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Social Isolation and Loneliness in Older Adults: Health Consequences, Screening, and Social Prescribing in Primary Care

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Abstract

Population ageing has been accelerating globally. This rise is accompanied by an increase in chronic diseases in the older population. Similarly, some other conditions that extend beyond traditional biomedical diseases like social isolation and loneliness have also been in focus. Although closely related, social isolation and loneliness represent distinct dimensions. Social isolation refers to the lack of social contact of an individual with others, whereas loneliness is the subjective perception of an individual about social relationships. However, both of these conditions are associated with adverse health outcomes regarding cognition, heart health and overall risk of mortality. Affected patients also have high healthcare utilization. Primary care provides a great opportunity for clinicians to screen for individuals at higher risk of social isolation and loneliness. Social prescribing, which connects patients with community resources often through a link worker, is a promising approach. Current evidence suggests possible benefits for loneliness, social participation and well-being, but studies are heterogeneous and long-term effectiveness has not been established. This narrative review summarizes the health consequences of social isolation and loneliness in older adults and provides a framework for effective screening and interventions in primary care.

Categories: Family/General Practice, Genetics
Keywords: elderly, older adult, social isolation, social isolation in the elderly, social prescribing

Introduction And Background

The increase in the ageing population is accelerating worldwide. This is accompanied by an increasing burden of chronic health conditions among this population [1]. Population ageing also exerts significant pressure on healthcare systems as evidence shows that approximately half of older adults have two or more chronic conditions [2]. The coexistence of multiple chronic conditions can further heighten older adults' vulnerability to social isolation by limiting mobility, increasing dependence on care, and constraining opportunities for social participation. However, certain conditions extend beyond traditional biomedical diseases such as loneliness and social isolation. Social isolation and loneliness are not the same; rather, they represent two distinct concepts [3,4]. Older adults may be particularly prone to these conditions due to changes in their lifestyle that may include retirement, bereavement or any other physical issues. These changes can have a profound impact on the social network of an individual [5]. Due to the impact on older adults, social isolation and loneliness are increasingly recognized as major geriatric and public health concerns [4,6].

Current evidence consistently demonstrates that social disconnection has significant physical and mental consequences for older adults. Loneliness and social isolation have been associated with cardiovascular disease and stroke, depression, functional decline, cognitive decline and poorer quality of life [4,7-9]. Furthermore, evidence also shows that older adults who suffer from loneliness and social isolation have greater use of hospital and emergency services, which places a significant burden on healthcare systems [10].

Despite their clinical significance, loneliness and social isolation may remain unrecognized during routine healthcare encounters [11]. Older adults with chronic conditions often have long-term relationships with primary care professionals, which makes primary care a logical setting in which to identify those at risk [6,12]. Therefore, screening programs can be incorporated at this stage to identify older adults at risk of loneliness and social isolation. Clinicians can utilize validated instruments like University of California at Los Angeles (UCLA) Loneliness Scale and Lubben Social Network Scale for loneliness and social isolation, respectively [13,14]. However, the purpose of screening should not be just isolation assessment; rather, contributing factors to loneliness and social isolation should be explored and available social support should be provided to affected individuals [15]. Social prescribing is one way to provide such support [16].

Evidence suggests potential benefits for social participation, loneliness and well-being, although programs are heterogeneous [17-19]. This review aims to summarize health consequences of loneliness and social isolation in older adults and offers framework for screening and social prescribing in primary care.

Review

This narrative review aimed to provide an overview of social isolation and loneliness among older adults. A narrative review approach was adopted for this review due to heterogeneity of available evidence on this topic. To limit selection bias, an explicit search strategy, eligibility criteria and selection process were applied. A search was undertaken in various databases, including PubMed and Google Scholar, to identify relevant studies. Studies were searched from inception to October 17, 2026. The reference lists of included studies were also searched for further potential studies. The search used combinations of terms related to the main concepts of the review, including “social isolation,” “loneliness,” “older adults,” “cognitive decline,” “cardiovascular disease,” and “social prescribing”. Boolean operators AND and OR were used to combine search terms. The complete search strategy for PubMed is presented in Table *1*. Relevant articles were selected based on their contribution to the topic. The identified evidence was reviewed and narratively synthesized into major themes of review. Since this is a narrative review article, neither the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRIMSA) flow nor bias assessment was conducted.

Key Variable	Sub terms	Search options	PubMed (October 17, 2026)
1. Social isolation	#1 social isolation	Mesh	31051
	#2 social isolation	TI/AB	18720
	#3 loneliness	TI/AB	19944
	#4 social disconnection	TI/AB	448
((("Social Isolation"[Mesh]) OR (social isolation[Title/Abstract])) OR (loneliness[Title/Abstract])) OR (social disconnection[Title/Abstract])			52753
2. Older adults	#1 older adults	TI/AB	183546
	#2 older people	TI/AB	50453
	#3 elderly	TI/AB	344729
	#4 aged	Mesh	3951535
(((older adults[Title/Abstract]) OR (older people[Title/Abstract])) OR (elderly[Title/Abstract])) OR ("Aged"[Mesh])			4108766
3. Health consequences	#1 cognitive decline	TI/AB	52155
	#2 functional decline	TI/AB	10970
	#3 healthcare utilization	TI/AB	11954
	#4 social prescribing	TI/AB	907
	#5 risk factors	TI/AB	741461
	#6 cardiovascular disease	TI/AB	219317
(((((cognitive decline[Title/Abstract]) OR (functional decline[Title/Abstract])) OR (healthcare utilization[Title/Abstract])) OR (social prescribing[Title/Abstract])) OR (risk factors[Title/Abstract])) OR (cardiovascular disease[Title/Abstract])			977752
(((((((cognitive decline[Title/Abstract]) OR (functional decline[Title/Abstract])) OR (healthcare utilization[Title/Abstract])) OR (social prescribing[Title/Abstract])) OR (risk factors[Title/Abstract])) OR (cardiovascular disease[Title/Abstract])) AND ((((("Social Isolation"[Mesh]) OR (social isolation[Title/Abstract])) OR (loneliness[Title/Abstract])) OR (social disconnection[Title/Abstract]))) AND ((((older adults[Title/Abstract]) OR (older people[Title/Abstract])) OR (elderly[Title/Abstract])) OR ("Aged"[Mesh]))			1886

TABLE 1: Search strategy for this review (PubMed)

In Google Scholar, the following search string was used: (“social isolation” OR loneliness OR “social disconnection”) (“older adults” OR “older people” OR elderly) (“cognitive decline” OR “functional decline” OR “healthcare utilization” OR “social prescribing” OR “cardiovascular disease” OR “risk factors”). Results were sorted by relevance, and the first 629 records were screened, as relevance declined markedly beyond this point.

The inclusion criteria for this review were adults aged 50 years or older. Studies of younger individuals were considered when there was a paucity of research involving older individuals on the same topic. For instance, mechanistic evidence or large studies that were relevant to the topic were also considered even if they involved younger individuals. Studies were only considered if they addressed any of the topics covered in this review like the prevalence or risk factors, mortality data, cognitive and functional outcomes, primary care, and social prescribing. Only studies published in the English language were considered for this review. Conference abstracts, editorials, letters and opinion pieces that did not synthesize or analyze evidence were excluded from this review. Studies exclusively of children, adolescents or younger adults were also excluded. Furthermore, studies in which social isolation was not the exposure, outcome or intervention were also excluded. Publications not in the English language were also excluded. Records retrieved from each database were exported and duplicates were removed. Titles and abstracts were screened against the eligibility criteria by two reviewers. Full texts of potentially eligible records were then assessed by both reviewers and disagreements were resolved by involving a third reviewer.

Definitions, epidemiology and risk factors

Social isolation and loneliness are related, but their dimension of social disconnection vary in older adults as one pertains to an objective lack of social contact whereas the other refers to the subjective perception of

an individual regarding social relationships [4]. They do not necessarily coexist. For instance, an older person may have only a few contacts but may not feel lonely, whereas another person may experience loneliness but still have frequent contact with others [20]. Similarly, living alone does not mean that a person feels lonely and such state should not be considered synonymous with social isolation or loneliness [21]. Because of this distinction, the two need to be assessed separately. Prevalence of social isolation is high in older adults. Teo et al. reported a 25% prevalence of of social isolation among community-dwelling older adults [22]. European data show wide regional variation in loneliness, from about 10%-20% of older people in north-western Europe to 30%-55% in central and eastern Europe [23].

Another review of studies reported that the range of reported prevalence varies significantly, with 5% to 65.3% of individuals suffering from loneliness and 2% to 56.5% of individuals with social isolation. This shows considerable heterogeneity among reported studies, which may be due to differences in definitions and included populations [24]. This data confirms that social disconnection is not an individual problem but a population health concern. Several factors can contribute to social isolation and loneliness in older adults. Retirement has been associated with greater loneliness in Australia and the United States, although not in China [25]. Similarly, lower socioeconomic status, unemployment and dependence on welfare have been associated with both social isolation and loneliness [20]. Bereavement, particularly loss of a spouse, relatives or close friends may have a significant impact on the social network of an individual [26].

Mental, physical and functional health consequences

Loneliness and depression often go hand in hand. However, this relationship seems to flow in one direction. A five-year study of adults aged 50-68 years reported that loneliness often came first and depression followed later, whereas depression did not predict future loneliness. This pattern remained true even when accounted for actual isolation, stress levels and support received [27]. Similarly, a systematic review also confirmed that loneliness was associated with depression that develops later in patients [28]. The psychological impact of loneliness extends beyond depression. For instance, loneliness also worsens anxiety and interferes with sleep and quality of life, which creates a cycle where distress and social withdrawal feed into each other [15]. The impact of social isolation is also reported on memory and thinking abilities, which raises the risk of dementia. A large meta-analysis of over 600,000 people by Luchetti et al. reported that loneliness increased the risk of all-cause dementia (hazard ratio (HR): 1.306, 95% confidence interval (CI): 1.197, 1.426), Alzheimer's disease and cognitive impairment [29].

Similarly, a systematic review by Harrington et al. reported that loneliness was linked to weaker memory in older adults who have not yet developed dementia [30]. Cardona and Andrés found that both loneliness and social isolation were associated with cognitive decline, with depression serving as a mediator between social isolation and cognitive decline [31]. Evidence shows that actual social isolation may affect test scores more strongly than feelings of loneliness [32]. However, as these studies observe people over time rather than test cause and effect directly, it is possible that early memory loss may be a contributing factor towards loss of social connections [32]. The physical consequences of loneliness and social isolation are significant. A meta-analysis of 70 studies found that social isolation, loneliness and living alone increased the risk of death by 29%, 26% and 32%, respectively [8]. A newer meta-analysis by Nakou et al. of 86 studies reported that loneliness increased risk of death by 14%, social isolation by 35%, and living alone by 21% [21].

Cardiovascular disease is another major consequence. For instance, a meta-analysis by Valtorta et al. investigated the effect of loneliness and social isolation on coronary heart disease and stroke. Their findings, based on evidence from 23 studies, showed that weak social ties increased the risk of coronary heart disease by 29% and the risk of stroke by 32% [7]. Loneliness also impacts the ability of an individual to live independently. This was evidenced in a large study of Americans over the age of 60 years. They showed that individuals suffering from loneliness were 59% more likely to experience functional decline and 45% more likely to die within six years. The affected individuals struggled with everyday tasks, walking and climbing stairs [33]. Social isolation has also been associated with physical frailty in cross-sectional studies, although longitudinal findings are mixed [34].

Proposed biological and behavioral mechanisms

One proposed biological pathway is the body's response to prolonged stress. Persistent loneliness can enhance the sensitivity of an individual regarding social threats and psychological stress. This can affect the sympathetic nervous system and hypothalamic-pituitary-adrenal axis, which are involved in the physiological stress response [35]. Repeated activation of these systems may contribute to changes in blood pressure and metabolic processes. These effects may partly explain the association observed between social disconnection and cardiovascular disease [36]. Another possible mechanism is chronic inflammation. Social isolation and loneliness also impact immune regulation [37]. Matthews et al. reported that social isolation was associated with an increase in inflammatory markers like C-reactive protein and interleukin-6 [38]. Similar evidence has been reported by Smith et al. in their systematic review and meta-analyses, which found that loneliness and social isolation were associated with inflammatory markers [39].

Several mechanisms can explain the cognitive decline observed in older patients suffering from loneliness and social isolation. These include reduced cognitive stimulation, sleep disturbance, depression,

cardiovascular risk factors, inflammation and changes in physiological stress regulation [40]. Health behaviors are another aspect that can explain the relationship between social disconnection and poor health. Supportive behavior can encourage physical activity and treatment adherence, whereas older adults with limited social support may have fewer opportunities or less motivation to maintain social connections [41]. The importance of these pathways is reflected in mortality research. A large meta-analysis of 148 studies involving 308,849 participants reported that individuals with stronger social relationships have a 50% greater likelihood of survival [42]. This evidence confirms that social isolation and loneliness are clinical factors rather than just social circumstances.

Screening and assessment in primary care

Older adults with little social contact usually visit their primary care provider regularly, because the burden of chronic disease and medication is high in this age group [43]. The prevalence of loneliness in primary care settings is high. A study by Mullen et al. reported that 20% of patients in primary care suffered from loneliness, with age having an inverse relationship with loneliness and being less likely in married individuals [44]. Screening tools can be easily used by clinicians during regular appointments to screen for loneliness and social isolation. Lubben Social Network Scale (LSNS-6) is a six-item tool that assesses the relationship of an individual with relatives and friends and support received from them [45].

The University of California at Los Angeles (UCLA) Loneliness Scale is a three-item scale that can be used to screen for loneliness in primary care. As it only contains three questions, its incorporation in routine care is relatively simple. It focuses on feelings such as lacking companionship, being left out and feeling isolated [14]. Screening should have a clear follow-up plan. A study by Pollak et al. used a three-item UCLA Loneliness Scale to assess loneliness in primary care. Their findings showed that 81% were screened for loneliness and identified that 33.3% were somewhat lonely and 17.7% were very lonely. Referrals were offered to lonely individuals. These findings showed that regular screening and referrals in primary care were feasible [46].

Interventions and social prescribing

Interventions for social isolation and loneliness in older adults need to be individualized as these experiences are often heterogeneous. Studies have shown that group-based activities, educational support groups and technology-based interventions can be effective for social isolation and loneliness [47,48]. Group activities can not only increase social contact but also help foster long-term relationships. However, no single intervention is effective for all. Therefore, every intervention should be tailored to an individual older patient's needs and preferences [47]. Social prescribing provides a framework for connecting primary care patients with non-clinical sources of support in their communities, such as social groups, exercise programs, volunteering and arts and educational activities [16]. This is based on the concept that loneliness should not be solely seen as a medical problem; rather, a clinician or other healthcare provider needs to identify the social needs of that particular individual and refer to community activities accordingly [49].

A systematic review that investigated the critical components of social prescribing in older adults reported that there are three main components of successful social prescribing. These included assessment before prescribing, matching the person with an appropriate activity and individualized support from a link worker who can facilitate engagement [19]. Evidence regarding social prescribing is encouraging but remains heterogeneous. A meta-review identified 11 broad intervention types, with group-based social activities, support groups incorporating education, recreational activities and information and communication technology training among the approaches showing the most consistent benefits [49]. A recent meta-analysis of randomized controlled trials also found that several intervention categories, including social, physical and arts-based approaches, may improve loneliness [50]. Primary care services should establish links with reliable community organizations for providing referrals [19,47].

Role of family physicians and multidisciplinary care

Family physicians have an important role in screening for social isolation and loneliness in older adults. They can easily identify changes in the social circumstances of the affected individuals [6,51]. Furthermore, physicians can explore preferred relationships of their patients and identify existing support systems. This approach enables physicians to move beyond screening towards identifying patient-centered interventions [12]. After identifying loneliness or social isolation, the family physician should be able to provide initial counselling to patients. Furthermore, family or caregivers can be involved to help connect with relevant community resources through social prescribing [19,51].

Multidisciplinary care is important in older adults with social isolation and loneliness because these conditions intersect with several healthcare domains, including psychological, functional and medical. For example, nurses can support ongoing assessment, whereas social workers can address financial and social needs. Apart from healthcare specialties, collaboration with community organizations is of utmost importance. This is because primary care teams can identify needs but cannot provide interventions [6,12].

Challenges, research gaps and future directions

Several challenges limit the effectiveness of appropriate screening, planning and management of social isolation and loneliness in older adults. A major challenge is the lack of a standardized definition of social isolation and loneliness. Studies use different conceptual definitions and screening instruments, which limits the generalizability of findings [52]. Furthermore, social isolation and loneliness are dynamic experiences, which means that they can change over time due to changing circumstances. Therefore, a single assessment may not accurately identify individuals at risk of social isolation [53]. Screening in primary care will have limited effectiveness unless adequate community resources are available. Studies have highlighted difficulties in coordination across healthcare services and social care [49]. Furthermore, available evidence on interventions for improving social isolation and loneliness is heterogeneous, with inconsistent outcome measures across studies. Group-based interventions seem to be promising, but their long-term effectiveness remains uncertain [47,52].

Several gaps exist on this topic in the literature. Longitudinal research is needed to identify periods when interventions can be most beneficial [53]. Research should also focus on components of interventions that work and should identify the specific patient population for which they can be most beneficial. Future studies should also be conducted in low-income countries as current evidence primarily arises from high-income countries [49]. Future directions should be focused on person-centered approaches in primary care. Screening should be linked to social prescribing to improve patient outcomes. The use of digital tools can help primary care physicians in identifying appropriate local resources [49]. Future trials should use standardized outcomes, longer follow-up and pragmatic real-world designs.

Limitations of this review

There are several limitations to this review, which should be considered while interpreting the findings of this review. The main limitation is that this is a narrative review. Although the search was structured, it was not exhaustive. Only two databases were included and language restriction was applied. Furthermore, no formal risk of bias was assessed for included studies. Therefore, selection and publication bias cannot be excluded from the findings. Another limitation is that the evidence summarized comes from systematic reviews and meta-analyses of observational studies, which are subject to confounding. Furthermore, definitions, instruments, populations and age thresholds differed across studies and some evidence comes from younger adults.

Conclusions

Social isolation and loneliness are distinct but related conditions that are consistently associated with depression, cognitive decline, cardiovascular disease, functional decline, higher mortality and greater healthcare utilization in older adults. Frequent contact with primary care makes it an important setting for brief, separate assessment of both conditions, linked to a clear follow-up plan. Social prescribing and other community-based interventions show promise for reducing loneliness and improving social participation, but heterogeneity and uncertain long-term effects mean that their effectiveness remains to be confirmed. Future research should prioritize standardized definitions and assessment approaches, consistent outcome measures and longer follow-up.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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