

# **The loneliness of older people in mental health in nursing.**

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Abstract  <p>Loneliness often accompanies the elderly and can cause great harm to their life, spirit and psychology. The global population over 60 years of age accounts for 12.3% of the world, and about 40% of these elderly people feel lonely. The loneliness of the elderly is easily overlooked, and there are few reports on this aspect.</p> <p>This study aimed to understand how nurses take care of lonely elderly people. The purposes of this study were to help nurses better eliminate the psychological loneliness of older people and meet their needs. Research question was: What nursing interventions can be used to help lonely elderly people?</p> <p>The study was implemented as a literature review, the data for the literature review were collected using two databases: Emerald , Ebsco , PubMed and CRD. Over-all, nine articles were chosen to be reviewed. Content analysis was applied in the analysis of the data.</p> <p>There are two main categories: "Hospital" and "Home life". This is a care plan based on the different environments in which the elderly live. For example, for elderly people living in hospitals and nursing homes for a long time, nurses need to accompany them more and be good at listening, so that the elderly have a positive attitude towards life. The results of the article require clinical practice to determine whether these care measures can help the elderly relieve loneliness. Further research is needed to determine whether loneliness affects the physical health of the elderly.</p>		
Keywords/tags ( <a href="#">subjects</a> ) Elderly, loneliness, nursing intervention		
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# 1 Introduction

Today, science and technology are becoming more and more developed, which also greatly helps medical technology. As a result, human life has been greatly extended. From 2000 to 2015, human life expectancy has continued to increase, and the global average life expectancy has increased by 5 years compared to the past. Since the 1960s, this is the fastest growth. According to WHO data, the average life expectancy at birth of a person in the world in 2015 was 71.4 years (73.8 years for women and 69.1 years for men). (WHO 2018) This reflects the increasing proportion of the elderly population in the world today.

With the extension of life expectancy, there are more and more elderly people worldwide. The elderly is also a huge group in today's world. From 2000 to 2050, the number of elderly people worldwide is expected to increase by 605 million to 2 billion. (WHO 2014) A problem they often face is loneliness. In fact, loneliness is a universal emotional experience for human beings. However, we should pay more attention to the loneliness of the elderly, because sometimes this emotion will bring great harm to the elderly. Studies have shown that the sense of loneliness of the elderly is closely related to their health status. These problems cannot often be found in time to cause the elderly to be in danger. For example, loneliness may cause hypertension and cardiovascular disease, mobility and cognitive impairment, anxiety and depression, and even elderly suicide (Emerson et al. 2016).

Loneliness has a lot to do with the mental health of the elderly. These aspects are often overlooked when we take care of the health of the elderly. Particularly when we do not take into consideration thoughts and feelings of the elderly. (Mushtaq 2014.) This literature review aims to understand how nurses take care of lonely elderly people.

## 2 Loneliness and mental health

### 2.1 The status of loneliness in the world

In recent decades, the proportion of the elderly in the world's population has gradually increased. According to the 2015 Global Observation Index on Ageing, we find that people over 60 years of age account for 12.3% of the world population. (Wu et al. 2018). With the development of the world economy, more and more young people have left their hometowns to work and study abroad. As a result, more elderly people live alone. Elderly loneliness deserves nurse's attention. The feeling of loneliness reflects closed psychology, and it is the feeling of loneliness and sorrow caused by isolation from or exclusion from the outside world. Multiple studies have shown that loneliness can lead to mental health problems, such as a 64% increased risk of dementia and an increased probability of depression. (Palmarini et al. 2017.)

#### 2.1.1 Loneliness

People live in society, have various social needs, and form various social relationships. People feel lonely when their social needs are not met, or when the desire for social relations differs from the actual level of reality. (Li 1998)

Loneliness is a personal subjective feeling and experience that is not accepted by others or socially isolated and alienated, rather than an objective state. A person can have no sense of loneliness in a living environment where everyone participates, or in a long solitude. Loneliness is an unpleasant negative and painful emotional experience. In the lonely state of mind, people often feel a deep sense of spiritual emptiness. According to the time or frequency of loneliness, it can be roughly divided into three categories: short-term loneliness, long-term loneliness, and complete loneliness. (Pittman 2016.)

Short-term loneliness does not produce emotional disturbances and mental illness, and you can even relax yourself and feel free, such as the time for a person to work and rest without being disturbed by others. Long-term loneliness refers to a person

who has been unable to establish social relationships for a long time, is isolated or reclusive, and it may cause clinical depression. However, for some people, loneliness is not frustrating. Others, such as monks, see long-term loneliness as a means of spiritual enlightenment. Long-term loneliness is still considered undesirable. Symptoms of total loneliness often include anxiety, sensory illusions, and even distortions of time and perception. However, this is the case when the sensory system is not stimulated at all and there is a lack of contact with the person for a long time. (Wayback Machine 2005.)

### 2.1.2 Loneliness of the elderly

Due to the high proportion of widows in the elderly group, the number of left-behind elderly people has increased due to relocation and urbanization, and the loneliness of the elderly has become a hot issue of global concern. (Wu 2018) Now, the latest National Survey of Healthy Aging in the United States has found that about one-third of elderly people are lonely.

*"Research shows that long-term loneliness can affect older people's memory, physical health, mental health, and life expectancy. In fact, some studies suggest that long-term loneliness may be longer than overweight or longer sitting still and smoking a lot more shortens life expectancy. "* (Wu 2018)

In this study sponsored by the American Association of Retired Persons (AARP), researchers at the University of Michigan conducted a survey comprising of a population of 2000 elderly Americans aged between 50 and 80 years. More than a third of older people said they feel lack of peer relationships at least some of the time, and 27% say they sometimes or often feel isolated; most people who said they lack peer relationships also feel isolated, and vice versa. Almost 30% said they interact with friends, family, or neighbors once a week or less. Thousands of elderly people in this country felt lonely and isolated from society, especially those over the age of 75. (Ducharme 2019)

According to data from Age UK, 2 million people in the UK over the age of 75 live alone, and more than 1 million older people say they do not spend a month talking to friends, neighbors, or family members. (NHS 2018)

Older people may experience increased loneliness for a variety of reasons, such as the death of a spouse and friend, no longer the center of the family, and leaving the workplace. Whatever the reason, it is easy to feel lonely, which may lead to a serious decline in some mental illness and happiness. Lonely people may also find it difficult to reach out. Loneliness is stigmatized, and older people are often reluctant to seek help because they want to be respected and prove that they are not worthless. (NHS 2018)

### 2.1.3 Factors leading to loneliness

Loneliness affects most of the elderly. With reference to Chinese research data, researchers have found that the level of loneliness of Chinese elderly has gradually increased with the change of time (Yan et al. 2014), China Longitudinal Aging Social Survey (CLASS) 2014 baseline data show that 24.78% of the elderly have different degrees of loneliness, of which 1.40% of the elderly have severe loneliness; the proportion of elderly people who live alone is as high as 5.12%. (Wu 2018) Older people have a unique set of factors that affect loneliness. Among the elderly, many factors such as gender, marital status, childlessness, health status, retirement, living alone, death of close friends or spouse, attitude to life, social support from them, economic status. can cause them to feel lonely. A 2016 report by the Norwegian Statistics Office states that if personal problems arise, more than 30% of seniors over 66 years of age can only rely on two or fewer people. (Statbank Norway 2018)

## 2.2 Mental health

A person's health includes two parts, one is physical health and the other is mental health. According to the WHO definition, health is the state of a person's complete health. This requires both physical and mental health, not simply without disease.

Physical health allows humans to carry out normal daily life, but mental health is more difficult to guarantee, and it is often difficult to detect. Psychology affects a person's thoughts, feelings, and even behaviors. Mental health is also a state that can ensure a person's normal work and contribute to society rather than harm and can also allow a person to cope well with the stress of daily life. (WHO 2018.)

Mental health is very important for individuals and the whole society. If a person has psychological problems, he may act to hurt others or society. Poor mental health is linked to many factors, including its own causes and social impact. There are stress, loneliness, depression, anxiety, interpersonal problems, addiction, ADHD, self-mutilation, and various emotional disorders. Social factors include rapid social change, a stressful working environment, sexism, social exclusion, and loss of human rights. These factors will lead to poor mental health, so society also needs to pay attention to mental health. (WHO 2018.)

### 2.3 Relationship between mental health and loneliness

Loneliness is one of the causes of many mental diseases, such as depression, alcohol abuse and Alzheimer's disease. In addition to these mental illnesses, loneliness sometimes has an impact on the human body, increasing the risk of health problems such as diabetes, obesity, and physical deterioration. If we ignore the impact of loneliness on human beings, loneliness will seriously affect people's life activities and health. In the past few decades, people have paid more and more attention to loneliness, so research on loneliness has increased dramatically. However, the relationship between loneliness and mental illness is not well discussed, but loneliness poses risks to human mental health. (Mushtaq 2014; Manfred et al. 2017)

A major factor in suicide is loneliness. The concept of suicide and the prevalence of parasuicide increase with the degree of loneliness. The main factors of suicidal tendency are thwarted belongingness and perceived burdensomeness. Loneliness is a disease and has a place in the classification of mental illness. (Mushtaq 2014; Manfred et al. 2017)

Alzheimer's disease is associated with loneliness. The greater the degree of loneliness of a person, the greater the probability of his illness. This shows that loneliness can affect human mental health subtly, but usually these conditions are difficult to find. This requires the nurse to pay more attention to the patient and to notice the psychological health hazards caused by loneliness. (Mushtaq 2014; Robert et al. 2007)

### **3 Aim, Purposes and Research Questions**

Aim of this study is to understand how nurses take care of lonely elderly people. The purpose of the study is to help nurses better eliminate the psychological loneliness of older people and meet their needs.

Research questions:

What nursing interventions can be used to help lonely elderly people?

## **4 Methodology**

### **4.1 Literature review**

Literature review refers to a method of collecting a large number of documents and then making a comprehensive introduction and elaboration of them by reading, analyzing, and sorting out research questions. This research method has no space and time restrictions. By studying previous literature and modern Chinese and foreign literature, it is possible to obtain a wider range of research goals or research results. This cannot be achieved by other research methods. (Snyder 2019.)

The key to literature review is the quality of the literature. An excellent literature review must be profound and strict. This is the embodiment of the author's responsibility to the reader. However, obtaining excellent sources of literature is very challenging. A good literature review can lay a solid theoretical foundation for research. The author must also filter out some irrelevant articles while searching the relevant information in the database. The literature needs to answer the research subject accurately. (Snyder 2019.)

## 4.2 Literature search

The data for this literature review was collected from the article databases of Emerald, Ebsco, PubMed and CRD. Manual search in the school library was also implemented in order to obtain all the relevant data. Different combinations of pertinent key words were tested in the beginning of the data search. The best results were obtained with the combination of the words loneliness of older people and in mental health or in nursing experience.

Table 1 shows the data inclusion criteria. Table 2 demonstrates the search databases, key words, and the results of the search. The search results might be broad, due to an intentional choice to try to ensure all the relevant data will be included. The obtained data was glanced through and the abstracts were read. Articles were chosen based on the abstracts. After reading through the studies the final selection was done based on the predetermined inclusion criteria.

The inclusion criteria for this literature review data will be:

Inclusion Criteria	Inclusion criteria
Studies the experiences of prevention of loneliness of older people	Published between years 2005 and 2019
Scientific publication, doctoral and master's thesis included	Full text access for JAMK students
Peer-reviewed studies	Study in English or Chinese
Responds to the research questions	

Table 1. Inclusion criteria.

Database	Key terms	Results	Chosen based on title and abstract	Relevant studies
Emerald	Loneliness in elderly AND nursing experience	193	18	1
Pubmed	Loneliness and elderly	113	19	2
Ebsco	Loneliness in elderly AND mental health	31	8	3
CRD	Loneliness and elderly	23	9	3

Table 2. Results of the data search

### 4.3 Data analyses

This research has selected and evaluated the collected data through content analysis. Content analysis is a frequently used analysis method. Content analysis is a method that does not need to collect people's data but can count all aspects of the research content and then summarize or classify it into any form. (Audience dialogue 2012) Content analysis is suitable for use in a clinical setting because content analysis is based on practice and a relative strategy that clearly guides nursing research. (Cole 1988)

The content analysis method is divided into inductive method and deductive method. The purpose of the study determines which method we use. This research has chosen the inductive method. The inductive method can simplify the original data of the document. Through this method, the relationship between the results obtained from the collected data and the research goal can be more clearly presented. (Thomas 2006) Thus this approach was chosen for this study.

Inductive research is used in nursing research. Because the induction method can summarize the general regularity of the development of things, it can apply and refer to many similar cases in nursing research. The researchers first made specific observations on the data, then analyzed and summarized, and then turned to detect different topics and patterns in the data. This allows researchers to analyze and summarize different kinds of results. (Soiferman 2010) The data analysis process is demonstrated in figure1.

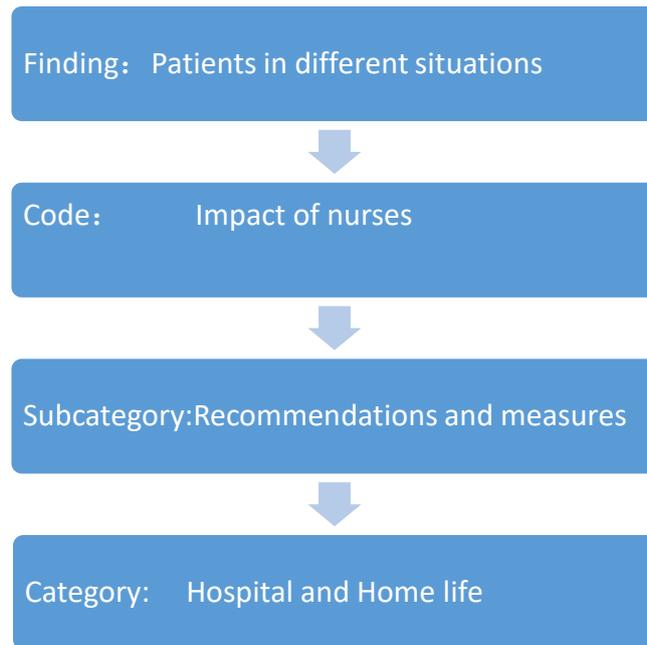


Figure 1. Data analysis process

## 5 Results

By querying the literature of the database, nursing interventions are mainly divided into two categories, one is “hospital”, and the other is “home life”. Table 4 illustrates the specific nursing interventions. “Hospital” means an action taken by a nurse while an elderly person is in the ward. “Home life” means that after the elderly leave the ward, the caregiver gives them guidance on life.

Research questions	Hospital	Home life
What nursing interventions can be used to help lonely elderly people?	Companionship	Cultural Interaction
	Equality	Enrich life
	New media	Physical exercise
	Psychological rehabilitation	Reading books

Table 3. Results of main categories and subcategories.

## 5.1 Hospital

### Companionship

Accompanying the elderly in a lonely environment is an essential part of nursing. When nurses and old people are together, the old people can be taken care of and forget their troubles. They will feel warmth and comfort in their hearts. Therefore, loneliness will be relieved to some extent. (Roos et.al 2019.)

In most cases, companionship does not have to meet a specific purpose or need in order to proceed. According to interviews by Roos et al., If the elderly has a sense of loneliness, the elderly will tend to chat with others, share ideas, and discuss some interesting things instead of sad things or troubles, which can make them happier. (Roos et.al 2019.)

### Equality

Regardless of whether the elderly is lonely or not, stable social status plays an important role. In the stable social status, there are some factors related to loneliness, widowed, low self-esteem, and uncomfortable income, all of which have an impact on the elderly. (Zebhauser 2015; Crewdson 2016.)

Give the elderly a certain amount of respect, and treat the elderly equally is what nurses should do. Although it is not determined whether the elderly will feel inferior because of loneliness, or whether the elderly will be lonely because of inferiority. We must also prevent the impact of inferiority on the elderly. By treating the elderly equally, they can eliminate their inferiority and reduce the impact on loneliness. (Crewdson 2016.)

### **New media**

With the development of science and technology, new media play a very important role in life. The use of new media can help people build a social circle, strengthen communication, and contact between them and friends, and also use the new media to vent their pain and share solitude. Therefore, if the elderly can use the new media reasonably, it can also help them reduce loneliness in some ways. (Crewdson 2016.)

Half of the elderly have some new media usage. New media may potentially ease the loneliness of the elderly. It is important that caregivers educate lonely elderly about how to use new media. The caregiver can teach the elderly to use simple new media tools and tell them that they believe they can master the new media. At the same time, they should be reminded of the dangers of new media, such as fraud, identity theft. Instructing the elderly to use the new media in a healthy and rational way can not only help them connect with their families, but also make new friends. (Crewdson 2016.)

### **Psychological rehabilitation**

Studies by Pitkala (2009) and others have shown that community-based psychological rehabilitation improves the subjective health of the elderly, reverses the deterioration of their mental health due to loneliness, and even reduces the mortality rate of autistic elderly (Pitkala et.al. 2009.)

The core of psychological rehabilitation is to help the elderly establish a healthy psychological awareness, establish a good lifestyle, and avoid loneliness. Specific methods for psychological rehabilitation include arranging suitable diet plans for the elderly, and setting a reasonable schedule for their daily life, such as getting up at 8 am for exercise, having afternoon tea with friends at 3 pm, and arranging treatment for elderly groups Sexual writing and psychological counseling classes. Nursing staff should also carry out mental health knowledge education activities on a regular basis to promote the popularization of psychological rehabilitation knowledge for the elderly. (Pitkala et.al. 2009.)

## 5.2 Home life

### Cultural Interaction

Vera Roos and others' interviews with older people in South Africa mentioned that regional cultural influences can help older people ease their loneliness. Elderly people are invited to participate in traditional customs, to participate in the wedding of family members, to make beer together, and everyone will get together and not feel lonely because they sing and dance and talk to everyone. (Roos et.al. 2019.)

Spiritual rituals can also alleviate loneliness. Christians can go to church to listen to the pastor's sermons and increase opportunities for communication with others. In these ways, the hearts of older people can be healed. (Roos et.al. 2019.)

### Enrich life

Generally, the elderly is not likely to use community resources, and some elderly people are not likely to participate in leisure activities, and the library is extremely strange to them. Lonely people prefer to stay at home, they think going out is troublesome. Elderly people should make reasonable use of typical community facilities such as community centers and sports and leisure facilities. This can help them increase their chances of getting along with others and reduce their inner loneliness. Enriching their lives can help them realize the fun of life, knowing that there are still many good people around them, and getting along with them can make the elderly happy, so there will not be too many lonely emotions. (Woolham 2013.)

Elderly people can become busy themselves, so that they can be distracted, and they no longer care about being lonely. The elderly can clean the house, the yard, wash clothes, bake, plant flowers and so on during their free time. The elderly can also do some activities with the elderly in a community, they can communicate with each other and express their inner thoughts. Sometimes, empathic people understand each other better and make them feel like they have a companion. Over time, they will no longer be alone and can rely on each other. (Roos 2019.)

### **Physical exercise**

Physical exercise can reduce the loneliness of the elderly, and the elderly who regularly participate in physical exercise can effectively maintain physical and mental health and delay physical decline. Older people can use physical exercise to increase their relationships and opportunities to communicate with others. Physical exercise itself can regulate the mentality of the elderly, stabilize their emotions, compensate for the emotional loneliness and inferiority of the elderly, improve their love of life, and make the elderly feel optimistic and happy. (Woolham 2013.)

According to their physical conditions, the elderly choose appropriate sports, formulate a reasonable exercise plan, learn to enjoy life through physical exercise, increase self-confidence, and change their views that their health is "poor". (Woolham 2013.)

### **Reading books**

In fact, the elderly also needs a certain amount of knowledge reserve. So, reading can be a factor in protecting the elderly. Reading helps the elderly to mobilize their intelligence and cognitive functions. It can also enhance their physical and mental health and balance, make the elderly more confident, and make them feel that they are not worse than young people. This can make them more satisfied with their lives. Confidence in life can eliminate some factors that cause them to become lonely, such as inferiority. (Tomagová 2016.)

Many books provide the elderly with the opportunity to acquire knowledge in various fields. At the same time, this can help the elderly spend their free time in a meaningful way and provides an opportunity for self-realization to make their lives more meaningful. It is almost impossible for a person who expects life to become lonely. (Tomagová 2016.)

## **6 Discussion**

### **6.1 Ethical considerations, validity, and reliability**

Ethics is defined as norms for conduct. Ethics is different from law. It is wider than the law and more humane. In research, we can use ethical concepts and principles to judge, correct, and analyze problems. Ethics is important because it promotes the purpose of research, helps ensure that researchers are accountable to the public, and promotes cooperation between people. (Resnik 2011.) The data management of this study strictly follows a basic principle, the data is verifiable, and the source of the data is recorded (Horner 2011).

Academic plagiarism is an act that violates academic integrity. It is unfair to the original author and does not respect the original author. (Bretag 2013.) This study avoids plagiarism by accurately marking citations, recording the year the author and article were published, ensuring the authenticity of the data, and not tampering with the data.

The research method used in this study is literature review. Therefore, this article is based on the research of other authors. The main ethical issue facing original research articles is obtaining the informed consent of the elderly (Roos 2019). Researchers need to conduct separate interviews with participants. Participants have the right to participate voluntarily. This study was approved by the ethics committee (Roos 2019.)

Validity refers to whether our results can be applied to other situations or environments. (Orn 2018) This research summarizes coping methods in different environments through surveys and literature. Take corresponding suggestions and nursing interventions for the elderly in different situations. This can make research applied to different environments and enhance the validity of this article. As an example of one study used in this review, John Woolham (2013) has been a social care researcher for many years. He led a study on the use of local medical care by the elderly. Seeking various well-being and independence for the elderly and people with dementia. His research is reliable.

The countries studied in this article include the United Kingdom, China, South Africa, Germany, and Slovakia. These countries are in Europe, Asia, and Africa, so this article covers a wide range and can be applied to different regions. However, due to the limited scope of this article, there will be insufficient research results.

Reliability in research means that if a measurement method or tool can produce the same result after repeated testing, then the method or tool is reliable (Orn 2018). In the case of determining the research theme and clearing the research steps and methods, the researcher can repeat the test of the research results to ensure the reliability of the research. At the same time, by summarizing the literature under the same moral code, accurately recording the thinking about the research content to reflect the reliability principle of the research. (Houser 2008.)

Due to the use of open discussion and revision and data sharing, this article can be reviewed during the research process, and the number of researchers also increases

the reliability of the article. (Resnik 2011) However, the researchers are all beginners in the field and may influence research in terms of reliability.

## **6.2 Discussion of the results**

Loneliness is a manifestation of unsatisfactory spiritual life in old age, which is a common clinical problem. (Andrew 2018) This study can help your clinical nurse use interventions to deal with the loneliness of the elderly. Facing the loneliness of the elderly, the nurse can help the elderly in different situations to get rid of the loneliness by taking effective measures and providing reasonable suggestions.

In most cases, the social and spiritual needs of the elderly are easily overlooked and therefore cannot be solved. Clinical nurses can ease the loneliness of the elderly from these two aspects. (Erichsen 2013) The nurse spends more time with the elderly to make them feel that they are not alone. According to the physical condition of the elderly, different exercise plans and daily life arrangements are made to make their life full.

The elderly will easily lose their sense of self-worth due to factors such as low socio-economic status. (Ali 2016) Nurses can organize some activities, such as reading and exposure to new media, new things, so that the elderly can rebuild confidence and discover their own value. At the same time, nurses should also treat elderly patients equally so that they feel valued and cared for. If necessary, nurses can provide psychological rehabilitation training for the elderly.

The method provided in this study can be used as a reference for clinical medical staff and provide inspiration for future research on loneliness of the elderly. We hope this article can cause more people to explore more effective measures to help

lonely elderly people. At the same time, it also calls on the community to pay attention to the elderly group. Further research is needed to determine whether loneliness affects the physical health of the elderly.

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## Appendices

### Appendix 1. Related literature summary

No.	Author(s), Year, Country	Title	Aim(s) and Purpose	Participants, Sample size	Data collection and Analysis	Key results
1.	John Woolham, Guy Daly and Elizabeth Hughes, 2013 UK	Loneliness amongst older people: findings from a survey in Coventry, UK	The purpose of this paper is to investigate factors associated with loneliness amongst people aged 55 and over living in Coventry, a medium-sized city in the Midlands, UK.	1626	Questionnaires and multivariate regression analysis	The study found that living alone, not enjoying life, needing help with personal care and not being in touch with people as often as liked all predicted loneliness

2	James Alexander Crewdson, 2016 UK	The Effect of Loneliness in the Elderly Population: A Review	The aim of the research study is to identify the selected indicators of mental health, such as meaning of life, experience of well-being, hope, and feelings of loneliness and depression in the elderly participating in the University of the Third Age, in relation to their age and gender.			In collating these studies, loneliness can be shown to be a significant independent risk factor for a number of conditions such as poor health behaviors (eg, smoking and alcohol consumption), physical health problems (eg, hypertension and motor decline), and psychiatric conditions (eg, depression and cognitive impairment).
3	Martina Tomagová, Ivan Farský, Ivana Bóriková, Mária Zanovitová, 2016 Slovakia	Selected indicators of mental health in the elderly – the participants the university of the third age	To describe the prevalence of ageist behaviours amongst first-year undergraduate nursing students.	147 seniors	Data were collected by means of self-assessment scales – the Life Meaningfulness Scale, Snyder’s Hope Scale, the Emotional Habitual	The study indicates the presence of salutogenic factors affecting the mental health of the sample of seniors in the process of active aging. The results could form the basis for implementing preventive strategies in clinical nursing practice.

					Subjective Well-being Scale, the Loneliness Scale, and the Geriatric Depression Scale.	
4	A. Zebhauser, J. Baumert, R.T. Emeny, J. Ronel, A. Peters and K.H. Ladwig, 2014, Germany	What prevents old people living alone from feeling lonely? Findings from the KORA-Age-study	Living alone in later life is an important risk factor of loneliness for elderly people unless they have resources to compensate for that. The aim of this investigation was to identify these resources.	1079	Data were drawn from the population-based KORA-Age-study (KOoperativen Gesundheitsforschung in der Region Augsburg) conducted in the Region of Augsburg, Germany in 2008/2009 with 1079 elderly men and women (64-94 years). Multiple logistic regression analyses were conducted	Absence of depression and a functioning social network are the most important protecting resources against loneliness for elderly people living alone, while income, level of education and age-related limitations have no impact. These findings should be considered when supporting the elderly in successful aging.

5	Vera Roos, Norah Keating and Carlien Kahl, 2019, UK	Loneliness of older black South African women subjected to forcible relocation.	This article seeks to understand loneliness of a group of older women who have been rendered vulnerable by longstanding exclusion from community, services and material resources. We use loneliness as a metric for exclusion from social relations.	Sixteen Setswana-speaking women	Textual data were analyzed using thematic analysis, visual data analysis of elements and symbolic representations of loneliness.	Loneliness was mitigated by socializing and gathering for traditional activities, performing spiritual rituals, and keeping busy individually or with others, thus reinforcing a core theme that any social interaction alleviates loneliness. Even though loneliness is powerfully unpleasant, it is an expression of the importance of social interactions formed in a particular context. In the face of longstanding societal exclusion and disconnection from community, social connections are central to identity and to survival.
6	Fang Yang, Junan Zhang and Jianping Wang, 2018 China	Correlates of loneliness in older adults in Shanghai,	Despite a large body of research on the correlates of loneliness, little is	The total sample size of older adults included in the analysis was 2770.	Shanghai Urban Neighborhood Survey (SUNS) and	The mean of loneliness score was 18.48 (SD = 5.77). The old old reported a higher level of loneliness than the young old.

		China: does age matter?	known about the age group differences in the correlates. Given that the older adult population is heterogeneous, this study aims to examine the correlates of loneliness in older adults in Shanghai, and to explore how the correlates vary across different age groups.		De Jong Gierveld Loneliness Scale	Self-rated health (SRH) and family functioning were two important correlates for the old old. Correlates of loneliness vary for the young old and the old old. The older adults at higher risk of loneliness deserve more attention and concern. Future interventions should be tailored to the young old and the old old to better help older adults alleviate loneliness and enhance their well-being.
7	Pitkala KH, Routasalo P, Kautiainen H, Tilvis RS. 2009, Finland	Effects of psychosocial group rehabilitation on health, use of health care services, and mortality of older persons suffering from	The study evaluated the costs and health effects of a psychosocial group rehabilitation programme for lonely older ( $\geq 75$ years) persons.	Groups of seven to eight elderly participants.	The economic evaluation was conducted alongside a multicenter (six sites) randomised controlled trial conducted in 2003. Time horizons of	The authors concluded that it may be possible to reverse the deteriorating effects of social isolation, reducing health care costs and mortality while increasing participant health by using the study's psychosocial

		loneliness: a randomized, controlled trial			analyses varied by outcome. The perspective was not stated.	group rehabilitation programme in lonely older persons.
8	Cattan M, White M, Bond J, Learmouth A. 2006, UK	Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions	To assess the effectiveness of health promotion interventions that target social isolation and loneliness among older people.	over 6,556 participants, were included in the review.	Study validity was assessed on the basis of study method and design and how these were reported, along with the appropriateness of the study design and methods in relation to the objectives of the study. Studies with flawed methodology were categorised as 'inconclusive'.	Educational and social activity group interventions that target specific groups of people can alleviate social isolation and loneliness among older people. The effectiveness of home visiting and befriending schemes remains unclear.

9	Cole M G. 2000 Canada	Impact of geriatric home screening services on mental state: a systematic review	To determine the impact of geriatric home screening services on mental state.	Men and women aged 65 years or more who lived at home.	Controlled trials (randomised and non-randomised) which included at least one measure of mental state.	There is little evidence that geriatric home screening services had an impact on the mental state of aged subjects. However, only a minority of screened subjects received new services as a result of screening, the screening visits may not have been intensive enough and most of the studies focused primarily on the assessment and treatment of physical rather than mental problems.
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