose of this research, the authors produced a structured questionnaire aimed at eliciting sociodemographic data that included: age (65–74 years, 75–84 years, over 85 years), gender (male and female), level of education (elementary school, high school, higher education, university), marital status (single, divorced, widowed, married) and place of residence (home/institution or own house). The questionnaire also contained statements regarding the overall health condition of the participant: excellent (I do not have health problems), good (I have only occasional difficulties) and worrisome (I have a serious illness). In addition to sociodemographic data, a survey questionnaire, although not shown in this paper, collected the following data: household type (single or multiple), material status (monthly income), housing size and place of residence (city or village).

*Self-care scale.* This study also included a self-care component according to the Norton scale (Self-Care Assessment Worksheet, 1996). The scale consists of six parts about physical care, psychological care, emotional care, spiritual care, professional (work) care and a balance between self-care and professional care. It was necessary to mark responses on the Likert scale (1 = it never occurred to me, 2 = never, 3 = rarely, 4 = occasionally, 5 = frequently). A higher score means a greater ability for self-care. Some of the claims for physical self-care were: eat regularly (e.g. breakfast, lunch and dinner), exercise, get regular medical care for prevention, take time off when needed, dance, swim, walk, run, play sports, sing or do some other physical activity that is fun, take time to be sexual – with yourself, with a partner, get enough sleep, wear clothes you like, make time away from telephones.

Some of the statements regarding psychological self-care were: make time for self-reflection, read literature that is unrelated to work, do something at which you are not expert or in charge, decrease stress in your life, let others know different aspects of you, notice your inner experience – listen to your thoughts, judgments, beliefs, attitudes and feelings; engage your intelligence in a new area, e.g. go to an art museum, history exhibit, sports event, auction, theatre performance. For emotional self-care some of the statements were: stay in contact with important people in your life, give yourself affirmations, praise yourself, love yourself, re-read favourite books, re-view favourite movies, allow yourself to cry, play with children. Some of the statements for spiritual self-care were: make time for reflection, spend time with nature, find a spiritual connection or community, cherish your optimism and hope, be aware of nonmaterial aspects of life, try, at times, not to be in charge or the expert.
Given that this work deals with self-care as one of the correlates of loneliness, the questionnaires were modified or adapted by reducing the statements relating to spiritual care from the original standardised questionnaire. Components of professional (work) care and balance between self-care and professional care that relate to workplace or professional self-care were also excluded, since the participants do not belong to the active working population but are retired. In the sample of our study, we computed the Cronbach $\alpha$ coefficient for each sub-type of self-care. Therefore, for physical care it is 0.71, for psychological care 0.71, for emotional care 0.69 and for spiritual care (shortened sub-calculus) it is 0.74. The higher total value of the results indicates a higher self-care ability.

**SELSA-S scale of emotional and social loneliness.** We utilised the scale of social and emotional loneliness (SELSA-S Scale according to Stamać, 2003) in this work. It consists of three sub-scales that examine loneliness in the domains of friendly relationships (sub-scales of social loneliness, 13 elements), family relationships (sub-scale of loneliness in family, 11 elements) and love relationships (sub-scale of loneliness in love, 12 elements). There resulted 36 statements that corresponded to the Likert-type scale with 7 degrees from 1 to 7 (1 – I completely disagree, 2 – I mostly disagree, 3 – I partly disagree, 4 – nor do I agree or disagree, 5 – I partly agree, 6 – I mostly agree, 7 – I completely agree). All sub-scales contained both positively and negatively formulated statements, with the larger result indicating greater loneliness. Consequently, we had to decode positive statements into negative ones. In the sample of this study, we computed the Cronbach $\alpha$ coefficient. For social loneliness it was 0.94, for loneliness in love 0.86 and for loneliness in the family 0.91.

**Statistical analysis**

For the purpose of statistical analysis, we used Statistical Programme SPSS (version 21.0, SPSS Inc., Chicago, IL, USA). The significance of all tests, when tested, was set at 5 per cent, which is 95% confidence level.

Prior to analysing the data according to the set research problems, the distribution of normality was verified by the Kolmogorov–Smirnov test and the Shapiro–Wilk test. Considering the deviation of the observed variables from the normal (Gauss) distribution, the testing was performed using nonparametric variants of the test or Kruskal–Wallis test.

**Findings and discussion**

**Self-care and loneliness**

The self-care assessment in this research consisted of assessments of physical care, psychological care, emotional care and spiritual care, and we assessed loneliness through social loneliness, loneliness as lack of romantic relationships and loneliness within the family. The research aimed to determine whether there exists a correlation between self-care and loneliness among the participants living in retirement homes and those living in their own homes.

The results obtained are surprising given that the results are almost the same in both groups of participants; that is, those living in their homes assessed their ability of self-care as negatively as their counterparts living in homes.

Considering the value of significance for social loneliness ($p < 0.001$) and loneliness in family ($p < 0.05$), with respect to physical care among participants living in retirement homes (Table I), it can be seen that the significance of the test is less than 5 per cent. Thus, it can be said, with 95% confidence level, that there is a statistically significant difference in social loneliness and loneliness in family with regard to physical care.

Regarding social loneliness with respect to psychological care among participants living in retirement homes (Table I), it can be seen that the significance of the test is less than 5 per cent ($p < 0.001$). If we look at the relationship between social loneliness and loneliness in family (Table I) with respect to emotional care among participants living in retirement homes, it can be seen that the significance of the test is less than 5 per cent ($p < 0.001$ and $p < 0.002$).
Considering the value of significance between social loneliness and spiritual care (Table I) among participants living in retirement homes, it can be seen that the significance of the test is less than 5 per cent (\(p < 0.001\)). In nursing profession, spirituality has great significance. Rogers and Wattis (2015) stated that spirituality was an important aspect of holistic health care but was often neglected because of the difficulty in conceptualising spirituality, i.e. not knowing how to integrate it into health care. The authors also pointed out that spirituality was important not only to the patients to deal with diseases and crises, but it also helped nurses find their purpose and meaning in their work.

Among participants living in homes (Table II), it can be said that there is a statistically significant difference for all three subcategories of loneliness: social loneliness (\(p < 0.001\)), loneliness in romantic relationships (\(p < 0.001\)), and loneliness in family (\(p < 0.001\)).

### Table I

**Responding to loneliness in terms of self-care for participants living in retirement homes/institutions**

<table>
<thead>
<tr>
<th></th>
<th>Low intensity</th>
<th>Middle intensity</th>
<th>High intensity</th>
<th>Total (examinees)</th>
<th>(p^*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arithmetic mean ranking (physical care)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social loneliness</td>
<td>142.50</td>
<td>89.09</td>
<td>52.14</td>
<td>166</td>
<td>&lt; 0.001</td>
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<tr>
<td>Loneliness in romantic relationships</td>
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<td>Loneliness in family</td>
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<tr>
<td>Social loneliness</td>
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<td>86.54</td>
<td>75.92</td>
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</tr>
<tr>
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<td>88.65</td>
<td>74.83</td>
<td>179</td>
<td>0.089</td>
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<tr>
<td>Loneliness in family</td>
<td>120.71</td>
<td>86.98</td>
<td>85.04</td>
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<td><strong>Arithmetic mean ranking (emotional care)</strong></td>
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</tr>
<tr>
<td>Social loneliness</td>
<td>147.50</td>
<td>98.81</td>
<td>48.70</td>
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<td>79.96</td>
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<td>Loneliness in family</td>
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</tr>
<tr>
<td>Social loneliness</td>
<td>143.10</td>
<td>94.38</td>
<td>73.25</td>
<td>181</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Loneliness in romantic relationships</td>
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<td>92.01</td>
<td>80.25</td>
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<tr>
<td>Loneliness in family</td>
<td>100.35</td>
<td>92.07</td>
<td>81.47</td>
<td>178</td>
<td>0.372</td>
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</tbody>
</table>

**Notes:** aLow intensity: 0–49 per cent; middle intensity: 50–79 per cent; high intensity: 80–100 per cent

### Table II

**Difference in responses to loneliness with respect to self-care for participants living in their homes/households**

<table>
<thead>
<tr>
<th></th>
<th>Low intensity</th>
<th>Middle intensity</th>
<th>High intensity</th>
<th>Total (examinees)</th>
<th>(p^*)</th>
</tr>
</thead>
<tbody>
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<td>Social loneliness</td>
<td>136.75</td>
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<td>Loneliness in romantic relationships</td>
<td>136.50</td>
<td>81.35</td>
<td>59.07</td>
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<td>0.001</td>
</tr>
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<td>Loneliness in family</td>
<td>135.25</td>
<td>80.83</td>
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</tr>
<tr>
<td>Social loneliness</td>
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<td>84.96</td>
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<tr>
<td>Social loneliness</td>
<td>137.25</td>
<td>92.60</td>
<td>53.01</td>
<td>170</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Loneliness in romantic relationships</td>
<td>134.00</td>
<td>88.25</td>
<td>59.68</td>
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<tr>
<td>Loneliness in family</td>
<td>137.25</td>
<td>88.66</td>
<td>70.10</td>
<td>171</td>
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<tr>
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</tr>
<tr>
<td>Social loneliness</td>
<td>153.50</td>
<td>96.02</td>
<td>69.60</td>
<td>166</td>
<td>&lt; 0.001</td>
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<tr>
<td>Loneliness in romantic relationships</td>
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<td>95.81</td>
<td>66.70</td>
<td>162</td>
<td>&lt; 0.001</td>
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<tr>
<td>Loneliness in family</td>
<td>160.75</td>
<td>94.16</td>
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<td>0.001</td>
</tr>
</tbody>
</table>

**Notes:** aLow intensity: 0–49 per cent; middle intensity: 50–79 per cent; high intensity: 80–100 per cent
romantic relationships ($p < 0.001$) and loneliness in family ($p < 0.005$), with regard to physical care. Moreover, a statistically significant difference can be seen in social loneliness and loneliness in family ($p < 0.001$ and $p < 0.038$) with respect to psychological care.

If we look at the relationship between social loneliness ($p < 0.001$) and loneliness in family ($p < 0.002$), with respect to emotional care among participants living in retirement homes, it can be seen that the significance of the test is less than 5 per cent (Table I). If we look at the relationship between emotional care (Table II), the significance of the test is less than 5 per cent for all three subcategories of loneliness: social loneliness ($p < 0.001$), loneliness in love ($p < 0.001$) and loneliness in family ($p < 0.015$).

Considering the value of significance between loneliness and spiritual care (Table II) among participants living in their house, the significance of the test is visible in all three subcategories of loneliness, that is, social loneliness ($p < 0.001$), loneliness in love ($p < 0.001$) and loneliness in family ($p < 0.001$). Therefore, a nurse in his/her professional work should promote self-care in a way that educates, motivates and recognises the preserved individual’s (older person) abilities to stay as independent as possible in the environment as long as possible. In order to preserve self-care of elderly people, it is necessary to possess knowledge and self-care abilities, but also to have an adequate support system of the environment and local communities (Rabie and Klopper, 2015; Barke, 2017). In addition to contributing to the promotion of self-care, the community/environment will also reduce the prevalence of loneliness, especially among elderly people living alone in their homes. However, the environment does not always act protectively to preserve the well-being of the elderly. In fact, own home communities, apart from having to act favourably and facilitate physical care, should also facilitate the fulfilment of needs at the level of psychological and emotional care. However, to achieve this, elderly people need localised community-based assistance through activities that include care through health, care and household maintenance (Davey, 2006), which is obviously not achieved, as evident from our research.

Community support for the elderly has several advantages, such as, reducing social isolation and loneliness, promoting independence, choice and control, providing emotional support and generating benefits (Brookes et al., 2016). Valtorta and Hanratty (2012) stated that fewer deaths were reported among elderly patients who were in institutions than among those who were healthier and lived in their homes or in the community. These deaths sparked much discussion and thinking about treating older people in the community (Valtorta and Hanratty, 2012). Furthermore, critical analyses of policies promoting “aging in places” emphasise the tension between the idealisation of “community care” and “family support” on the one hand and the reduction of costs on the other, which may mean that elderly people do not have the right choice in the sense of preferred support and lifestyle.

**Self-care and health**

As mentioned, self-care consists of various activities that promote emotional, spiritual and physical health in order to preserve the quality of life and prevent diseases (Rabie and Klopper, 2015). Physical activity and mental health are two significant predictors of the quality of life of elderly people (Demura and Sato, 2003; Turpie et al., 2017); however, ageing often decreases mobility and material condition, thereby, increasing the incidence of mental and physical illnesses which reflects on the quality of life (Hashemlu et al., 2015).

If the level of significance in Table III is considered, only the statistically significant difference between the psychological care and the general health status of the participants living in their house is visible, with the value of Fisher’s exact test being 0.005, which is less than 0.05; therefore, the participants who assessed their health status as worse, also assessed the reduced ability of self-care in the area of psychological care. Also, our research shows a statistically significant difference between the general health condition and the ability of self-care precisely among participants living in their homes. Elderly people experiencing loneliness or social isolation at the same time have a higher risk of diseases (Valtorta and Hanratty, 2012). In addition, 1,203 healthy elderly people living in their homes in Stockholm have shown that support of the environment and social network protects them from dementia, as opposed to lonely individuals.
who are twice as likely to develop dementia (Wilson et al., 2007). Self-care is of vital importance for the elderly because it represents the basic level of care based on their own abilities (Godfrey et al., 2011).

**Practical applications**

Self-care is important for preserving the independence of the elderly and allows a healthy and active aging. Our study shows that both groups of patients who demonstrated self-care ability also still reported a higher level of loneliness. Participants living in retirement homes, work therapists, social workers, volunteers and family members should encourage elderly people to carry out those activities (bathing, dressing, feeding, walking, reading, socializing, praying, singing, making handicrafts, gardening and other) that they were doing before they were placed in a retirement home. They should also be included in new activities (e.g. going on trips, visiting museums, theatres) and be encouraged to acquire new knowledge (e.g. learning how to use computers and the internet). Nurses, through the implementation of health care, should recognize functional capacity of elderly people and involve them in health care. As for the participants living in their homes, great emphasis should be placed on the family, visiting nurses, but also the local community. If an elderly person does not live with family members, it is necessary to make them realize how important visits can be, or at least a phone call. Local communities should provide a variety of facilities for elderly people such as trips (visits museums, theatres, cinemas, spa), preventive actions (testing blood sugar and blood pressure, vision and hearing testing and other) and ensuring intergenerational interaction (e.g. kindergarten children visiting elderly persons) especially those elderly people who are living alone or in a retirement home.

**Research limitations**

The sample consisted of two different and relatively small groups of participants which could adversely affect the representativeness of the sample and reduce the possibility of generalizing the results. Thus, the size of the sample and the fact that the research was carried out at a given

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**Table III** Difference in responses to self-care as regard to health status for participants living in their homes/retirement home

<table>
<thead>
<tr>
<th>Number of informants (%)</th>
<th>How do you generally describe your health?</th>
<th>Physical care</th>
<th>Psychological care</th>
<th>Emotional care</th>
<th>Spiritual care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excellent (I do not have health issues)</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
</tr>
<tr>
<td></td>
<td>Good (I have occasional minor issues)</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
</tr>
<tr>
<td></td>
<td>Worrisome (I have a severe disease)</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
<td>K D K D K D</td>
</tr>
<tr>
<td>Low intensity</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>5 (4.0)</td>
<td>2 (2.0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Middle intensity</td>
<td>6 (66.7)</td>
<td>6 (75.0)</td>
<td>97 (77.0)</td>
<td>75 (76.5)</td>
<td>21 (87.5)</td>
</tr>
<tr>
<td>High intensity</td>
<td>3 (33.3)</td>
<td>2 (25.0)</td>
<td>24 (19.0)</td>
<td>21 (21.4)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>Low intensity</td>
<td>0 (0.0)</td>
<td>1 (11.1)</td>
<td>4 (3.1)</td>
<td>6 (5.6)</td>
<td>3 (12.0)</td>
</tr>
<tr>
<td>Middle intensity</td>
<td>5 (50.0)</td>
<td>7 (77.8)</td>
<td>111 (84.7)</td>
<td>93 (86.1)</td>
<td>21 (84.0)</td>
</tr>
<tr>
<td>High intensity</td>
<td>5 (50.0)</td>
<td>1 (11.1)</td>
<td>16 (12.2)</td>
<td>9 (8.3)</td>
<td>1 (4.0)</td>
</tr>
<tr>
<td>Low intensity</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>4 (3.0)</td>
<td>4 (3.7)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Middle intensity</td>
<td>5 (50.0)</td>
<td>7 (77.8)</td>
<td>103 (76.9)</td>
<td>80 (73.4)</td>
<td>24 (88.9)</td>
</tr>
<tr>
<td>High intensity</td>
<td>5 (50.0)</td>
<td>2 (22.2)</td>
<td>27 (20.1)</td>
<td>25 (22.9)</td>
<td>3 (11.1)</td>
</tr>
<tr>
<td>Low intensity</td>
<td>0 (0.0)</td>
<td>1 (11.1)</td>
<td>1 (0.8)</td>
<td>5 (4.7)</td>
<td>1 (3.7)</td>
</tr>
<tr>
<td>Middle intensity</td>
<td>5 (50.0)</td>
<td>4 (44.4)</td>
<td>63 (48.1)</td>
<td>69 (64.5)</td>
<td>14 (51.9)</td>
</tr>
<tr>
<td>High intensity</td>
<td>5 (50.0)</td>
<td>4 (44.4)</td>
<td>67 (51.1)</td>
<td>33 (30.8)</td>
<td>12 (44.4)</td>
</tr>
</tbody>
</table>

**Notes:** *Fisher’s exact test. K examinees living in their houses; D examinees living in retirement homes. Low intensity: 0–49 per cent; middle intensity: 50–79 per cent; high intensity: 80–100 per cent*
moment rather than over a longer period of time limits the validity of the estimates and prevents the dynamic analysis, i.e. the conducted research provided only an insight into the present state of the participant and thus prevented the measurement of the actual durability of loneliness. Furthermore, the data interpreted were not only collected by the authors of this work but also by social workers and work therapists (for participants in retirement homes) and this part of data gathering was carried without any control of the authors of this research. The next limiting factor is the age distribution we used in the research, where the age of the participants as a very important variable was collected by age range and not precisely which consequently resulted in inequality in subgroup sizes. Thus, the middle age (75–85) covers up to ten years, which is a huge range at an older age and can mean major differences in functional ability, and can as such affect the assessment of self-care.

Suggestions for future research

As an extension of this research, a similar research on a much larger sample should be carried out. Participants were divided into three groups, so the gathered data are not relevant enough since there are big differences in the functional abilities of the elderly, especially 75–84 years of age. In addition, research should be carried out through a longer period of time to determine differences in responses with regard to the length of stay of the elderly in a retirement home. Our research included subjects regardless of the length of their stay in a retirement home, but if the participants living in their homes and retirement homes had been questioned through a longer period of time and with the same questions, we would have got more accurate and relevant insight into the possible decline in self-care and the increase in loneliness that might be associated with staying in retirement homes.

Conclusions

The results of this study lead us to the conclusion that elderly people living in homes, as well as those in retirement homes, have almost equally demonstrated that their reduced ability of self-care affects the rise of social and emotional loneliness. Concerning the above-mentioned results among elderly people in homes, they were also expected to be excluded from their social environment due to the loss of independence and ability for self-care, but the results of those living in their homes were quite surprising, given that elderly people showed an associated reduced ability for self-care and increase of loneliness as well as the people living in retirement homes. Based on the results, the social support of local communities and the support of the families of the elderly living in their homes appear to be of paramount importance.

References


Chang (2014), available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC4467537


Further reading


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