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Social Problems of Older Adults during the COVID-19 Pandemic: A Systematized Review

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Abstract

Background: While the coronavirus disease 2019 (COVID-19) pandemic devastated the healthcare systems, its consequences have been particularly severe for senior citizens. They have been at higher risk of being physically affected and faced more social and mental problems in the COVID-19 era. During the pandemic, they, more than other age groups, reported a feeling of loneliness, symptoms of depression, and anxiety, and, more than ever, faced ageism, discrimination, and elder abuse. Although many people can overcome social isolation in the light of social media and the internet, the elderly are not digitally literate and welcoming to technology like younger generations. Recognizing the unique needs of older adults must be considered in making health policies.

Methods: In this systematized review, we collected all studies originally written in English and containing relative information regarding the social problems of older adults during the pandemic in PubMed, Medline, Embase, Scopus, and Web of Science (n = 25).

Results: Findings were categorized into 3 main components: (1) body function and body structure, (2) activities and participation, and (3) environmental factors.

Conclusion: Social isolation has proven more debilitating for older adults, as they often lack equal access to the internet, nor are they equally welcoming to social media and the internet as younger generations. This negative impact is worse for those with chronic conditions, especially cognitive impairments.

Keywords: Coronavirus Disease 2019, Elderly, Mental Health, Social Problem

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Introduction

Coronavirus disease 2019 (COVID-19) emerged in 2019; it soon escalated into a pandemic; consequently, a global health crisis posed significant threats and unprecedented challenges to the world, and the increasing number of cases has crippled healthcare systems (1). Not only has it been more prevalent among elderly individuals, but it also leads

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↑What is "already known" in this topic:
Lockdown and quarantine in the COVID-19 era disrupted social cohesion in societies; however, younger generations could soon resume their social lives virtually through social media and the internet. Moreover, younger generations could still fulfill their needs by consulting with their physicians through telecommunication or shopping online. Technology has mitigated the confining consequences of social isolation of the pandemic for younger generations.

→What this article adds:
Senior citizens could not replace the lack of being in touch with their surroundings through the internet, and a feeling of loneliness, isolation, and anxiety bombarded them and aggravated their preexisting mental or cognitive impairments.
They could not have access to their caregivers or physicians, so their chronic conditions worsened, and they felt their lives were out of control.
Despite the effectiveness of the internet in tackling social isolation for younger generations, its role for older people was significantly limited.
Policymakers should notice the characteristics of this vulnerable age group, especially in crises like the pandemic.

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to more complications, an increased number of severe and critical conditions, a higher rate of hospitalizations and intensive care unit admissions, and higher mortality in this population (2, 3). Additionally, previous exposures to infectious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) outbreaks have already proven that the number of people affected mentally during such events exceeded the number of physically affected cases (4). It seems that as older adults are vulnerable to the consequences of COVID-19 on their physical health, their mental health is at a higher risk of being negatively affected by the pandemic than the rest of the population. Social isolation and loneliness among older adults have become particularly pronounced as public health measures, such as social distancing and lockdowns, have limited social interactions and opportunities for social engagement. Isolation has been linked to adverse mental health outcomes, including depression and anxiety, among older adults (5). Addressing the social problems of older adults during the COVID-19 pandemic requires a multifaceted approach. This includes targeted efforts to mitigate social isolation, enhance digital literacy, provide economic support, and strengthen the resilience of long-term care facilities. Community-based interventions, technological assistance programs, and policies that address the specific needs of older adults are crucial for promoting their social well-being during these challenging times (6, 7). Given the significance of social health and its accompanying impacts on quality of life and health, this review article aimed to evaluate the social problems of older adults during the pandemic.

Methods

Publication Search Strategy

A comprehensive literature review was conducted to evaluate the social problems of older adults during the pandemic. International databases and search engines, such as PubMed, Medline, Embase, Scopus, and Web of Science, were employed in the search. Different possible combinations of the keywords "social problems," "elderly," "SARS-CoV Disease," "coronavirus disease," "COVID-19," and "pandemic" were utilized using ‘‘AND’’ and ‘‘OR.’’ Any uncovered studies were also checked for in the collected research references. The titles and abstracts of every study were examined to choose relevant studies.

Study Selection

Studies meeting the following criteria were included in our review: (1) original English-language papers and (2) studies evaluating social problems in the elderly population during the pandemic. Studies with inadequate information on social problems were also excluded from our search (Figure 1).

Screening and Data Extraction

The publications were evaluated by 2 authors using specified inclusion and exclusion criteria. Titles and abstracts were initially screened. The same 2 authors then examined the full texts of the chosen articles. Only the papers selected by 1 author were further reviewed by a third reviewer, while the pieces chosen by both authors were included in

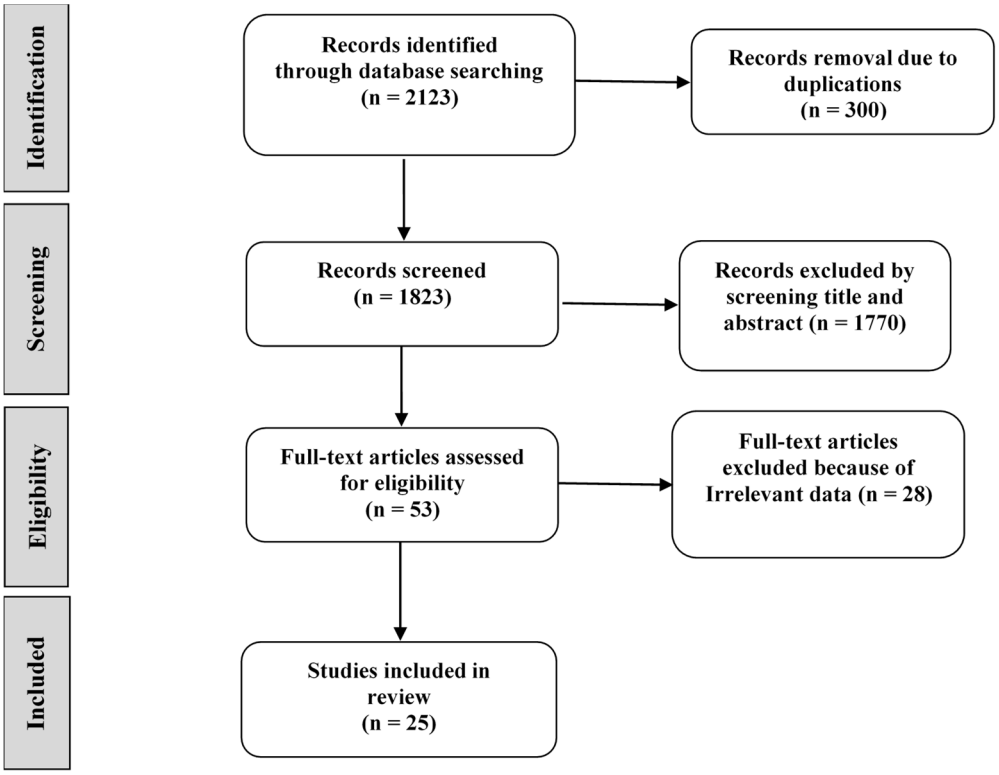

Figure 1. PRISMA flow diagram illustrating the selection of articles (51)

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Table 1. Quality assessment for included studies

Author (Year)	Selection				Comparability	Outcome			Overall score
	Representativeness of the exposed cohort	Selection of the nonexposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at the start of the study	Comparability of cohorts based on the design or analysis	Assessment of outcome	Was follow-up long enough for outcomes to occur	Adequacy of follow-up of cohorts	
MacLeod et al., (2021) (36)	*	*	*	*	**	*	*	*	9
Wu, (2020) (23)	*	*	*		**	*	*	*	8
Gorenko et al., (2021) (13)	*	*	*		**	*	*	*	8
Almeida et al., (2021) (14)	*	*	*				*	*	5
Applebaum et al., (2021) (45)	*	*	*		**	*	*	*	8
Asthana et al., (2021) (31)	*		*		**	*	*	*	7
Bacsu et al., (2021) (42)	*	*	*		**	*	*	*	8
Banerjee & Rao, (2021) (8)	*	*	*		*	*	*	*	7
Batra et al., (2020) (11)	*	*	*		**	*		*	7
Burlacu et al., (2021) (22)	*	*	*			*	*	*	6
Cerami et al., (2021) (29)			*	*	**	*		*	6
(Dos Santos et al., 2021) (28)	*	*	*		**	*	*	*	8
Duby et al., (2022) (24)	*		*		**	*	*	*	7
Farhang et al., (2022) (15)	*	*	*		**	*	*	*	8
Ferdous, (2021) (35)	*	*	*		*	*	*	*	7
Kasar & Karaman, (2021) (16)	*	*	*		**	*		*	7
Rodrigues et al., (2022) (39)	*	*	*	*	**	*	*	*	9
Smith et al., (2020) (37)	*	*	*		**	*	*	*	8
Tomaz et al., (2021) (38)	*	*	*		**	*	*	*	8
Marcos-Pardo et al., (2020) (41)	*	*	*				*	*	5
Dawes et al., (2020) (17)	*	*	*		*	*	*	*	7
Beam & Kim, (2020) (18)	*	*	*		**	*		*	7
Li & Huynh (2020) (50)	*	*	*			*	*	*	6
MacLeod et al., (2021) (44)			*	*	**	*		*	6
Wu, (2020) (19)	*	*	*		*	*	*	*	8

the study. Finally, from all considered research, the necessary data were separately extracted by 2 authors. The extracted data entailed the first author, their country of affiliation, study design, year of publication, sex and age of the patients, sample size, psychological problems, social isolation and loneliness, physical function problems, comorbid medical illness, and preexisting mental health conditions. Similarly, a third author evaluated each item in question whenever there was a disagreement in the extracted data.

Risk of Bias in Individual Studies (Quality Assessment)

The Newcastle–Ottawa scale for cross-sectional and case-control studies was used to assess the risk of bias in individual studies, with 9 points for case-control studies and cohort studies indicating high quality and low risk of bias 1-3, 4-6, and 7-9 categorized as of low, intermediate, and high quality, respectively, for case-control studies and 1-3, 4-5, and 6-8 classified as of low, intermediate, and high quality, respectively, for cross-sectional studies (Table 1).

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Results

Review of the Literature

Findings, extracted from these 25 papers, were categorized into 3 main components of human functioning based on the International Classification of Functioning, Disability, and Health model: (1) body function and body structure; (2) activities and participation; and (3) environmental factors. A detailed description of the findings of each of the levels is provided as follows.

Body Function and Structure

This section outlines the issues of participants' mental and physical function and structure during the COVID-19 pandemic.

Psychological Problems

Psychological problems encompass depression, manic episodes, and anxiety disorders. Depression is characterized by low mood, reduced interest in activities, loss or gain of weight, decrease or increase in appetite, sleep problems, and suicidal thoughts or suicide attempts with a particular plan (8). The second significant problem is manic episodes in such patients (8). These episodes include a long period of joy or extreme happiness. Agitation, extreme irritability, jumping from one idea to another, being easily distracted, increasing goal-directed activities and impulsive behavior, and unrealistic belief in one's abilities are also attributed to mania (9). Higher levels of depression were reported in older adults during COVID-19 by several studies (9, 10). The third set of mental health problems is anxiety disorders—including panic disorder, posttraumatic stress disorder (PTSD), and generalized anxiety disorder (9). PTSD is associated with a traumatic experience characterized by reexperiencing the trauma and avoiding related stimuli (8). Finally, generalized anxiety disorder is also seen as a consequence of the pandemic (11).

Social Isolation and Loneliness

Social isolation is defined as the objective state of having few social relationships or social contact with others, while a subjective feeling of isolation is defined as loneliness. Social isolation and loneliness represent serious, yet often underestimated public health risks affecting a significant proportion of older adults (12). The COVID-19 pandemic has increased the number of older adults socially isolated in both community settings and nursing homes since many countries have issued stay-at-home orders and banned visits for nursing home residents. In contrast, before the pandemic, it was different for most community-dwelling older adults who could actively participate in social activities and many social events (11, 13-19). Social isolation is positively correlated with a lower level of well-being (20). Social inclusion is defined as the existence of qualitative social relations and the coexistence of a social identity accompanied by a personal status, and it is born and shaped through socialization (21). On the other hand, social isolation is a form of social exclusion that directly affects the well-being of individuals and erodes social cohesion; thus, it cannot be considered solely an individual's problem while targeting society. The consequences will be more complicated when vulnerable groups of society, such as elderly individuals, are involved (22). For nursing home residents, family visits play a crucial role in feeling socially connected, and their family members are the only bond linking them to the outside world. However, due to the imposed lockdown policy, unfortunately, providing all these services mentioned above is no longer possible, leading to an increase in social isolation and loneliness in this vulnerable population. In addition, it has also negatively affected family caregivers, who are also adults themselves and are already at increased risk of anxiety, depression, and stress (23-25). Social isolation not only leads to health comorbidities but also initiates a cascade of complex psychosocial factors that deteriorate the health status of the elderly, including increased mortality, a higher sensitivity to dementia, a decline in cognition, depression, risky behavioral habits, and the commencement of disability and difficulty in daily activities. In terms of the risk of death, the impact of social isolation is comparable to smoking and exceeds that of obesity and immobility (22, 23, 26, 27). Despite the protective role of physical distancing or social isolation against the spread of the virus, at the same time, it leads to an increase in loneliness, especially in vulnerable groups; eventually, it gives rise to anxiety and distress, both of which are the most common mental health complaints; another negative consequence of social isolation is a rise in suicidal ideation (28). According to reports, loneliness tends to either stabilize or even slightly decline with age, even though it is assumed that loneliness increases as people age due to a combination of declining physical health and an accumulation of interpersonal losses. The degree of loneliness was stable between the ages of 60 and 80, but then increased after that, suggesting that older adults may be at a higher risk of loneliness than those in their later years (18, 29).

Preexisting Mental Health Conditions

Preexisting mental health conditions can potentially worsen a patient's vulnerability to the negative consequences of COVID-19. Some evidence suggests that patients already suffering from mental health conditions may be at a higher risk of COVID-19 infection due to factors such as difficulty in accessing healthcare services, cognitive impairment, decreased efforts regarding personal care, and being admitted to psychiatric wards (30); available evidence suggests that such patients are likely to be at higher risk of the mental impacts of the COVID-19 pandemic—including increased fear and anxiety and a decline in keeping in touch with others due to social isolation (9, 30, 31).

1. Physical Function Problems (Impairments)

Biological Factors: Stress-induced neuroinflammation may lead to neuronal atrophy, decreased synaptic density, reduced neurogenesis, and loss of glia in the hippocampus and the medial prefrontal cortex (mPFC), the brain regions involved in the control of emotion, mood, and cognition. Clinically, these neurobiological changes are associated with cardinal symptoms of depression (10). The activation of intrinsic immune receptors is one possible mechanism by which stress may precipitate neuronal atrophy in the mPFC. These receptors elicit inflammatory cytokines of IL-

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1α and TNF-α in mPFC microglia and lead to subsequent neuronal atrophy. This process is associated with stress-induced behaviors attributed to depression, such as social avoidance and anhedonia (32). Additional mechanisms through which stress may be at work through the neurobiological impacts of depressive symptoms, such as an increase in the level of additional inflammatory cytokines, including IL-6 and IFN-γ, dysregulation of other regions of the brain related to emotion circuits, such as the amygdala and dorsal anterior cingulate cortex, and excessive activation of the hypothalamic-pituitary-adrenal (HPA) axis. Notably, research shows that, at young ages, such changes induced by stress in the prefrontal cortex's (PFC) structure and function may not be permanent. Still, aging is associated with a decline in neuronal plasticity and resilience to the potentially detrimental impact of stress-induced changes in the PFC, such as a decrease and shrinkage in synaptic density through a loss in dendritic spines (33, 34). This evidence suggests that the neurobiological changes induced by stress are more inclined to have a long-lasting impact on older patients (31).

Neurodegenerative Disease as a Comorbidity: The incidence of neurodegenerative disorders demonstrates an increase with aging; in their presence, they will potentially limit the ability of an older adult to adjust to the stress, anxiety, and changes accompanying the COVID-19 pandemic (18). Depression has been recognized as a common symptom found in a variety of neurodegenerative diseases, such as Alzheimer's Disease, Parkinson's Disease, and Huntington's Disease. Hypothetically, the disruption of the HPA axis may cause depression in patients suffering from neurodegenerative diseases. Studies have shown increased HPA axis activities induced by a rise in beta-amyloid plaque concentration (35). People with dementia are experiencing substantial challenges imposed by the COVID-19 pandemic, such as fatigue and burnout in their caregivers, worsening neuropsychiatric symptoms, and deteriorating cognitive function. Moreover, factors such as living alone (16), dealing with advanced-stage dementia, and the length of being homebound, have been found to exacerbate the detrimental impacts of the pandemic (19, 36).

Comorbid Medical Illness: There is increasing evidence suggesting that an increased risk of depression or other affective disorders accompanies metabolic and cardiovascular diseases. The likelihood of depression in patients with diabetes was twice that of nondiabetic patients (30). Concurrently, mental health disorders such as depression, bipolar disorder, and schizophrenia have been reported with an increased risk of metabolic syndrome, likely as a result of the adverse effects of the medications taken to control the mental illness, such as first- and second-generation antipsychotics (37, 38).

2. Limitations and Restrictions in Activities and Participation

This explains the challenges imposed by the COVID-19 pandemic on participants in performing their roles in their personal lives, such as daily activities—including self-care, everyday domestic life, and mobility, and their role in social life (23).

Self-care and Everyday Domestic Life: Poverty, low income, and uncertainty about obtaining food to live on have aggravated susceptibility to poor mental health, including depression and anxiety disorders (29, 36, 39). People must restructure their daily activities and occupations to survive the pandemic (15). For a short time, a stressful situation may positively affect individuals to help their survival (28); however, events with severe and prolonged impacts, such as the pandemic, can overcome the mechanisms of resilience in older adults, leading them to social isolation (31). The COVID-19 pandemic has imposed mandatory social distancing, leading to social isolation, which is exceptionally destructive for older adults (8, 16). Despite addressing the impacts of the pandemic on older adults' health, its effects on this population's routines and social participation have not yet been discussed. Older adults could be at higher risk of loneliness and social isolation due to a lack of necessary resources for virtual social activities (39). Among the factors affecting participants' perceived health, household composition plays a crucial role, thus, living with at least one other person decreases the consequences of isolation on perceived health. This interaction could provide cognitive stimulation through complex communication and shared experiences and improve participants' perceived health (40). During the pandemic, despite the potential threat of spreading the virus within a household, the social support provided through living with others within a home could be a protective factor for mental health (38).

Mobility: Staying at home for a long time may lead to increased inactivity or decreased physical activity; long periods of inactivity increase the likelihood of developing or exacerbating chronic diseases (28). Aging is characterized by a progressive decline in muscle masses and their capacity to produce strength and power, resulting in reduced functional abilities such as standing up or walking (17). These age-related losses of muscle masses and their performances are referred to as sarcopenia (15), which will increase the risk of falls and fractures, contributing to the loss of independence and the deterioration in physical function and, eventually, the quality of life of older adults (35, 41).

Interpersonal Interactions and Relationships during the Pandemic: In the long-term care setting, virtual communication through the internet can mitigate the impact of social isolation on older adults' mental health; however, apart from difficulties in accessing the internet, computer illiteracy of older adults residing these places has drastically limited the usefulness of video calls or other types of virtual communication in this setting (17). The partners providing care for their advanced-age partner who has dementia are at risk of burnout in the pandemic due to losing access to formal services such as home and meal services (42). The impact of their exhausted care partners, along with the challenges of being confined at home, worsening neuropsychiatric symptoms, and deteriorating cognitive function, are some challenges posed to the elderly's life with dementia as a consequence of the COVID-19 pandemic (42). Advanced age populations belong to the vulnerable group affected aggressively by the COVID-19 pandemic, let alone those of this age group who are transgender; this group is dealing with "minority stress," including social insecurity,

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the experience of racism, unemployment, xenophobia, prejudice, lack of social welfare benefits, denied access to knowledge and awareness pertinent to the COVID-19 pandemic and its consequences (8, 43). They have already been deprived of their social rights, and the pandemic has made their condition worse (8). Disabilities put older adults at a higher risk of losing their autonomy and bringing about a decline in their social interactions; due to their limitations in mobility, they will no longer be able to engage in social activities physically (11).

3. Environmental Factors (Barriers and Facilitators)

Environmental factors encompass the social and physical characteristics of older adults' surroundings, such as "support" from or "relationships" with their friends, relatives, professionals, peers, and community, as well as their "attitude" toward elderly individuals. Services and policies should be designed to fulfill the needs of elderly people. "Products and technology" is a general term for devices and equipment older adults use daily (16).

Support, Relationships, and Attitude: Destitution, low income, and uncertainty regarding obtaining enough food to live on are factors increasing vulnerability to ending up suffering from poor mental health, such as depression and anxiety (8, 19). Imposed restrictions on family relationships due to the pandemic, accompanied by fear of domestic violence, unemployment, and financial stress, are other challenges of this era. However, the drastic changes in the life routine of older adults as well as in their social surroundings, including social distancing, concerns about their families, unexpected bereavements, home confinement, and worry about their future, are likely to have disproportionately impacted this age group, that all highlight the importance of the development of social connections in the pandemic (24). Evidence proves the supportive role of peer groups for older people suffering from loneliness (44). Access to digital technologies and increasing participation of older people in the virtual world helped them feel included socially. Intergenerational technology learning could help address the gap between generations regarding computer literacy (11, 44). Pets play a crucial role in the pandemic for older adults, as they have brought comfort, companionship, and support to their lives (45). The elderly would possibly be admitted to the hospital only in case of life-threatening conditions, as they are at higher risk of being neglected (35). One of the consequences of the pandemic on the healthcare system is that many manageable chronic diseases may experience deterioration, resulting in prolonged hospitalization and a financial burden on the systems (27, 35).

Products and Technology: Primary prevention strategies to protect the mental health of older adults during the pandemic include interventions to build a sense of social coherence, social support, optimism, self-esteem, and self-efficacy that mental health educators or psychiatrists can deliver through telepsychiatry. For secondary prevention strategies, screening and early treatment are of utmost necessity. Telepsychiatry is pivotal in providing primary and secondary preventive care for older people's mental health during the pandemic (17, 24). Technological issues along with resistance to changes, the cost of this technology, the level of digital literacy, socioeconomic status, the level of education, language barriers, lack of access to electronic devices or phones, and lack of internet access were some hindrances (11, 42, 44).

Services: There are obstacles to implementing these preventive measures, especially telepsychiatry. Internet access is an indispensable factor that could be affected by socioeconomic status or income status (17, 37). Accessing mental health itself is a stigma, let alone performing it through telepsychiatry (11). Approximately 87% of the wealthy elderly had internet access, while 27% of older adults with lower income had access to the internet (18). Socioeconomic risk factors were of more significance to older adults than other generations as older adults would no longer experience income increases; therefore, many retired or widowed older adults may not be paid enough money to access internet-capable technology. Not welcoming to technology was another hindering factor in accepting technology and its usage in this population (23).

Discussion

The mental and social health of older adults may be severely affected by the COVID-19 pandemic on personal, interpersonal, and social levels. Unfortunately, preexisting disparities between older adults and the rest of the population have experienced considerable growth due to the COVID-19 crisis and its unprecedented consequences worldwide (46). Not only did the pandemic strike the physical health of the elderly more aggressively than that of other age groups, but the devastating impacts of this global crisis on the mental health of older adults pushed this already vulnerable population to the brink of mental breakdown (47). Although some studies have shown that virtual communication could effectively redress the mental and social consequences of the pandemic, other studies have demonstrated that active interaction programs outweighed virtual programs (48). Among the groups most severely impacted are older adults, who face unique social problems due to the pandemic. These challenges are multidimensional and can have significant implications for the well-being of older individuals (37). Addressing these social problems requires a comprehensive and collaborative effort from governments, communities, and individuals. Strategies may include targeted mental health support, initiatives to bridge the digital divide between older adults and younger generations, and community-based programs to combat social isolation. In addition, recognizing the diverse needs of older adults and ensuring inclusivity in public health measures is crucial for promoting the well-being of this vulnerable population during and beyond the COVID-19 pandemic (49).

Conclusion

The review demonstrates that during the COVID-19 pandemic, older adults experienced heightened loneliness, depression, anxiety, sleep disturbances, and suicidal ideation, more so than other age groups, on personal levels. At the same time, they were more affected by social isolation and elder abuse at interpersonal levels, and finally, they faced

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growing discrimination and ageism at social levels. Accordingly, while older adults needed more attention and support from policymakers, they experienced increasing inequalities in fulfilling their survival needs. Furthermore, vulnerable groups of older adult populations, such as dementia cases, sexual minorities, residents of nursing homes, and the elderly with frailty, needed specific consideration.

Authors' Contributions

F.B., R.B., and R.B. collected resources and provided the Prisma flow diagram; M.N. observed the process of collecting information. S.N. reviewed resources. M.N., S.N., and Z.Z. wrote the article and revised it.

Ethical Considerations

The process of collecting information and writing the article has not required contact with patients and their identities or any private information, nor has any intervention been applied.

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Conflict of Interests

The authors declare that they have no competing interests.

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