Loneliness among older adults: a systematic literature review on the role of age, gender and living situation.

Julie Sørbø Helliesen

Kandidatnummer: 2057

Veileder: K Pravin Israel

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Julie Sørbø Helliesen

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Abstract:

Background: The number of older adults is increasing worldwide. Older adults are at risk of feeling lonely, which can increase risk of depression, anxiety, low self-esteem, sleep problems and increased stress. If one has knowledge about risk factors, one may be able to prevent loneliness. This systematic review aimed investigates empirical studies outlining the meaning of age, gender and living situation among elderly people with loneliness living at home.

Method: This systematic literature review was carried out in February 2023 and reported with the help of PRISMA guideline. The main database used was PsycINFO, and an additional search was performed on Google Scholar. Empirical studies were included if: (a) investigated older adults (50+ years); (b) were living in community dwellings; (c) had been published in English; (d) had title and abstract available; (e) were published between 2013 and 2023; (f) explored loneliness as a construct of interest.

Results: Thirteen studies were included in the current review. Loneliness is common among community-dwelling older adults, and results revealed that being a woman, older age and living alone are risk factors of feeling lonely.

Discussion: The findings of this studies identified though this review have yielded mixed results. Variation in results may be related to the methods used, size and characteristics of study populations and whether the studies contain bias.

Conclusion: Loneliness is common among older adults who live at home, and especially for women, with older ages, and if one lives alone. More research is needed to investigate loneliness in older adults.

Keywords: loneliness, elderly, older adults, community-dwelling, age, gender, living situation

Abstrakt:

Bakgrunn: Antallet eldre vokse øker på verdensbasis. Eldre er utsatt for å oppleve ensomhet, noe som kan øke risiko for depresjon, angst, lav selvtillit, søvnproblemer og økt stress. Dersom man har kunnskap om risikofaktorer, kan man kanskje forebygge ensomhet. Denne litteraturgjennomgangen undersøker empiriske studier som ser på betydningen av alder, kjønn og livssituasjon blant eldre som bor hjemme.

Metode: I denne systematiske litteraturgjennomgangen ble empiriske studier undersøkt hvis de så på betydningen av alder, kjønn og bosituasjon blant hjemmeboende eldre mennesker med ensomhet. Litteratursøket ble gjennomført i februar 2023 og rapportert ved hjelp av PRISMA guideline, som resulterte i 13 artikler. Empiriske studier ble inkludert hvis: (a) undersøkte eldre voksne (50+ år); (b) som bodde hjemme; (c) hadde blitt publisert på engelsk; (d) hadde tittel og sammendrag tilgjengelig; (e) ble publisert mellom 2013 og 2023; (f) undersøkte ensomhet.

Resultat: Tretten studier ble inkludert i litteraturgjennomgangen. Ensomhet er vanlig blant eldre voksne som bor hjemme, og resultatene fra litteraturgjennomgangen viste at det å være kvinne, det å ha høyere alder og det å bo alene er risikofaktorer for å føle seg ensom.

Diskusjon: Funnene identifisert gjennom denne gjennomgangen har gitt blandede resultater. Variasjon i resultater kan være relatert til metodene som ble brukt, størrelse og karakteristika på studiepopulasjonene og om studiene inneholder bias.

Konklusjon: Ensomhet er vanlig blant eldre som bor hjemme, og spesielt for kvinner, ved høyere alder, og dersom man bor alene. Mer forskning er nødvendig for å undersøke ensomhet hos eldre voksne nærmere.

Introduction

The number of older adults is increasing worldwide. With older age, one is faced with numerous physical, psychological, and social changes, which challenge capacity of living happily. Loneliness is relevant among older adults. Loneliness has been defined as a "geriatric giant" affecting the mental and physical health of older people and affecting their quality of life (Routasalo & Pitkala, 2003). After the Covid-19 pandemic with lockdowns, isolation and other restrictions, the number experiencing loneliness and social isolation has increased by up to 30% in Europe, the USA and China (Galea et al., 2020; Hwang et al., 2020; Jeste et al., 2020; McGinty et al., 2020). Loneliness has in previous studies been associated with a higher risk of heart disease, stroke and mortality (Holt-Lunstad et al., 2015; Valtorta et al., 2016). Overweight or obese people experience both chronic and transient loneliness more frequently (Martín-María et al., 2021).

Loneliness can be defined as “a discrepancy between one’s desired and achieved levels of social relations"(Dahlberg et al., 2022). Feelings of loneliness is an important indicator of well-being among elderly people (Perissinotto & Covinsky, 2013). Earlier studies have showed that about 5 and 15% percent of older adults report frequent loneliness (Pinquart & Sorensen, 2001). Loneliness among older adults have previously been associated with old age and social isolation. The relationship between social participation and integration among younger and older adults has been investigated, revealing that with increased age, an increasing proportion of the elderly experienced feeling of loneliness and social isolation (Kemperman et al., 2019). The feeling was related to changes in the life cycle (retirement or age-related losses), future health and decreased mobility.

The age of individuals also seem to be associated with loneliness in general (Pagan, 2020). Previous studies have revealed that older adults have a smaller network and fewer social interactions than younger adults (Tang & Lee, 2011; Weijs-Perrée et al., 2015). Intervention studies have been carried out to investigate interventions potentially reduce the risk of loneliness among elderly people living at home (Fakoya et al., 2020). The findings thus point to the fact that there is no one-size-fits-all approach to addressing loneliness among older adults, and thus there is a need to tailor interventions to suit specific vulnerable groups, and to comply their individual needs. Fakoya (2020) also concluded that future research should be

aimed at identifying which interventions are effective for whom, and how and in which context they are effective.

After the covid-19 pandemic, older adults have also been prevented from engaging with their social worlds increasing the risk of feeling lonely (Stuart et al., 2022). If one had knowledge about who have the highest risk of feeling lonely, then measures could have been initiated to prevent loneliness in vulnerable groups. Over half of older adults over 80 years (51.7%) live alone, about a third of 70–79 year olds (33.8%), and about a quarter of 60–69 year olds (24.6%) live alone (Das Gupta et al., 2020). which may increase the risk of feeling lonely (Brady et al., 2020). Regarding living situations, studies have revealed that older adults tend to feel less lonely if they live with a partner and have children (De Jong Gierveld & Van Tilburg, 2010; Demakakos et al., 2006). Women also tend to report loneliness more frequently than men (Pinquart & Sorensen, 2001). In general, as people get older, they are less mobile and have limited activity spaces, and therefore probable feel more loneliness than younger adults (Kweon et al., 1998).

There are limited studies that have focused on which older adult groups that have the highest risk of feeling lonely in terms of gender, age and living situation. There is also a lack of studies that investigate age, gender and living situation as main findings, as these outcomes are often secondary findings. Therefore, it is an in intriguing question how living situation, age and gender is associated with loneliness. Thus, the aim of this study was to bring these factors together into a framework to investigate the relationships between age, gender and living situation and loneliness.

Methods

Aim

The aim was to examine the role of the age, gender and living situation on the experience of loneliness in older adults.

Design

This study made use of systematic literature review design to study the research aim. A systematic literature review is used to do a scholarly synthesis of the evidence on a topic using critical methods to assess research on the topic, which in this assignment was loneliness among older adults. The database used to carry out the systematic literature search was PsycINFO.

Procedure

The literature search was performed in February 2023 and captures empirical studies completed in the past 10 years to capture contemporary evidence. The search strategy firstly focused on the community-dwelling older adults (retirement living/independent living or home care services), and secondly on the experience of loneliness among elderly (loneliness, social isolation, solitude).

To include all existing types of loneliness that might have been identified in literature, the general term “loneliness” was searched. The keywords “grief” and “stress” was also used to assess other potential factors affecting loneliness. Thus, to be inclusive of all possible citations referring to loneliness, we added grief and stress to the search list. A formal protocol paper was not made for this paper, as this was not required for the purpose of the bachelor thesis. The search terms are presented as follows: (grief" OR "stress" or "loneliness") AND ("elderly" OR "older people" OR "older adults").

A total of 59 studies were identified in the database PsycINFO (figure 1). The publications titles and abstracts were screened and excluded (n = 50) in a content analysis based on the selection criteria. In the data extraction process, information examined was participants characteristics (population size, gender distribution, mean age), study design and methods, variables of interest (age, gender and living situation).

In addition, a general search was made in Google Scholar and performed using the search terms: "loneliness" AND ("older adults" OR "elderly"). The studies selected through a title and abstract review also investigated the variables of interest, although they did not appear in the main literature search performed in PsycINFO. Further content analysis with full-text screening was also performed. At the end of the whole selection process, five publications were included. The PRISMA 2020 checklist for systematic literature reviews was used (Page et al., 2021).

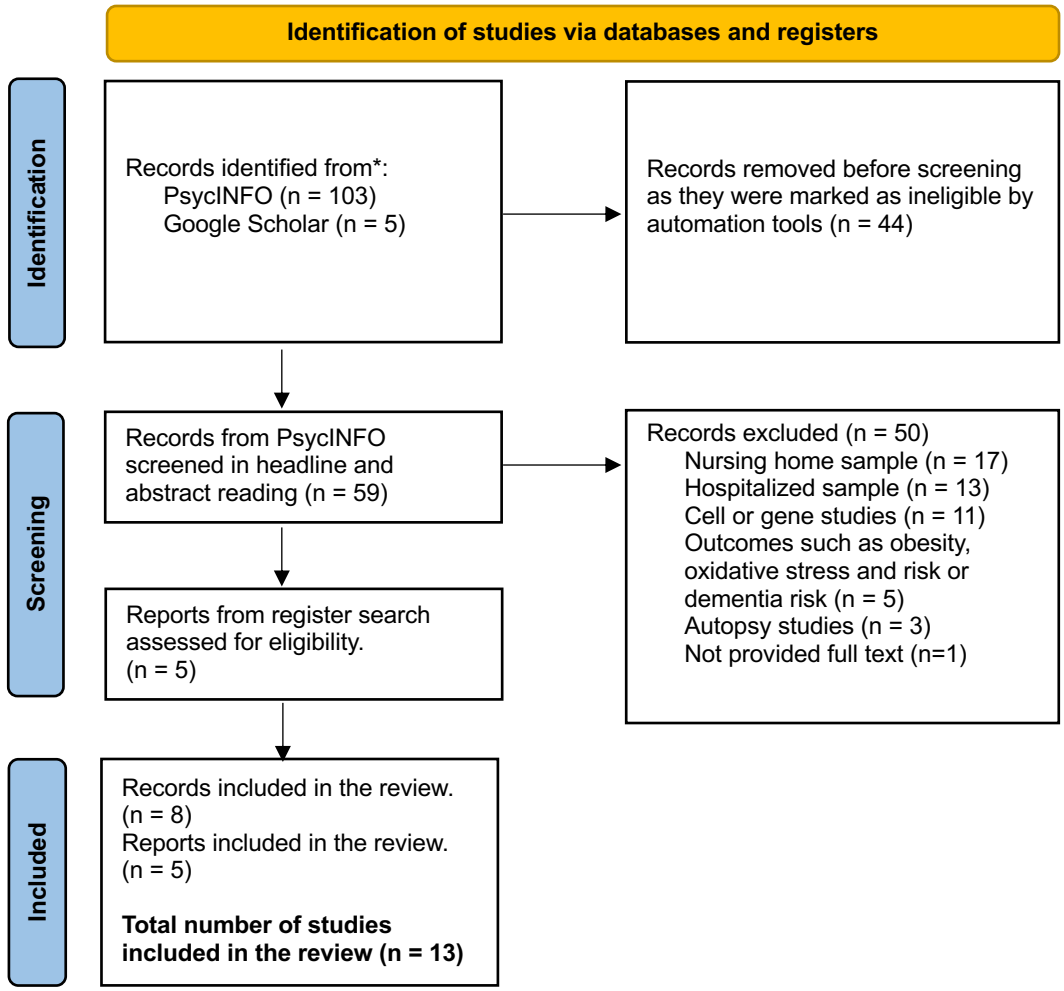

Figure 1: PRISMA Flowchart of the search procedure (Page et al., 2021).

Inclusion and exclusion criteria

Empirical studies were included if: (a) investigated older adults (50+); (b) were living in community dwellings; (c) had been published in English; (d) had title and abstract available; (e) were published between 2013 and 2023; (f) explored loneliness as a construct of interest. Studies were excluded if: (a) the study population was not community-dwelling older adults

living at home, (b) cell, gene, or autopsy studies, (c) investigated outcomes that were irrelevant for the research question or (d) studies that did not provide full text.

Data synthesis

Content analysis was used to synthesize and analyze the data. The content of each article was read to highlight concepts from the study. The concepts were constantly compared with the findings of other selected studies. The purpose of this was to identify common themes and conceptual categories. At the end of the analysis, the categories emerged from the studies were grouped according to their similarities into overarching themes, as shown in the results section.

Ethical considerations

Conducing ethically sound studies that are in line with the guidelines remains essential an there are some ethical considerations that are relevant mention related to this systematic literature review. One may consideration is related exclusion and omission of studies in the review without a relevant reason for doing so. If some studies have been omitted from the review, this may have led to bias that could affect the results. There is also a risk of plagiarism as one cannot know with certainty which ethical reflections belong to the researcher and which belong to the various studies in the review. The present review was carried out in compliance with the guidelines of the Declaration of Helsinki.

Results

This systematic literature review was carried on the 25th of February 2023 and reported with the help of PRISMA guidelines. Titles were reviewed, with non-English language articles and empirical studies published earlier than 2013, not investigating community-dwelling older adults (50+ years) being excluded. Abstracts of the remaining papers were checked for relevance according to inclusion criteria, leaving 13 relevant papers for the systematic literature review. The researcher felt that widening the inclusion criteria may have yielded a greater number of papers; however, there were concerns over the quality and relevance of the articles retrieved. Results are presented in table 1.

The search performed in February 2023 in the database PsycINFO, and the additional search was performed on Google Scholar. No distinction has been made between the variables in question, and different types of loneliness. Most studies used the UCLA Loneliness Scale (Russell, 1996) to collect data on loneliness, in the form of interviews or questionnaires. Eight studies used questionnaires as a method of measurement, and six studies used interviews. Original articles were collected from journals such as International Journal of Geriatric Psychiatry, International Journal of Psychology, Canadian Journal of Aging, BMJ journals, Journal of Biobehavioral Medicine, Australian Occupational Therapy Journal and International Journal of Environmental Research and Public Health.

Sample details

All 13 papers detailed the proportion of male to female respondents, with most participants being female. Male participants comprised a majority in only one of the studies. Sample sizes ranged from 356 to 11498 participants; however, most of the studies assessed a smaller number of participants with a mean sample size of 3046.71 participants. Participant groups included were community-dwelling older adults in Spain (Martín-María et al., 2021; Pedro et al., 2021), Australia (Joyce et al., 2022; Stanley et al., 2017) , California (Greene et al., 2018), Canada (Savage et al., 2021), Germany (Boehlen et al., 2015; O'Súilleabháin et al., 2019) , Taiwan (Chen et al., 2013; Susanty et al., 2022), Thailand (Pengpid & Peltzer, 2023), France (Tabue Teguo et al., 2016) and The Nederlands (de Jong Gierveld et al., 2015; Aarts et al., 2015).

Gender and loneliness

Ten of the studies investigated differences in feeling of loneliness between men and women. Consistent with previous findings, gender appeared to have a significant impact upon the feeling of loneliness, as most studies revealed that women tend to feel lonelier than men (n = 8). However, two studies reported that men are at risk of feeling lonelier than women (de Jong Gierveld et al., 2015; Aarts et al., 2015). However, gender differences were not apparent in all studies suggesting that these findings should be interpreted with caution. Aarts (2015) and Greene (2018) established no significant differences between males and females.

Age and loneliness

Only nine of the 13 studies investigated the impact of age on loneliness. Of these, seven studies showed that that an increase in age also increases the risk of loneliness among older adults. However, two studies showed that an increase in age, decreased the risk of experiencing loneliness (Savage et al., 2021; Aarts et al., 2015). Some studies compared age groups (n = 3), and other investigated age in general ranging from 50-98 years of age (n = 9). Not all studies provided the mean age or age ranges of participant and others split the results according to gender.

Living situation and loneliness

Ten studies investigated the role of different living situations on loneliness, regarding whether one lives alone or with others, and/or current marital status. Of these, eight of the studies showed a positive association between living alone and feeling lonely, which is consistent with previous findings. Three of the studies also revealed that being widowed was associated with being lonelier. Pengpid & Peltzer (2023) specified that widowed people had a higher risk of indecent loneliness. All findings on living situation were statistically significant, except the study conducted by Tabue Teguo (2016).

Table 1: A summary of the reviewed papers

	Author	Design and methods (tool)	Sample details, N (% Female) Mean age (SD)	Age	Living situation	Gender (men versus women)
#1	(Pedro et al., 2021)	Population-based. Telephone interviews (GHQ-12 and COOP-Wonca)	N = 2060 (61.4 %) 73.3 (SD not provided) y.o	Not assessed	Association between living alone and feeling lonely (c2 = 100.99, p < 0.001, Cramer's V = .22).	Not assessed
#2	(Joyce et al., 2022)	Cohort design (5 years) Questionnaire (CES-D-10)	N = 11498 (53.3 %) 75.0 (4.2) y.o	Being younger (70-74 y.o versus 75 y.o and older) was associated with less loneliness (P = 0.04)	Living with a partner was associated with less loneliness (p<0.001)	Women reported loneliness more frequently (p<0.001)
#3	(Martín-María et al., 2021)	Longitudinal study (7 years) Interview (3-item UCLA)	N = 1190 (53.4 %) 63.7 (9.50) y.o at baseline	Not assessed	Married or cohabitating people comprised almost two thirds loneliness (61.25%) (P < 0.001; Cramer's V = 0.22).	Women reported more loneliness, both transient (61.9%) and chronical (75.0%) types.
#4	(O'Súilleabháin et al., 2019)	Cohort design Interview (UCLA)	N = 413 (61.3 %) 84.5 (8.61) y.o	Not assessed	Emotional loneliness is more frequent when living alone (p<0.005)	Not assessed
#5	(Tabue Teguo et al., 2016)	The PAQUID study Questionnaire (French version of CES-D-10)	N = 3620 (58.0 %) Mean age not provided.	Loneliness was more frequent with older age (76.5 vs 75.0 y.o) (p <0.001)	Loneliness was more frequent in people living alone (24.9%) versus people living with others (5.6%) (p>0.05).	Women reported significantly more loneliness (82.7%) then men (53.9%) (p<0.001).
#6	(Boehlen et al., 2015)	Population-based German ESTHER study (3-item UCLA interview)	N = 3111 (52.5 %) Mean age not provided	Difference in loneliness score between age groups (p = 0.069).	Not assessed	Women scores significantly higher on loneliness (4.7± 2.0 vs. 3.9 ± 1.5, p<0.0001)
#7	(Aarts et al., 2015)	LISS Panel study Questionnaire (6-item Loneliness Scale	N = 626 (50.5 %) 66.9 (5.99) y.o	Older adults (+75 y.o) reported less emotional loneliness than adults aged 60-64 y.o, (P = 0.851)	Not assessed	Women reported to be less lonely (p = 0.006)

		(Gierveld & van Tilburg, 2006))				
#8	(Chen et al., 2013; Shankar et al., 2013)	ELSA Panel study Questionnaire (three-item UCLA)	N = 6034 (54.7%) 65.6 (9.5) y.o at baseline	Not assessed	Social isolation was positively associated with loneliness (B (SE) = 0.03 (0.002), $p < .001$, $\beta = .24$).	Not assessed
#9	(de Jong Gierveld et al., 2015)	Statistics Canada's General Social questionnaire (Cycle 22)	N = 3799 (55.2%) Mean age not provided	Age was not significantly associated with loneliness ($p>0.05$).	Being widowed, divorced/ separated, or never married was significantly associated with being lonelier compared to being married. ($p<0.05$)	Men reported to be significantly lonelier ($p<0.001$)
#10	(Savage et al., 2021)	Cross-sectional design assessing loneliness during the covid-19 pandemic	N = 4879 (71.0%) Mean age not provided	Increasing age group decreased the odds of loneliness (aOR 0.69, 95% CI 0.59 to 0.81)	Living alone was associated with loneliness (aOR 4.26, 95% CI 3.15 to 5.76)	Women had increased odds of loneliness (OR 1.52, 95% CI 1.13 to 2.04)
#11	(Susanty et al., 2022)	Cross-sectional design Questionnaire (UCLA)	N = 1360 (59.6 %) 66.28 (6.39) y.o	Age was significantly associated with loneliness (OR = 1.04, 95 CI: 1.02-1.06, $p<0.001$)	Living alone provides a lower odd of loneliness than living with one's family (OR = 0.25, 95% CI 0.13-0.48, $p<0.001$)	Women were more likely to experience loneliness (OR = 1.65, 95% CI: 1.31-2.07, $p<0.001$)
#12	(Pengpid & Peltzer, 2023)	Cross-sectional design Interview (UCLA)	N = 3696 (53.5%) Mean age not provided	Older age (65+ years) was positively associated with incident loneliness (COR 1.58, 95% CI: 1.32-1.89)	Widowed was positively associated with incident loneliness (COR 1.48, 95% CI: 1.21- 1.80)	Being male was negatively associated with incident loneliness (COR 0.82, 95% CI: 0.68-0.97)
#13	(Greene et al., 2018)	Cross-sectional design Questionnaire (8-item UCLA)	N = 356 (13.4%) Mean age not proved	Age was positively associated with loneliness, however not significant ($p = 0.90$)	Not assessed	Women were more likely to experience loneliness, however not significant ($p = 0.81$)

Statistical significance at $p<0.05$, SD = standard deviation, OR = odds ratio, AOR = adjusted odds ratio, CI = confidence interval, y.o = years old, COR = Crude Odds Ratio, CES-D-10 = Scale center for Epidemiological Studies -Depression, UCLA = University of California Loneliness Scale

Discussion

This study was designed to systematically review the role of gender, age and living situation on loneliness in community-dwelling older adults. A systematic literature review was appropriate for getting insight about the research question as it provides a comprehensive overview of the current literature. One can synthetize previous work to strengthen the knowledge of loneliness in older adults, and systematically investigate transparency and bias. The findings of this studies identified though this review have yielded some mixed results.

Discussion of findings

It is generally difficult to identify why older adults are lonely, and therefore it can also be challenging to say something about who are most at risk. Older adults are faced with several relevant transition phases in life such as becoming socially isolated for a variety of reasons, getting older or weaker, starting retirement, leaving one's workplace, death of spouses and friends, no longer being the hub of one's family, or though disability or illness (Vrkljan et al., 2019).

Regarding age, most studies (n = 7) showed that an increase in age also increases the risk of loneliness among older adults, which are similar results to previous studies. However, two studies showed that an increase in age, decreased the risk of experiencing loneliness (Savage et al., 2021; Aarts et al., 2015). Neither Aarts (2015), nor Savage (2015) discussed these findings any further.

Consistent with previous findings, gender appeared to have a significant impact upon feelings of loneliness, as most studies (n = 8) revealed that women tend to feel lonelier than men. These results are a somewhat surprising as many studies have also revealed men to lonelier than women (Kim & Lee, 2022). However, two studies reported that men are at risk of feeling lonelier than women (de Jong Gierveld et al., 2015; Aarts et al., 2015). The cause for these finding remains unclear, but one possible interpretation is that men and women differ in their social relations. Some studies have revealed that older men prefer familiar and well-known social networks, whereas older women tend to enlarge their social networks (Schwartz & Litwin, 2018). Men are more inclines to rely on spousal relationships for maintaining their health and well-being later in life compared to women and women rely more on an extended network (Guo et al., 2021; Schwartz & Litwin, 2018).

In the current review, there is a bias related to the study population distribution between women and men, as women were often the majority. Previous studies also indicate that women have a higher tendency to participate in health research than men, which may have contributed to bias (Otufowora et al., 2021). One possible explanation for women to feel moe lonely than men is that women tend to live longer compared to men. A woman may live longer without a spouse, which may shrink her family network and increase loneliness (Harling et al., 2020; Powell et al., 2021).

Social relationships are important for the maintenance of cognitive function at older ages (Rafnsson et al., 2020). Eight of the studies showed a positive association between living alone and feeling lonely. Three of the studies also revealed that being widowed was associated with being lonelier. Pengpid & Peltzer (2023) specified that widowed people had a higher risk of indecent loneliness. Savage (2021) explains the effect of living alone on loneliness may be greater in men because they tend to have fewer social contacts and close friends than women (Dykstra & Fokkema, 2007; Victor et al., 2006). There appears to be an association between living alone and social relationships.

Internal and external validity

Validity refers to how accurately a method measures what it is intended to measure (Cencic, 2020). The results of high validity research correspond to real characteristics and variations in population. The internal validity of a study relates to how well a studies in the review are conducted i.e. the extent to which the observed results represent the truth in the studied population and are not due to methodological errors (Patino & Ferreira, 2018). The discussions of internal validity in this study therefore primarily focuses on whether the measuring instruments are valid and free of bias. The instrument used to measure loneliness in almost all of the studies in the review was the University of California Loneliness Scale (UCLA), which is considered as a valid and reliable tool (Russell, 1996). Most studies used the UCLA Loneliness scale to measure loneliness, however Aarts (2015) was the only study to use the 6-item loneliness scale (Gierveld & van Tilburg, 2006). The results from Aarts (2015) revealed differing results on both the role of gender and age on loneliness. One potential factor challenging generalization of results is related to the use of different methods to measure loneliness, as this may influence the results.

The external validity of this literature review refers to the extent to which the results can be accurately generalized to the elderly population living at home. The study population appear representative as all studies in the review included a study population with community-dwelling older adults with appropriate age (50 + years old) and included both genders. However, the gender distribution was shewed as in most studies had a study population mostly consisting of women.

Methodological considerations

The choice of study design in the different studies in the review may affect results. Most of the studies in this review used either a cross-sectional design or a cohort design. A cross-sectional study does not allow examining a sequence of events but rather examines associations only at one point of time (Levin, 2006). The design allows a relatively fast and large data collection to be made at little or no expense. The results of a cross-sectional study can act as suggestions on what variables are worth pursuing using experimental methods and for the generation of hypotheses. This design is also useful for public health planning and understanding etiology in general. The results of the present study should also be interpreted considering some possible limitations related to study design. A major limitation to the cross-sectional design is that it cannot provide temporal relationships and therefore not prove causality (Boushey et al., 2006; Pandis, 2014). If the aim is to investigate causal relationships, one must resort to randomized controlled trials. The variables investigated in a cross-sectional study cannot be used to analyze behavior over a period to time, as the design only provide a snapshot. The timing of the snapshot is not guaranteed to be representative for the actual situation. This design is prone to information and selection and bias and confounding (Pandis, 2014). Compared to the cross-sectional study design, the cohort design does provide a more clearly temporal sequence between exposure and outcome. One can follow a vast number of participants over time, although time and resource consuming (Song & Chung, 2010). As cohort studies can last for a long time, the risk of loss to follow up increases which may introducing bias. Given the use of mostly cohort and cross-sectional design in studies included in the review, causation should not be inferred.

Study population

One major strength of this review is related to the size of study populations. Only two of the studies included had a study population smaller than 1000 participants. It is statistically important to have a large sample size as larger studies provide stronger and more reliable results. The reason for this is that a larger study population provides smaller margins of error and lower standards of deviation.

In the studies using questionnaires to measure loneliness (n = 8), no information about the non-responding participants was available, and the reason for non-responding is therefore unknown. This is a limitation of the study since these patients could have differed from the ones who were included (selection bias) (Pannucci & Wilkins, 2010). It is conceivable that people who voluntarily enroll in a health study are not representative of the general population as they are on average healthier, both psychically and mentally (Shrank et al., 2011). There are also some bias related to the studies using interviews (n = 6). Bias may occur when participants for different reasons provide incorrect data to the interviewer.

Strength and limitations of this review

A systematic literature review involves a thorough search of all available data on a certain topic. Some of the main benefits is that it provides transparency, accuracy, replicability, and reduced risk of bias. It is rigorous form of literature review and described as "*the most reliable and comprehensive statement about what works*" by Petrosino et al (2008) (van der Knaap et al., 2008). One may identify, synthesize, and assess available evidence, qualitative and/or quantitative, to generate an empirically and robust answer to a focused research question.

In general, a systematic literature review may come with the risk of bias like inadequate binding, selection bias, attrition bias and selective outcome reporting. Inconsistency may also occur, including statistical heterogeneity. A varying degrees of imprecision can lead to errors (both Type I and Type II error) (Owens, 2021). Another important consideration is related to publication bias, as studies that have shown statistically significant results are often preferable to publish. Although the studies in a review are not statistically significant, they may be clinically significant and thus have a purpose for clinical providers.

In retrospect, there are some elements of the review that could have been done differently. In this study, the primary search was done only in one database, PsycINFO, as well as an additional search on Google Scholar. It is conceivable that if one preformed a search in several relevant databases that one could have found other studies also relevant in the given framework and for the research question. It is also relevant that this review may have missed relevant literature that has not been published digitally, for example studies mentioned in books and in physically printed journals. Older literature could potentially have tightened the gap in knowledge on the theme and research question. An alternative that may have strengthen the review would be to use other key words that would have broadened the search.

Historical implications

The studies included in the review were published in the last 10 years (between 2013-2023). This period includes a historically relevant event may have influenced the study results to a significant extent: the covid-19 pandemic. According to a multi-center study conducted by O'Sullivan (2021), the prevalence of loneliness increased from 6% prior to covid to 21% during covid (O'Sullivan et al., 2021). Loneliness was also strongly associated with loss of contact with friends and family, as well as reduced social interactions and participation in the community.

Fu & Xi (2021) found that there was a significant positive relationship between the use of social media and mental health in older adults (Fu & Xie, 2021). Another study from 2020 also revealed that a higher level of social media communication is significantly associated with lower levels of loneliness through perceived social support and social contact among older adults (Zhang et al.). Social media use provides a new dimension of communication for older adults to connect with people and to maintain social relationships. However, the older generations may face challenges using social media as a communication channel (Mace et al., 2022). Older adults may face challenges in relation to learning and applying the use of social media and technology in general. For this reason, an existing theory is that the elderly may have experienced more loneliness than the population in general during the covid-19 pandemic. This has not been confirmed in research but is an interesting topic to future research.

Another limitation was related to loneliness as a main or additional study outcome. Several of the studies investigated loneliness as one of several outcomes, and not a main outcome. All outcomes are therefore not equally strongly investigated and discussed. While some studies investigated different types of loneliness, like social and emotional loneliness, the researcher finds it important to investigate and report on each type separately for future studies to create a better understanding of the patterns that emerge.

Future perspectives

This study may provide valuable insight to further understanding the association between loneliness and older adults. Stanley (2017) conducted an interesting quantitative study (Stanley et al., 2017). One obtains no efficacy measures related to age, gender or living situation in older adults in this study, however findings are interesting. In this study, participants recorded time spent alone in a time diary for three days. Transcripts were analyzed thematically and revealed three themes: (1) “It is a matter of getting some balance’”, (2) “Keeping busy”, and (3) “The nights are the worst”. These themes may provide a valuable insight into the mind of lonely older adults and create a foundation for how to work further towards this group.

During the literature search, the importance of body weight related to loneliness was pointed out. Overweight or obese people experience both chronic and transient loneliness more frequently (Martín-María et al., 2021). Loneliness is also significantly associated with quality of life, perception of health status, and other health-related variables (including some chronic diseases). Both the role of overweight and obesity among older adults with loneliness, and potential measures to prevent loneliness in vulnerable older adult groups may be interesting topics to research further.

Conclusion

This study was designed to systematically review the role of gender, age and living situation on loneliness in community-dwelling older adults. Loneliness is common among community-dwelling older adults, and results revealed that being a woman, older age and living alone are risk factors of feeling lonely. However, previous studies have mainly been based on quantitative analysis or included a limited number of variables. This paper may contribute to providing current information on the topic, and for further reflection on who are more prone to being lonely. With this knowledge, one may be more aware of who is at risk and create adapted interventions and measures aimed at these target groups. While this study only conducted a systematic review of loneliness literature the past 10 years, in doing so it highlights important areas for future research.

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