

# Systematic Review: How does social isolation among single elderly people effect on morbidity?

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## ABSTRACT

**Aim:** Conducting a comprehensive systematic review of world sources to create a more complete understanding of the problem of loneliness among older people and to identify the relationship with chronic morbidity.

**Methods:** We have reviewed current sources over a ten-year period. A systematic review was conducted in Medline, Embase, PsycINFO, Cumulative Index to Nursing and Allied Health Literature, Applied Social Sciences Index and Abstracts, LILACS, OpenGrey, and Cochrane Library on peer-reviewed studies and doctoral dissertations published from 2010 to 2019 the impact of social exclusion and / or loneliness on the development of morbidity for people aged 60 years and older.

**Conclusions:** This systematic review aimed at comparing the presence of social isolation or loneliness in older people over 60 years of age with the development of chronic morbidity. A deep understanding of loneliness will allow us to determine what type of assistance will be more effective, and we will be able to improve the condition and quality of social contacts. In addition, we will include studies conducted over the past three decades without any linguistic or geographical restrictions.

**Keywords:** loneliness, social isolation, gerontology, morbidity, family

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## INTRODUCTION

Loneliness is “an unpleasant experience that occurs when a person’s network of social relations is deficient in some important way, either quantitatively or qualitatively”<sup>1</sup>. Loneliness could induce a number of detrimental effects on physical as well as mental health, such as a heart attack (Ong, Rothstein, & Uchino, 2012); high blood pressure<sup>1</sup>; depression; or dementia<sup>1,2</sup>. Older people have been identified as most vulnerable to loneliness, and a number of risk factors have been identified, including, for example, poor physical health and increasingly limited physical abilities, the decrease of intimate social relations, and societal or cultural factors<sup>3,4</sup>.

The prevalence of loneliness among older individuals varies across studies as a function of the (a) measure of loneliness used, (b) populations studied, and (c) age group and sample sizes considered. For example, using a single-item direct question from the 2002 Health and Retirement Study (HRS; n=8,932), Perissinotto et al<sup>5</sup>, reported that 29% of respondents aged 75 years or older were lonely, defined as endorsing one of the loneliness items at least ‘some of the time.’ Prevalence estimates have been reported across European countries. For instance<sup>6</sup> compared estimates of loneliness in older adults (aged 60 years and older) in 25 European countries (n=47,099). Using a single-item measure of loneliness (i.e., ‘How much of the time during the past week did you feel lonely?’), the authors estimated that the prevalence of chronic or frequent loneliness was highest in former Soviet states, including Ukraine (34%), Russia (24.4%), Hungary (21.1%), and Poland (20.1%). Likewise, using data from a large Norwegian sample (n=14,743), Nicolaisen and Thorsen<sup>7</sup> estimated that 30.2% of Norwegian adults over the age of 65 years reported being lonely, as measured by a score of 2 or more (answer categories range from 1 = not

lonely to 6 = intensely lonely) on the 6-item dJG Loneliness Scale. Studies conducted in Asia have reported similar prevalence estimates of loneliness in relation to age. Researchers have reported similar prevalence estimates in Mediterranean countries. For instance, Stessman et al<sup>8</sup> investigated feelings of loneliness among a representative sample of Israeli residents in Jerusalem aged 70 years and older. Using a single global measure of subjective loneliness (i.e., ‘How often do you feel lonely?’), the authors estimated that at the age of 70, 78, and 85 years, the prevalence of loneliness was 95(27.9%), 124(23.9%), and 169(24%), respectively. In sum, the available evidence supports the conclusion that prevalence estimates of loneliness at older ages are high enough to justify intervention; however, estimates vary across studies, reflecting the different measurement approaches and populations sampled.

**Aim:** We have reviewed current sources over a ten-year period. A systematic review was conducted in Medline, Embase, PsycINFO, Cumulative Index to Nursing and Allied Health Literature, Applied Social Sciences Index and Abstracts, LILACS, Open Grey, and Cochrane Library on peer-reviewed studies and doctoral dissertations published between 1980 and 2019 the impact of social exclusion and / or loneliness on the development of morbidity for elderly people.

**Measurement of Loneliness:** Researchers have distinguished loneliness from related concepts such as living alone, solitude, and social isolation<sup>9</sup>. At its most basic level, *social isolation* has been defined as an objective state of having minimal social contact with other individuals, whereas *loneliness* reflects a subjective state of lacking desired affection and closeness to a significant or intimate other (i.e., emotional loneliness) or to close friends and family (i.e., relational loneliness). Moreover, although

sometimes considered synonymous with *living alone*, loneliness and living alone are related but not overlapping categories. Similarly, researchers have distinguished loneliness from the experience of being alone or *solitude*. The latter reflects a state of social isolation that involves a voluntary distancing from one's social network, whereas loneliness is involuntary and more closely associated with deficits in the perceived quality of one's social interactions<sup>9</sup>. Single-item questions of loneliness – such as those found in longer versions of the Center for Epidemiologic Studies Depression (CESD) scale, wherein respondents are asked 'Do you feel lonely?' – are the most common and widely used measures of loneliness. Although face valid and well-suited for large-scale, population-based studies, the use of single-item direct measures is likely to result in underreporting due to the stigma associated with being identified as lonely<sup>10</sup>. Among the most common and widely used multidimensional scales tapping loneliness are the UCLA Loneliness Scale<sup>11</sup> and the de Jong Gierveld (dJG) Loneliness Scale<sup>11</sup>. Unlike single-item direct measures of loneliness, these scales consist of items that exclude any reference to loneliness. Widely used in Europe, the dJG Loneliness Scale probes both emotional and social dimensions of loneliness with items such as 'I experience a general sense of emptiness', and 'There are enough people I feel close to'. Whereas emotional loneliness involves the absence of an intimate attachment (partner, sibling, close confidant), social loneliness reflects the absence of a broader community or social network (friends, coworkers, and neighbors). The social loneliness items found in the dJG scale (e.g., 'There is always someone I can talk to about my day to day problems'; 'There are enough people I feel close to') have parallels with items from the UCLA scale (e.g., 'I have nobody to talk to'; 'I am no longer close to anyone'). Neither scale sets a time frame for responses to items. Finally, although both the UCLA Loneliness Scale and the dJG scale conceptualize loneliness as subjective, they differ in whether they view loneliness primarily as a global, unidimensional construct (UCLA) or as multifaceted phenomenon with separate emotional and social components (dJG). Overall, the available evidence supports the need for further measurement research with older adults that addresses the dimensionality of UCLA and dJG scales.

The family APGAR scale was developed by Smilkstein, Ashworth, and Montano (1982). The satisfaction assessment of the elderly with chronic illness regarding family is essential. This study aims to describe the socio-demographic and clinical profile of elderly people with chronic illness and correlate with perceived family support. These questions allow for the assessment of the individual's satisfaction with their family functioning, based on elements considered essential in the family unit, according to the acronym APGAR:

A - Adaptability intra-family – refers to the sharing of resources, as well as the degree of satisfaction with the attention received;

P - Participation – includes joint decision making and family communication when problem solving;

G - Growth – essentially refers to the realisation of emotional growth due to the freedom within the family to change roles;

A - Affection – includes the individual's satisfaction regarding intimacy between family members and the family interactions;

R - Resolution – refers to the sharing of time and satisfaction with the commitments that family members establish".

The APGAR questionnaire consists of five questions regarding the components of family function, with three possible answers ("almost always", "sometimes", "almost never") the score varies between zero and two points. The sum can be zero to ten points and families can be characterized as: a functional family (7-10) or dysfunctional family (< 6).

**Family, Social Support And The Elderly:** Research in many cultural settings shows that older people prefer to be in their own homes and communities<sup>12</sup>. Multigenerational family involving more than two generations are available due to increased life expectancy of people<sup>12</sup>. Even though there is increase in family generations, families are fragmented into small units and divided in different family patterns due to marriage, divorce, step family relations. Similarly, it has even increased with family trend to live separately, family member seeking job and studying in different places. This creates fewer young family members available to provide care to the elderly people. Also, there is decline in physical and cognitive functioning in old age. It causes institutionalization of elderly in nursing or elderly home<sup>12</sup>.

The evidence clearly shows that older Australians are more likely to live on their own. At the time of the 2011 Census, 24.3% of the population lived in a lone person household<sup>13</sup>. For people aged 75-84 years old, that figure rose to 29.7% and for those aged over 85, it was more than a third (35.2%). Older women (32%) were much more likely to live alone than older men (17%) – and 59 per cent of older people who lived alone reported that they were widowed<sup>14</sup>. As well as being more likely to live by themselves, older people are more likely to go out less often. According to the latest Productivity Commission Report on Government Services, in 2012 16.2% of people aged 65 and over did not leave home or did not leave home as frequently as they would have liked. Among older Australians with a profound or severe disability, almost half (46.8%) did not leave home or did not leave as often as they wished<sup>13</sup>. There is also strong evidence which demonstrates that older Australians generally have greater healthcare needs than their younger counterparts. Analysis conducted by the Australian Institute of Health and Welfare (AIHW) shows that in 2008-09, the average healthcare costs of adults aged 85 and over were almost 20 times higher than for the average child aged 5-14<sup>15</sup>. In addition, more than half of Australians aged 65 and over live with disability, compared with just 16% of people aged 25-64 and 7% of those aged under 25<sup>15</sup>. Taken together, these indicators suggest that older Australians are at greater risk of experiencing social isolation and loneliness.

Another study analyzed a total of 236,490 respondents had usable data on the Kessler-10. The mean age was 61.7 years ( $SD=10.7$ , range=45-106 years), and almost 53% were female. One quarter had a degree or higher qualification, just over 90% spoke English at home, the majority were partnered (76.5%), living in an urban area

(70.6%), had had children (88.4%), and were not working more than 14 hr per week (54.9%). In terms of health, just over half rated their health as either excellent or very good (54.3%) and had, on average, reasonably high levels of physical functioning (median=9.5 for a maximum 10)<sup>16</sup>. There were just over 18,000 respondents (7.6%) who were classified as at high or very high risk of developing an anxiety or depressive disorder according to their Kessler-10 score. The youngest age group (45-54 years) reported the highest prevalence of 10.2%, which gradually decreased to 4.9% in the 65-to-74-years age group and then rose to 8.2% in the oldest age group (85+ years)<sup>16</sup>.

In 2015, Japan revised the Long-Term Care Insurance System, which implemented daily life support service for older adults provided by non-professionals. Daily life support is important to prevent older adults, especially, frail older adults<sup>17</sup> from deteriorating. The present study focused on older adults who require assistance, but are not enrolled under care service or other formal support systems. Meanwhile, Japan has a unique system of commissioned welfare volunteers called "Minsei-iin." Commissioned welfare volunteers are familiar with neighborhoods, and function as intermediaries and refer persons or family units requiring assistance to formal or informal care providers based on Long-Term Care Insurance. Sometimes, they are required to personally counsel or support the persons or family units requiring assistance. Such assistance varies and particularly includes health, financial, and personal matters. They are designated in the community and are officially assigned without salary by the local government. The effectiveness of such support is expected as Noguchi et al<sup>18</sup> reported that home visits by commissioned welfare volunteers reduced the risk of psychological distress. The demand and supply for meals-on wheels depended on the area because of the resource varieties. Although social participation including attending community salons is indicated to improve older adult health<sup>19</sup>, the rate of provided "caregiver's salons" was not high in the present study. Recently, community salon activities and accompanying research has increased in Japan<sup>20</sup>. In the near future, further findings will clarify the effectiveness of community salons for older adults. Wu and Lu outlined the requirement for home-based telecare service for older adults<sup>21</sup>. Currently, some new devices and systems have been developed and should be utilized for persons and families requiring assistance, for immediate and more effective assistance<sup>22</sup>.

In another study, Okoye<sup>23</sup> highlighted the important of friendship and self-belonging in improving well-being of an elderly who is suffering from depression, hypertension and isolation. Okoye<sup>23</sup>, found that, an elderly has on their hands plenty of time which should be productively filled with lots of economic activities. Elderly women fare better than men in finding something to do so as to keep them socially and psychologically active. They mostly engage in helping daughters and sons look after the grandchildren. Additionally, Okoye<sup>23</sup>, found that every community usually create a community service center capable of catering for old people who may have lost the ability to cope with daily living. The community center according to him usually organizes and arranges necessary care for the old people when all their families and relatives have gone to work.

Additionally, Sarni<sup>24</sup>, found that, he showed how important it is to understand how information technology can be used to assist elderly people suffering from dementia. In addition, it is imperative to include people suffering from dementia and their informal or formal caregivers in the design process of elderly dementia require assisted information technologies which is reliable, affordable, private, easily to use and portable for the elderly, this will improve the psychosocial functioning of the elderly in old people's homes and those on day care services. According to Oyinlola and Folaranmi<sup>25</sup>, lower socio-economic status has been linked consistently to diminished physical and mental health partially because life at lower socio-economic levels appears to impair health promoting self-conceptions which subsequently place the old people to the nursing homes.

In a diary study, heightened daily feelings of loneliness preceded poorer nightly sleep quality<sup>26</sup>, and poor sleep exerted a small but significant effect on next-day feelings of loneliness. This recursive loop operates outside of consciousness, signifying that some effects of loneliness are not easily controlled. Executive control is also impaired in older adults as it was in younger age groups. Loneliness has been shown to contribute to cognitive decline and dementia<sup>27</sup>, effects that have a profound impact on quality of life and further distance the sufferer from his or her social network. Gow et al<sup>28</sup> examined cognitive functioning in a cohort of 70 year olds and found a significant inverse association between loneliness intensity and general cognitive ability, processing speed and memory. In another study of older adults (mean age=75 years), loneliness was associated with global impairments in cognition independent of depression and social network integration<sup>27</sup>.

In older age, lonelier adults report poorer health<sup>29,30</sup>. In addition, lonelier older adults are at greater risk for morbidity and mortality<sup>31-34</sup>, although one study found that the effect of loneliness was not independent of the also significant mortality risk associated with objective social isolation (i.e., infrequent social contact and civic participation)<sup>35</sup>. The severity of the effects is often linked to the frequency or duration of exposure to feelings of loneliness. In the Health and Retirement Study, loneliness predicted all-cause mortality over a 4-year follow-up, an effect that was greater in chronically than situationally lonely adults [35]. Cortisol is regulated by the hypothalamic-pituitary-adrenocortical (HPA) axis, and a dysregulated HPA axis also contributes to inflammatory processes that play a role in hypertension, atherosclerosis and many other chronic diseases of ageing. Regulatory control of gene expression contributes to HPA functioning, and gene expression profiles differ as a function of loneliness<sup>36</sup>.

Among the social determinants of physical and mental health in populations of older adults, strong social networks with high levels of social support generally represent a protective factor for maintaining good health and quality of life in old age<sup>37,38</sup>. Another study of over 3400 older adults in the USA confirmed that satisfaction with social support is related to good self-rated health (SRH)<sup>39</sup>. The impact of social relations on various indicators of health and well-being appears to vary depending on the nature of social ties (e.g., friends, children, family members and partner)

and the quality of the relationships, a complexity that calls for further study<sup>40-42</sup>. To this day, we have limited knowledge about the relationships between social support and health outcomes beyond these particular socio-cultural contexts. The different social norms and expectations surrounding social relations in cross-cultural samples of older adults further complicate this field of study<sup>43</sup>. Research across ethnic or racial groups in the USA<sup>44,45</sup> demonstrated differences in correlates of health and quality of life among these groups, which suggest that there will be differences in different regions of the world<sup>46</sup>. Comparisons across populations allow us to detect the features of the social environment that affect most (or all) individuals in a population and have therefore little variance (or are invariant) within that population<sup>47</sup>. Among Latin American participants, the strongest associations were seen when support came from extended family, children and partner, whereas support from friends did not play a significant role. In fact, among Latin Americans, having high levels of social support from family and partner was related to good health, and having high support from children was also related to less depression and better quality of life<sup>47</sup>. These observations are in agreement with previous research conducted in Canada<sup>48</sup>. Moreover, comparing two francophone older Canadian populations, one from a working-class neighborhoods population of Montreal, and the other from the middle class city of Moncton, New Brunswick, Zunzunegui et al<sup>48</sup> found that in Montreal, having family and children was associated with good health, whereas having low support from children was associated with poor health. Networks of friends played a role only for those with good physical and cognitive function. In Moncton, the associations were different because only relationships with friends seemed to play a role in health. The authors concluded that support from children was more salient in socially and materially deprived areas than in more affluent environments. Levels of social capital are high in Canada and society provides the services that family members provide in other cultures<sup>48</sup>. In addition, Canadians have a relatively strong system of public and private social services and old age pensions, which provide some economic security to older adults. Consequently, there is relatively less need to rely on family. It appeared that the quality of the social support provided was more important in Latin America, especially when this support came from family members, children and cohabiting partner. In fact, older adults in Latin America appear to place more emphasis on emotional support from their children, and social contact and affection with grandchildren has been found to influence their sense of well-being<sup>49-51</sup>. Latin American older adults live in societies with strong family intergenerational interdependence but limited economic security, social protection and social services<sup>52</sup>. Social integration in society occurs within the family around which the social life pivots<sup>53,54</sup>. Family interdependence means that support flows between generations in multigenerational households.

Older people are faced with greater losses, given fewer social resources and less adequate social support, in both subjectively perceived support and the frequency of contact<sup>55</sup>. Physical activity (PA) also plays a key role in maintaining health and mobility in old age [56-58]; the

evidence for the health benefits of PA is stronger for adults 65 years and older than for any other age group because the consequences of inactivity are more severe for this age group. Furthermore, older people with a high-level social support may achieve the recommended PA more easily than those with lower social support levels, thereby maintaining health and physical function<sup>59</sup>. Social support consists of addressing tangible needs, such as assistance with transportation, home and personal care, as well as emotional support such as being listened to, understood, and comforted<sup>60</sup>. Social support has been recognized as an important social determinant of health because it assists individuals in reaching their physical and emotional needs, and it reduces the effects of stressful events on their quality of life<sup>61</sup>. More recently, many studies have demonstrated a relation between social support and health including mortality, chronic diseases, cognition, depressive symptoms, and well-being<sup>62-64</sup>. Self-rated health (SRH) is often considered to be a valid, reliable, and robust measure of health as well as a predictor of mortality among older people<sup>65</sup>. For instance, support from friends or neighbors is particularly important for older people because it is flexible and provides a better opportunity to be understood and share experiences<sup>66</sup>. Lin et al<sup>66</sup> found that 1 important factor that influenced the successful aging of Taiwan's elderly population was participation in social activities. A comparative study conducted among older people in Western Finland and Northern Sweden showed that individual-level social capital including social participation was significantly associated with SRH<sup>67,68</sup>. Another cross-sectional study involving 2731 participants in Japan concluded that participants with higher SRH had sufficient social support [69]. Because social support is regarded as the mechanism that links social capital and health outcomes<sup>70</sup>. Furthermore, individual features of social support can be considered to be a resource for the health and well-being of older people<sup>71</sup>. Available literatures, despite differences in research designs and targeted populations, suggest that to understand the social support and health of older people, special attention should be paid to their socioeconomic status (SES)<sup>72,73</sup>, which is measured by income, wealth, education, work, social insurance, SRH, out of- pocket costs, and transportation to health facilities<sup>74</sup>. Several studies have to date found the health of older people in China is also influenced by demographic characteristics and SES, such as age, sex, marital status, living condition, chronic diseases<sup>75,76</sup>. From the worldwide, the existence of wide socioeconomic differences in health and well-being shows how extraordinarily sensitive health and well-being remain to socioeconomic circumstances<sup>77</sup>. First, sex and socioeconomic characteristics affect the incidence of disability or that risk factors are different between men and women among older people. Previous studies demonstrated that women were more likely to report poor SRH and to have a higher prevalence and incidence of disability compared with men at older ages<sup>78</sup>. Other studies that were conducted in different countries also showed that women might have a higher risk of disability in their later years than men<sup>79</sup>. Santosa et al have reported in low- and middle-income countries (LMICs) that women have longer life expectancy (LE) but proportionally less years of disability-free life expectancies (DFLEs) than

men in different age groups among people older than 50 years, and are more evident in India, Ghana, Mexico, and the Russian Federation [80]. Ng et al<sup>81</sup> have confirmed the existence of sex differences in SRH in LMICs even after adjustments for differences in demographic and socioeconomic factors, and suggested that sex differences in health differed across the Health and Demographic Surveillance System (HDSS) sites. However, Rodrigues et al<sup>82</sup> found that after adjusted variations for sociodemographic, socioeconomic, and health factors, there was no difference between the sexes in the incidence of functional disability among elderly people, which may give us more clues to explore sex differences in health. Second, socioeconomic gradients in health are associated with different material circumstances. Chaves et al<sup>83</sup> found that higher income was associated with successful aging among healthy elders of southern urban area in Brazil. Demakakos et al<sup>84</sup> showed wealth inequalities in mortality at older ages were sustained and wealth appeared to be more strongly associated with mortality than other socioeconomic position measures. Some authors believed that education could be another good indicator of SES because it is relative fixed early adulthood. At older ages, income/wealth reflects the resources accumulated in the past that is highly related with individual health experiences<sup>85</sup>. However, as people after 65 would tend to be out of the labor force, the effects of work on health may be undirected<sup>86</sup>. Brown et al<sup>87</sup> found that higher educational attainment has been associated with mortality compression in the United States.

Since the early 2000s, online social network sites (e.g., Facebook) have become increasingly popular throughout the world. This is particularly true among young adolescents and young adults. However, use of social network sites is also increasing among middle aged and older adults. As a number of those aged 40 years and older are already familiar with the internet and online social networks, it is likely that the proportion of individuals in old age using social networks will increase in the coming decades. Social isolation is a feeling that one does not belong to the society. A positive association between the use of social network sites and loneliness (the perceived discrepancy between actual and desired social relationships) has also been shown among younger adults in different countries<sup>89,90</sup>. It is worth noting that while loneliness is related to social isolation, these are two distinct constructs and they differ in their correlates<sup>91</sup>. Frequent users of social network sites may replace real life social interactions with these sites. Moreover, the frequent use of these sites may lead users to perceive that others have more or better quality, social relationships than themselves, due to the unrealistic portrayals of reality on social network sites<sup>92</sup>. While daily users were on average 61.0 ( $\pm 10.3$ ) years old, non-users were 72.0 ( $\pm 9.4$ ) years old<sup>93</sup>. Less than one out of two of daily users were retired, however approximately four out of five among the non-users were retired. In addition, daily users reported on average 2.3 ( $\pm 1.7$ ) physical illnesses, whereas non-users reported on average 3.2 ( $\pm 2.0$ ) physical illnesses. The mean physical functioning among daily users was 86.8 ( $\pm 18.9$ ), whereas mean physical functioning was 72.1 ( $\pm 26.8$ ) among non-users<sup>93</sup>. Moreover, whilst 4.6% (139 out

of 3002) of the daily users had depression, 8.0% of the non-users (189 out of 2363) had depression. The average social isolation scores among daily users and non-users were 1.5 ( $\pm 0.5$ ) and 1.7 ( $\pm 0.7$ ) respectively<sup>93</sup>. Compared to daily users, less frequent users (e.g., several times a week (total sample):  $\beta = .05$ ,  $p < .01$ ) and non-users reported statistically significant higher social isolation scores in the total sample and in men (except for the group "1 to 3 times a month")<sup>93</sup>. In women, the "less often" ( $\beta = .09$ ,  $p < .05$ ) and "never" ( $\beta = .07$ ,  $p < .05$ ) groups reported statistically significant higher social isolation scores compared to daily users.

In another analysis on 6,500 men and women who participated in wave 2 of the English Longitudinal study of Ageing (ELSA) in 2004–2005<sup>94</sup>, tracking mortality until March 2012. Authors defined social isolation and loneliness as having a score within the top quintile, so for the purposes of Cox regression modeling we compared participants with high (18.5%) and low/ average (81.5%) scores on our social isolation index and high (18.1%) and low/average (81.9%) loneliness scores on the short form. There were no sex differences in social isolation, but isolated individuals were more likely to be older and unmarried with limited education and lower wealth. Social isolation also was associated with limiting longstanding illnesses such as chronic lung disease, arthritis, impaired mobility, and depressive symptoms. Loneliness was more common in women and was associated with older age, less education, and lower wealth and marital status in the same way as social isolation. It was associated with a greater range of health conditions than social isolation, including coronary heart disease (CHD), stroke, and clinical depression, although the prevalence of these conditions was low. Loneliness ratings averaged  $4.06 \pm 1.47$ , similar to levels described in comparable studies in the United States<sup>94</sup>.

Hybels et al. have reported that elderly people with a low level of education had a higher mean score for depressive symptoms and that there was a significant relationship between a lower educational level and loss of weight, loss of appetite, and sleep problems particularly in the elderly people<sup>95</sup>. When we consider this situation retrospectively, we can conclude that the elderly with a high level of education might have had better economic statuses than those with lower level of education; they could therefore participate more in socio-cultural activities and had more occupations. It was found that having sons was effective on the depressive symptoms of the elderly<sup>95</sup>. This situation can be interpreted in this study carried out in the eastern part of the country as the elderly people, who thought that boys in particular were of more value to them, did not draw the attention they expected from them because the traditional social structure had changed, the new generation had become more and more individualistic and they had had to struggle with the problems of their own nuclear families<sup>95</sup>. One can say according to these results that the elderly felt more secure when they lived with their relatives; they were more satisfied in an environment where they had love and respect and they did not feel lonely.

## DISCUSSION

As shown by rapid aging, the population is a modern challenge for the healthcare system worldwide. This is especially noticeable in developed countries, where urbanization processes are particularly fast, where the number of urban elderly people has grown significantly. Europe will continue to have the oldest population in the world in the 21st century, and it is predicted that by 2030, almost one in four Europeans will be 65 years of age or older. According to forecasts, from 2015 to 2030 the number of people in the world aged 60 years and older will grow by 56 percent, from 901 million to 1.4 billion, by 2050 the number of elderly people in the world is projected to increase by more than doubled, the size in 2015 reached nearly 2.1 billion. Over the next 15 years, the number of older people is expected to grow at the fastest pace in Latin America and the Caribbean, with a population growth rate of 60 years and older at 71 percent, followed by Asia (66 percent), Africa (64), Oceania (47%), North America (41%). The average age of the population of Central Asia increased from 29 years in 1950 to 37 years in 2015, and the proportion of people over 64 years old increased from 5.8 percent to 11.8 percent.

One of the main problems of older people is loneliness, both physical and emotional. There are certain scales for assessing loneliness, they are presented in the form of voluminous (such as the Center for Epidemiologic Studies Depression (CESD) scale), as well as more simplified ones like UCLA and dJG. The APGAR Family Scale was developed by Smilkstein, Ashworth, and Montano and aims to measure the satisfaction of older people with chronic illnesses with family relationships.

The loneliness experienced by older people exacerbated their depressive symptoms. Depression and some socio-demographic variables were effective for loneliness; depression was the most significant risk factor for loneliness in older people, and it was also associated with several other demographic variables, including safety, age, occupation, substance use, and income, but the effect was less than depression. Depressed older adults seem to lack interest in everyday activities related to slow speech and movement, as well as negative feelings such as inertia, loss of self-esteem, weakness, loss of motivation and pessimism, and depressive symptoms such as social exclusion.

## CONCLUSION

Families are the cornerstone of all human societies which have been discovered in every human culture. Family as a social institution is closest to us and its influence can be felt in everyday lives. It is a place where a person finds and expects the most encouragement, comfort and security and help if needed. Elderly are most happy with family life especially with their children. Research in many cultural settings shows that older people prefer to be in their own homes and communities. Results confirm the findings of two earlier studies that found a positive association between social support and cognitive function. Marriage and perceived positive support from friends were significantly and positively associated with cognitive function. Loneliness and living alone were not significantly associated with cognitive function. Older adults prefer to

spend time with their family as opposed to other acquaintances. Research suggests when time is perceived as limited, individuals prefer social networks comprised of family members and formal resources that can provide meaningful interaction and assistance. Lack of social support causes loneliness which results in poor medical outcomes. Social network of family and friends buffer stress and promote well-being thus reducing loneliness. Therefore, social support of family is also important to improve the quality of life of elderly. The way to enhance social support is to involve family member actively in the care of their relatives. For participation of family in elderly care family visit is vital in elderly home.

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