

COVID-19 impacts and interventions for older adults: implications for future disasters

Denise M. Mitchell, Andrea J. Henry, Richard D. Ager

The School of Social Work, Tulane University, New Orleans, USA

The literature suggests that older adults have developed mental health problems and health challenges since the emergence of the COVID-19 pandemic. Pandemic-related isolation, job loss, lack of social support, the inability to access healthcare services, and financial distress increased stress, loneliness, and depression. However, a few studies have contradicted this hypothesis, reporting that older adults experienced fewer depressive symptoms than their younger cohorts during the COVID-19 pandemic. Nevertheless, older adults who experience depressive symptoms are at risk for detrimental physical, emotional, and social outcomes. Currently, limited research has addressed what types of interventions could prevent the occurrence or severity of COVID-associated depressive symptoms in older adults. This qualitative study aims to identify the impacts of pandemic-associated changes on older adults and realistic interventions that healthcare, community, and faith-based organizations could implement to support and reduce the severity of these impacts. Researchers interviewed participants ($n = 14$) recruited from a senior center in New York. Data were collected and thematically analyzed. Findings suggest opportunities to find connection, tangible assistance, medical resources, compassionate education, and grief support services are interventions that may buffer older adults from pandemic-related distress. Implications for social work practice, advocacy, and further research are discussed.

Received: April 1, 2023
Published: September 22, 2023

Correspondence

Denise M. Mitchell

Tulane University School of Social Work, 127 Elk Place, New Orleans, LA, 70112 USA
E-mail: dmitchell2@tulane.edu

Key words: elderly, depression, COVID-19

How to cite this article: Mitchell DM, Henry AJ, Ager RD. COVID-19 impacts and interventions for older adults: implications for future disasters. *Journal of Gerontology and Geriatrics* 2023;71:260-272. <https://doi.org/10.36150/2499-6564-N622>

INTRODUCTION

DESCRIPTION OF THE PROBLEM

Older adults often face significant health issues and are at higher risk of other mental impairments¹. The COVID-19 pandemic had a significant global impact with greater severity among older adults². Accordingly, the pandemic caused severe challenges to the country, especially the health sector, due to the severity of the disease. The challenges posed to the health sector were mainly due to coronavirus being a new disease, and the health sector lacked information about treatment. The other problems presented by the COVID-19 pandemic included restriction of movement, reduced face-to-face meetings, and financial constraints. The pandemic also reduced hospital visits, thus leading to increased health issues among older adults³. As Das et al.² explained, the increase in health issues was primarily

© Copyright by Società Italiana di Gerontologia e Geriatria (SIGG)



OPEN ACCESS

This is an open access article distributed in accordance with the CC-BY-NC-ND (Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International) license. The article can be used by giving appropriate credit and mentioning the license, but only for non-commercial purposes and only in the original version. For further information: <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>

due to the compromised immunity of older adults, thus making them vulnerable to diseases. Accordingly, health issues decreased the quality of life for this population. One health issue increasing in this population is mental health, such as stress and depression. These issues were exacerbated by the COVID-19 pandemic, making it a significant challenge for this vulnerable group. As a result, many older adults have experienced mental health issues, especially depression. In this paper, we discuss the impact of the COVID-19 pandemic on the mental state of older adults, focusing on depression and the severity of the pandemic's impact.

THE SIGNIFICANCE OF THE PROBLEM

The COVID-19 pandemic had severe impacts on all age groups globally. However, some research suggests older adults experienced more critical implications than other groups, making them more vulnerable to mental health problems, especially depression⁴. According to Lebrasseur et al.⁵, the stress is due to the aging population a greater risk of COVID-19-related deaths than the younger population. Fear of contracting COVID-19 was, therefore, heightened amongst this population. Fear, anxiety, stress, and uncertainty decreased the quality of life of this population. According to Goda et al.⁶, the pandemic has also increased unemployment rates among the older population, leading to financial constraints and subsequent stress. The COVID-19 pandemic adversely impacted the economy of all countries, leading to job losses because of decreased labor demand. The loss of jobs exposed the elderly population to financial distress as some members of this population struggled to sustain their daily lives. The financial constraints have also affected the health of the elderly population because most of them lack the necessary financial support for preexisting chronic diseases, making it challenging and stressful.

Additionally, the pandemic has amplified age discrimination, thus exposing the elderly population to loneliness and emotional distress. Lebrasseur et al.⁵ explained that the pandemic amplified age discrimination by reducing older adults' access to information through restricted movement and interactions. Access to informal caregivers and familial advocates was also reduced, thus amplifying age discrimination and exposing older adults to emotional distress. Therefore, as Richter & Heidinger⁴ stated, the COVID-19 pandemic has created a significant problem because it has increased health issues among older adults. According to Yildirim et al.⁷, one of the health issues that has significantly increased in the elderly population is depression. The present study, therefore, is significant to the health-care sector and other research institutions because it provides a detailed view of the pandemic and how it

affected the elderly, especially regarding depression. The study's results offer information that healthcare and community organizations need to determine the appropriate psychological interventions for older adults. The study will also offer critical information about the pandemic to establish a framework for reducing depression among older adults.

RESEARCH GAP

Although there are numerous research studies on how the COVID-19 pandemic affected human health, there is a need to provide more information on interventions to reduce its effects. Multiple researchers have identified individuals' experiences of the COVID-19 pandemic and infections, chronic illnesses, and deaths⁸. The reason there is limited research, most researchers have returned to patient care. There is currently no proven treatment for COVID-19. To control the growing COVID-19 pandemic, we rely on quarantine, isolation, and infection-control measures to prevent disease spread and on supportive care, including oxygen and mechanical ventilation for infected patients.

However, this present study focuses on the pandemic's impact on mental health because, disease experience is essential to mental health. This research is vital because individuals are likely to develop signs of post-traumatic stress disorder (PTSD) when someone in their social circle contracts, dies, or is hospitalized because of COVID-19⁴. As a result of the significant risk the pandemic poses to the mental health of individuals, especially the elderly, this present study is crucial. Adequate information on necessary interventions for reducing the adverse mental effects of the pandemic on individuals is still lacking undeniably, in-depth research and information on interventions to reduce COVID-19-related stress, anxiety, and the resultant depression among the elderly are needed⁴. Therefore, this study aims to analyze how the COVID-19 pandemic has caused depression in older adults. It also aims to discover the psychological, medical, and social interventions that can reduce the severity of depression in this population.

PURPOSE OF THE STUDY

Although there are numerous research studies on how the COVID-19 pandemic affected human health, there is a need to provide more information on interventions to reduce its effects. Multiple researchers have identified individuals' experiences of the COVID-19 pandemic and infections, chronic illnesses, and deaths⁸. However, this present study focuses on the pandemic's impact on mental health because disease experience is essential to mental health⁴.

This research is also vital because the healthcare and community sectors need adequate and relevant information on the necessary support required to reduce the severity of the pandemic on this vulnerable group. As documented by Lebrasseur et al.⁵, it is essential to implement preventive methods, such as isolation, to prevent infections and death caused by COVID-19. It is essential to recognize that isolation and reduced social contact can trigger psychological stress and depression in the elderly². It is, therefore, essential to develop realistic and non-harmful interventions to address this issue, which can lead to severe impacts on the affected individuals.

As a result, for this present study, we will develop an in-depth analysis of how the COVID-19 pandemic has affected older adults. It will discuss how the severity of depression in this population has increased since the pandemic's emergence because, as Semo & Frissa⁹ discussed, COVID-19 is likely to cause mental health issues in individuals with no preexisting issues and exacerbate the issues among populations with preexisting mental conditions, especially the older population. Through research and analysis of other researchers' work, this research study also creates a framework for the support necessary to reduce these impacts. To achieve these objectives, we will apply the person-in-environment theory, which addresses environmental factors' role in individuals.

IMPLICATIONS OF THE STUDY

The present study focuses on the impact of the COVID-19 pandemic on individuals' mental health issues, particularly depression. The pandemic has become one of the leading causes of mental health issues, and its effects on mental health will persist long after the pandemic ends⁹. Therefore, this present study is critical because the issue of pandemic-related mental health is increasingly concerning. The study is also critical because it looks at how this pandemic has affected older adults during the pandemic and to date. It is essential to focus on the older population because, as Taylor et al.¹⁰ discussed, a large percentage of older adults with various health problems, including chronic illnesses. Therefore, this population should focus on increasing their quality of life and attaining health equity in the United States.

In addition, this study will be helpful to the healthcare sector and community organizations because it will offer an in-depth analysis of the pandemic in the United States and the world through a review of previous research. The study's results will create a detailed and clear picture of the pandemic and the factors that have

caused traumatic experiences among older adults. This study is also critical because it primarily discusses factors that triggered stress, anxiety, and depression among the elderly during the pandemic. The study then aims to identify practical interventions the healthcare sector and community organizations can implement to prevent the exacerbation of depression in this population. Lastly, the study is critical because it will provide a stepping stone for further research on COVID-19-associated depression and interventions to reduce or prevent depressive symptoms among older adults.

LITERATURE REVIEW

The COVID-19 pandemic caused significant adverse global impacts. The pandemic increased fear, worry, and concern in various populations. However, the impact on some populations, such as the elderly, was more severe than others. These impacts included mental health, such as stress and anxiety. The primary concern for this present study is depression, which may derive from anxiety and stress¹¹. The COVID-19 pandemic increased the severity of these health issues, especially for older adults in the United States¹⁰. The introduction of quarantine disrupted activities and livelihoods, leading to increased isolation, loneliness, suicidal behavior, and depression¹². Increased fear was a significant and triggering factor for depression among older adults during the COVID-19 pandemic¹⁰.

THEORETICAL FOUNDATIONS

The COVID-19 pandemic increased concern for individuals' psychological well-being in the United States and globally¹³. Psychological and environmental factors contribute to overall wellbeing. This study will attempt to assess how various interventions may reduce depressive symptoms associated with COVID-19 pandemic impacts. Therefore, a theory that embraces this concept was selected as a theoretical framework to explain how the COVID-19 pandemic impacts older adults and how interventions may reduce associated depressive symptoms.

PERSON-IN-ENVIRONMENT THEORY

The person-in-environment (PIE) theory was introduced by Mary Richmond in 1917 to reform social work practice. PIE theory suggests individuals are molded by their environment and primarily influenced by environmental factors¹⁴. Richmond's publication, *Social Diagnosis*, argued that social workers and other behavioral health professionals should use this theory to better recognize

the impact of an individual's environment on their decisions and behaviors when completing behavioral health assessments^{13,15}. Richmond argued that an individual's educational, occupational, socioeconomic, and social environment is often intertwined with concerns or dilemmas they are experiencing^{13,14}. Richmond advocated for using PIE theory in practice to allow clinicians to understand a person better, identify the root cause of their problems, and develop appropriate solutions^{13,16}. PIE theory has many benefits for social work practice. It is pragmatic for clinical and community practice, allows a practitioner to evaluate a client using a holistic approach,

Recognize a client's strengths and address micro- and macro-level barriers^{13,14}. There are also some limitations to the theory. Although it acknowledges that individuals are influenced by their environments, practitioners should use this framework in practice¹⁵. However, some critics claim this approach needs to provide a guide for using this framework. Some also consider it outdated, while others believe the theory places too much emphasis on the environment shaping an individual's behavior, which prevents them from taking responsibility for their behaviors^{13,16}.

PIE theory is an ideal framework to explore how the COVID-19 pandemic impacted older adults which can be used to identify interventions to reduce depressive symptoms in this population during disasters. The theory acknowledges how pandemic-related environmental changes, such as social isolation, limited access to resources, and restricted activity, can influence the overall wellness of these individuals and create new-found and exacerbated stress which may lead to depressive symptoms. In contrast, the presence of interventions which provide tangible assistance, emotional support, and social opportunities may help decrease environmental stressors and help older adults better cope with pandemic-related changes. This study will aim to identify interventions which could be introduced by community and healthcare organizations to fulfil this role in the event of future disasters.

LITERATURE ANALYSIS

The COVID-19 pandemic caused significant health issues, including mental health problems. Although the pandemic affected the entire global population, some impacts were more severe for older adults. The issue of mental health among older adults was particularly prominent during this period due to vulnerabilities associated with this group, such as the high disease rate. Multiple researchers have examined how the pandemic caused mental challenges in older adults. This section

will develop a detailed literature analysis on this topic and highlight its relation to the study.

The elderly population was more vulnerable than many other population groups to emotional impacts from the pandemic^{10,17}. Silva et al.¹⁷ stated that the COVID-19 pandemic increased the global prevalence of depression. Oh et al.¹⁸ added that the COVID-19 pandemic influenced the prevalence of late-life depression, and older adults without familial care were especially vulnerable. Taylor et al.¹⁰ also studied how older adults experienced mental challenges during the COVID-19 pandemic. Their study showed that mental stress became severe among older adults who lacked social support from their loved ones. The lack of social support was caused mainly by the quarantine and isolation older adults endured to protect themselves from infections¹⁰. The authors added that the pandemic led to increased job loss, income reduction, and, in severe cases, loss of income, making it challenging for older adults to manage their health. Of 126 participants, 68% had developed stress from the COVID-19 pandemic putting them at greater risk of depression¹⁰. Another study by Gaggero et al.¹⁹ confirmed that the pandemic caused depression levels in the elderly population to increase significantly. The study, however, indicated that the increase in the levels of depression in this population was not as much a result of the income decline caused by the pandemic but of other factors, such as lack of activeness, lack of physical activity, and consumption of COVID-19-related information leads to stress, anxiety, and subsequent depression¹⁹.

However, a study by Silva et al.¹⁷ suggested that a stable high monthly income, among other factors, increased the protective factors against depression in the elderly population. Several factors influence the occurrence of COVID-19-related depression. A study by Silva et al.¹⁷ indicated that apart from age, other factors influenced the occurrence of depression in the elderly population during the pandemic including: loneliness, poor motor function, lack of sleep quality, and being female. This finding suggests that during the pandemic, factors other than age contributed to the prevalence of depression among older adults, thus making them more vulnerable than others. Bui et al.²⁰ added that financial stress is another factor that influences the development of depressive symptoms. In their study, Bui et al.²⁰ argued that the COVID-19 pandemic led to increased job loss among older adults, who faced challenges finding new jobs due to age limits and age discrimination. The financial stress they experience predisposes them to depression. Vahia et al.²¹ also added that unemployment increases the risk of depression in this population because it leads to financial constraints. This risk is elevated because it can become difficult for children to support their elderly parents financially.

The pandemic adversely affected older adults. A study by Luo ²² to determine how the pandemic affected American adults compared to younger adults concluded that depression was higher among middle-aged and elderly individuals than young people. Luo ²² added that this prevalence resulted from the stress, loneliness, and isolation caused by lockdown measures implemented during the pandemic. Krendl & Perry ²³ reinforced this idea by explaining that isolation affects the metacognitive and social aspects of the elderly more than other populations, thus making depression more prevalent in this population compared to others.

Lara et al. ²⁴ also added that the prevalence of depression in this population is due to the lack of social engagement and support for older adults due to COVID-19 pandemic restrictions. Gaggero et al. ¹⁹ further explained that older adults require social engagement more than anything else, so it becomes easy for them to develop depressive symptoms when engagement is lacking. Abrams et al. ²⁵ also explained that the adverse effect of the pandemic on the elderly population resulted from the sudden loss of jobs as demand for labor significantly decreased. The sudden change from work shifts and schedules to working or staying at home also amplified loneliness and lack of physical activity leading to depression.

The pandemic affected many areas of life, thus exposing older adults to depression. De Pue et al. ²⁶ reinforced the idea that older adults were vulnerable and exposed to depression because of the changes imposed by the pandemic. An example of this change is the restriction of family gatherings and denying older adults the opportunity to look after their grandchildren. Raina et al. ²⁷ explained that these changes caused psychological distress among this population, which led to depression. Yadav et al. ²⁸ also argued that older adults live with a higher risk of fear due to the severity of the pandemic and its impacts on their daily and healthy lives, making them vulnerable to depression. Despite all older adults being affected by the pandemic, certain groups were more affected than others, as indicated by a study conducted by Gaggero et al. ¹⁹, who applied the Center for Epidemiologic Studies Depression (CES-D) index. The results showed that older women, older adults who had lost their jobs, and those forced to retire early were more affected than other older adults.

Other research studies have found that the COVID-19 pandemic adversely affected the mental health of older adults. Silva et al. ¹⁷ supported the idea that the COVID-19 pandemic had caused a significant increase in the prevalence of depression globally. Kurniawidjaja et al. ²⁹ also concluded that the COVID-19 pandemic exacerbated factors such as financial constraints, dependency, family and social support, fitness and health,

and sources of funds, thus leading to increased rates of depression in the older population. These studies confirmed that the COVID-19 pandemic had adversely impacted the mental health of older individuals, thus making them vulnerable to depression ¹. Strategies among this population have helped them mitigate the mental impact of the COVID-19 pandemic.

When addressing the impacts of the COVID-19 pandemic on older adults, some tend to ignore the contributing factors and focus more on the implications and interventions. Webb & Chen ³⁰ studied the impact of the pandemic on older adults' mental health but focused on contributing factors, coping strategies, and improvement opportunities. The study acknowledged the adverse impact of the pandemic on the youth compared to older adults based on the contributing factors. The authors noted that most mental health problems among the elderly are often associated with aging and may not be documented.

Generally, older adults have better biological stress responses, social statuses, universal personality traits, and financial stability, which explains their lower rate of depression despite their adverse consequences ³¹. Older adults are more likely to develop functional impairment, have lower recovery rates from other conditions, have longer medical hospitalizations, have disproportionate hospital admission numbers, and experience death ³⁰. However, most older adults have wisdom that allows them to combat loneliness by enhancing their compassion, spirituality, and acceptance of uncertainty. Das et al. ² confirmed that the COVID-19 pandemic caused an increase in anxiety and depression among older adults. Their study also indicated that older adults with chronic illnesses were at risk of developing COVID-19-related depression. It acknowledged the mental impact of the COVID-19 pandemic on all generations and then focused on the adverse impact on older adults, who, for example, experience higher mortality and morbidity rates. In a cross-sectional study, the researchers examined the functional ability of elderly individuals during the pandemic ². Despite the lower levels of depression and anxiety due to their higher resilience and proper family support, they were at higher risk of developing mental health conditions due to preexisting conditions such as diabetes and hypertension. The findings can help organizations understand risk factors contributing to mental health challenges during the pandemic and their impact on mental health outcomes ^{3,2}. However, they also call for further studies to better understand the lower levels of depression and anxiety among older adults.

Similarly, it is crucial to assess the role of community organizations in the mental health outcomes of the elderly during the COVID-19 pandemic since the elderly

population is known to form organizations to support each other. Li et al.³³ assessed the interactive relationships between social support and resilience in mental health during the pandemic by comparing young adults, middle-aged and elderly adults. Their study provided questionnaires to determine any difference, and the first finding was the difference in prevalence rates, with older adults having the lowest. Secondly, the study indicated that despite their lower prevalence rate, older adults had a higher risk of death if they were impacted by mental conditions, highlighting the paradox of aging. The role of community organizations was evident as they provided higher levels of family and social support to avoid negative emotions³³. Older adults were also more likely to spend more time with emotionally close relationships, which acted as a coping mechanism. These findings are consistent with other studies highlighting how the older population had better-coping mechanisms, which can explain how the older population had lower rates of mental health problems during the pandemic^{31,33}.

RESEARCH QUESTIONS AND HYPOTHESES

QUESTION

What interventions can healthcare and community organizations introduce to reduce symptoms of depression among older adults?

HYPOTHESES

H01: healthcare and community organizations could develop interventions to provide emotional support, education, and assistance to reduce depressive symptoms among older adults.

METHODOLOGY

SAMPLE

Data were collected from 14 members of a New York City senior center. Participants interested in joining the study contacted a researcher using the contact information on flyers posted throughout the community center. All individuals who expressed interest in participating completed a written inclusion criteria screener. All participants reported they were at least 60 years old, English-speaking, not currently employed, retired, and/or disabled, and denied any cognitive impairment or symptoms of psychosis. The study was announced by staff and a researcher during activity groups at the senior center. The researchers were doctoral students

and faculty advisors with experience providing social work services to older adults in medical and behavioral health settings.

MEASURES

The current study is qualitative, consisting of 10 questions (see Table I). It is designed to explore how the COVID-19 pandemic affected study participants, their coping strategies, and their suggestions for healthcare and community interventions. The initial questions developed for the study were derived from previous studies that assessed the relationship between the COVID-19 pandemic and social-emotional outcomes among older adults²³. Additional questions were added to identify the resources and community interventions used by study participants, what interventions they desired, and what interventions they felt could help older adults better cope with the COVID-19 pandemic. All three researchers developed and approved the semi-structured interview to ensure the questions would address the research objectives. The interview questions were piloted with a small group of older adults at a similar program to ensure the questions were easily understood and the related data appropriately addressed the research questions. Those piloting the interview instrument made suggestions about the wording of questions to improve clarity.

PROCEDURES

Individuals who agreed to participate in the research study were screened by the principal investigator at the senior center to ensure they met the inclusion criteria. All 14 individuals who expressed interest fully met the established criteria. The study participants were re-educated about the study, had the opportunity to ask questions, and completed informed consent forms before scheduling an appointment for the interview. Patients were also provided with a list of local mental health resources in the event participation would lead to emotional distress.

With the participants' permission, interviews were conducted using Zoom so both researchers could attend the session. Participants completed a demographic information form before conducting a semi-structured interview with the researchers. The researcher who attended the sessions in person asked questions, focused on the comments, and took notes to assist with the transcription of the interviews. The researcher attending via Zoom observed the participants' nonverbal behaviors and took notes on these actions. The interview was recorded and later transcribed.

ANALYSIS

The researchers selected a phenomenological approach

Table I. Interview questions.

Variables	Interview questions
Changes to daily life	How did the emergence of COVID-19 impact your daily life?
Physical health	How has COVID-19 impacted your physical health?
Emotional health	How has COVID-19 impacted your emotional health?
Positive COVID outcomes	What were some of “the positives” to come out of COVID-19?
	How did this benefit/help you?
Coping strategies	How have you tried to cope with the changes associated with COVID-19?
	What was successful?
	What was not successful?
Recreational restrictions	What hobbies and activities of interest were you forced to stop during COVID-19?
	What did you do?
Coping strategies	How did your health care providers and community organizations (senior centers, spiritual communities, etc.) try to help you cope with COVID?
	What helped?
	What did not help?
Desired coping strategies	What do you wish your health care providers and community organizations would have done to help you better cope with COVID-19?
Desired coping strategies	What interventions do you feel would help others cope better with changes associated with COVID-19?
Advice	For yourself?
	What would you suggest to others in similar situations?

to better understand the participants' collective experience, as outlined by Creswell and Poth³⁴. Data was acquired through individual interviews. All study participants who engaged in the interviews encountered changes in their daily lives due to the emergence of the COVID-19 pandemic and experienced some degree of distress from these events. The researchers attempted to establish a positive rapport with the study participants but remained neutral to avoid making any assumptions. Data collected from the demographic information forms were entered into an Excel spreadsheet. Statistical analysis (i.e., descriptive statistics) was conducted using Jamovi version 2.2.5 software. The researchers recorded, transcribed, cleaned, and analyzed each interview. Each doctoral researcher highlighted significant statements within the transcript to provide an overall understanding of the participants' collective experiences during the pandemic. They individually coded the transcripts, and later met to discuss the results and resolve any discrepancies. The researchers used triangulation to increase trustworthiness of the study and had an inter-rater reliability of 91%. The faculty advisor was available to consult if the student researchers could not conclude. The selected themes provided a foundation for textural and structural descriptions, which describe environmental factors associated with the participants' individual and collective experiences³⁴. Composite descriptions addressed the research questions: What

interventions can healthcare and community organizations introduce to reduce symptoms of depression among older adults? The Tulane University Institutional Review Board approved the human subjects protection protocol.

RESULTS

SAMPLE DEMOGRAPHICS

Fourteen senior center members in New York City engaged in this qualitative study in October 2022, nearly three years after the pandemic began. Participants ranged from 66 to 83 years old, with a mean age of 75. Most of the sample was female ($n = 12$, 85.7%). Nearly 36% of participants ($n = 5$) were single, 28.6% ($n = 4$) were widowed, 21.4% ($n = 3$) were divorced, 7.1% ($n = 1$) were separated, and 7.1% ($n = 1$) were married or in a domestic partnership. Most of those interviewed (78.6%, $n = 11$) lived alone during the interview and throughout the pandemic. All participants considered themselves religious or spiritual. The majority of participants (85.7%, $n = 11$) identified as Catholic, 7.1% ($n = 1$) identified as Jewish, and 7.1% ($n = 1$) identified as Protestant. Most participants had a primary care doctor ($n = 12$, 85.7%). One study participant (7.1%) reported a past diagnosis of depression, and two study

participants (14.3%) reported being previously diagnosed or being treated by a provider for anxiety.

FINDINGS

The researchers identified five themes from the individual interviews: a) Opportunities to Find Connection; b) Tangible Assistance; c) Medical Resources; d) Compassionate Education; and e) Grief Support Services (see Table II). These themes reflect the types of interventions that could be introduced by healthcare and community organizations to reduce depressive symptoms among older adults during the COVID-19 pandemic. Themes reflected significant statements from the interviews that addressed the greatest challenges these individuals encountered, interventions they received and found helpful, and interventions they desired.

Theme #1: opportunities to find connection

Participants indicated that social isolation was the most difficult challenge associated with the pandemic. Most participants indicated that coping with the newfound isolation was more difficult than worrying about their mortality. Prior to the emergence of COVID-19, these individuals were very active in their community. They worked, volunteered, and cherished spending time with friends and family. Participants shared that being unable to spend time with loved ones negatively impacted their overall wellness and quality of life. "I have grandchildren. I did not want to them to get sick. I did not go over to see them for a good, good while. It impacted me because I wasn't able to spend time with them to give them my love and receive their love". A participant wished someone had taught her to use technology like FaceTime and Zoom to see her family instead of just telephone calls.

Besides feeling alone and having more time to worry, many individuals associated their loss of social interaction with the loss of identity and purpose. Some were unable to care for family members, and others could no longer engage in social activities they enjoyed. Many had previously considered them caregivers for friends and family and were now limited in this venture: "I was separated from my extended family during COVID. We lost some members, and I was unable to care for them. It affected me".

Others were prematurely forced to retire. One client shared that the worst part was not knowing when these restrictions would end and if life would ever return to normal as they knew it. Participants desired interventions that could provide connection from a distance, including learning how to use technology and social media, virtual support and activity groups, and the creation of volunteer opportunities that could be completed from home.

Theme #2: tangible assistance

The second theme, tangible assistance, was the provision of material goods and financial aid available for older adults during the pandemic. Some participants had assistance accessing food, toiletries, and other necessary items from family members or neighbors. Other participants desired additional accessing other necessities, including medications and pet supplies. Many of those interviewed received various forms of tangible assistance through the senior center they attended. Despite the senior center being forced to close to members, the staff continued to assist clients access, food, utilities, and the COVID vaccine from a distance. "The senior center was the best. They organized food to be delivered to the homes. It was one of the hottest summers, and they helped with air conditioners. They organized where and when we could get out COVID vaccine. They called us". Accessing needed transportation was an ongoing challenge for participants, especially those with preexisting conditions. Many of these individuals were diagnosed with other medical conditions that increased their risks if they contracted COVID-19 would have benefited from additional transportation assistance to meet their needs.

Theme #3: medical resources

The third theme, medical resources, refers to the availability and accessibility of medical care and supplies. Most of those interviewed are established with a primary care provider, yet most had minimal contact with their physicians during this time. Many of the participants were diagnosed with COVID-19 at least once. However, they were hesitant to make an appointment due to limited resources, their providers being overwhelmed with the current need, facilities being closed, or they were unsure how to use telehealth. Others reported they attempted to avoid all public places, especially medical facilities and pharmacies because they feared contracting the illness. Participants were uncertain how the facilities strived to prevent this occurrence. Participants shared how the pandemic impacted their physical and emotional health noted, they started to experience new pains from remaining sedentary, and preexisting mental and physical conditions worsened. "I'm basically a positive person, but the way it impacted my life: my underlying issues which I had basically at a standstill and I was dealing with them, It made them ten times worse". The participants advocated for additional services, especially those with limited mobility, cognitive impairment, and respiratory diagnoses.

Theme #4: compassionate education

"It would help if there was a lot more education. When this started with everything on tv, you don't know what

Table II. Thematic overview.

Theme	Associated quotations
Theme #1: opportunities to find connection	"They (great grandchildren) liked to see me and I took care of them when their parents had to go to work. We would go out and do activities to stay occupied. The activities, I missed that"
	"I could not do things I wanted to, I had to be home"
	"I have grandchildren. I did not want to them to get sick. I did not go over to see them for a good, good while. It impacted me because I wasn't able to spend time with them to give them my love and receive their love"
	"I was separated from my extended family during COVID. We lost some members, and I was unable to care for them. It affected me"
	"I actually stopped working. I had to retire. I had my business. This was the only thing that really upset me"
Theme #2: tangible assistance	"My family said, 'You're not going to the supermarket or anywhere when you need paper goods, meals. I'm ordering from five places. You drive up every Sunday, and we'll put it in your trunk. Don't go to the store'"
	"The senior center was the best. They organized food to be delivered to the homes. It was one of the hottest summers, and they helped with air conditioners. They organized where and when we could get out COVID vaccine. They called us"
	"You know how people were looking online and trying to find places (to get the COVID vaccine)? They did it for us and scheduled it. They would call and say this day is available"
Theme #3: medical resources	"Actually, I didn't see a primary care provider during that time because all the clinics were basically closed, but I have a medical alert and was given a number to call if I was concerned, I was really having any medical issues"
	"I think there need to be more home services for those with mobility issues, more services. Once people are in their sixties, they often have osteoporosis and arthritis. That hurts, knee problems, problems with the legs. They need more services for the elderly who are homebound and also more wellness checks. They may also forget stuff"
	"I'm basically a positive person, but the way it impacted my life: my underlying issues which I had basically at a standstill and I was dealing with them, It made them ten times worse"
	"I think they need to start having more stringent guidelines. I noticed some of the clinics were not practicing social distancing"
Theme #4: compassionate education	"They (community and healthcare organizations) did not do anything but tell us to get the shot"
	"It would help if there was a lot more education. When this started with everything on tv, you don't know what to believe or how to deal with it. What should you expect especially for older adults who already have illness?"
	"A lot of help and information came from the senior center. We have a nurse at the center who also does a program each Friday and provides education"
Theme #5: grief support services	"A lot of people don't understand that grief and mourning are a very individual thing"
	"I lost my niece and could not go to her funeral"
	"Death. Train people how to deal with death"

to believe or how to deal with it. What should you expect especially for older adults who already have illness?". The study participants had very diverse options regarding the benefits of COVID vaccinations and government response. However, a common desire was for education that adequately addressed their questions while responding with compassion and empathy for their fears and anxiety. Participants indicated they wished for additional information and the ability to ask questions and share their worries. Some participants indicated they felt organizational leaders did not respect their decisions. Some mentioned they felt nearly forced to do something by healthcare facilities, local organizations, and government officials. However, no one took the time to explain or listen to their concerns. Participants reported that most of their education was from the senior center. Despite being closed, phones were actively checked, and assistance was provided.

Participants indicate that the education and emotional support provided by the senior center has been ongoing, and the topics discussed were tailored to this population.

Theme #5: grief support services

"Death. Train people how to deal with death".
"A lot of people don't understand that grief and mourning are a very individual thing".

The most commonly mentioned intervention desired were supportive interventions to help individuals cope with grief and loss. All of these individuals resided in the epicenter of the pandemic. Most interviewees were diagnosed with COVID-19 and felt fortunate to survive the ideal, despite some long-term consequences. Some lost parents, spouses, friends, and extended

families. Recommendations and mandates addressing social distancing and remaining at home prevented individuals from mourning the loss as they had in the past. They also did not know how long these restrictions would remain in place, and they would not be able to give and receive comfort in the presence of loved ones to process the loss or hold a service.

The environment and prevalence of death and grief provoked memories of past loss.

Some participants focused on caring for a pet or found new hobbies to help them cope and keep their minds active. However, others shared how time spent at home alone, sometimes bored, resulted in increased ruminations of their loss, frustrations, and fears, leading to increased feelings of depression.

DISCUSSION

DESCRIPTION OF STUDY RESULTS

The study's findings significantly center on the vulnerability of older adults to experience stress and depression during the COVID-19 pandemic. In summary, the study sought to identify practical interventions that can be used to respond to the needs of this population. The vulnerability of this population primarily resulted from the limited social interactions that resulted from the pandemic. As Gaggero et al.¹⁹ explained that social interactions are more important in later life than other factors. The measures of social distancing, which led to isolation, limited face-to-face interactions, and limited social gatherings, made the older population significantly vulnerable to depression. Other factors, such as financial constraints due to job loss, fear of infection, loss of a loved one, and lack of physical activity, were also observed to trigger distress and depression in the participants.

The vulnerability of older adults to mental health issues during the pandemic makes it imperative to give the population adequate support. To fulfill the study's objective of developing a framework that can be applied to reduce the severity of depressive symptoms in the elderly, researchers used the study's findings to identify several ways of supporting the elderly. They identified five key themes from participant interviews and analysis of past articles. These themes included: Opportunities to Find Connections, Tangible Assistance, Medical Resources, Compassionate Education, and Grief Support Services. These themes highlight the challenges older adults face during the pandemic and the interventions they need. The study's theoretical framework, regarding the cognitive and psychodynamic theories, suggests that the negative factors associated with the pandemic

can alter individuals' attitudes and perceptions of the world, leading to distress and a bleak outlook on life. Therefore, community and healthcare organizations can organize support groups based on these themes. These support groups will ensure that older adults receive the emotional support required to reduce the severity of depression and prevent the development of more depressive symptoms.

RESULTS CONCERNING LITERATURE GAPS

In addressing literature gaps, the study provided qualitative insight into older adults' challenges during the pandemic. The study found that the participants' lack of social interactions was particularly challenging for this population. It is an important finding as older adults who lack social interactions experience a sense of isolation and loneliness, which can contribute to depression¹⁰. The literature on the mental health of older adults during the COVID-19 pandemic is still developing, thus making this study essential. Several studies have highlighted the negative impact of social isolation, fear of infection, and loss of access to healthcare on the mental well-being of this population²³. Still, there is a need to channel significant research efforts to social isolation and how it links to depression and other mental illnesses during the COVID-19 pandemic. This research has made an effort to address this literature gap.

Additionally, the study has reinforced other studies whose findings indicated that the fear of contracting COVID-19 and the loss of access to healthcare have contributed to an increase in stress, anxiety, and depression among older adults³⁵. The study also supported studies that show that a decrease in physical activity and an increase in sedentary lifestyles are currently major risk factors for depression among older adults. Research on interventions that can be implemented to reduce the severity of COVID-19-related depression among older adults is still limited. This study has, therefore, addressed this literature gap by providing a framework that can be applied to reduce the severity of these depressive symptoms in this population.

IMPLICATIONS OF THE RESEARCH

Regarding social work practice, the research result highlights the need for social workers to be aware of the increased vulnerability of older adults to depression during the pandemic. It, therefore, can inform social workers to develop interventions to address this vulnerability. These interventions include providing opportunities for connection and purpose, tangible assistance, medical resources, compassionate education, and grief support services. It can also inform social workers to prioritize the mental health of older adults during the pandemic and ensure they have access to appropriate mental

health services. The study has also demonstrated an increased need for mental health support and services for older adults. There is also a need for education and training for social workers to gain a better understanding to enable them to address the unique challenges that older adults may face during the pandemic. The research also highlighted the importance of using technology and telehealth services to provide support and services remotely and the need for increased collaboration between social workers and other healthcare providers to ensure that older adults receive the care and support they need. It is also crucial for social workers to address the social determinants of health, which can exacerbate the adverse effects of the pandemic on older adults' mental health.

The implications of the study are also subject to the field of education. There is a need for social work education to address the specific challenges faced by older adults during the pandemic. The essence is to develop a framework for older adults during the pandemic and how to provide appropriate interventions and support. Regarding policy, the research results highlight the need for policies specifically sensitive to the needs of the elderly. Caregivers have supported older adults during the pandemic²¹. However, the country does not have adequate systems to support caregivers. This is one of the areas that will be addressed if the policies are implemented. Ultimately, implementing these policies will provide a clear path to handling older people during disasters and pandemics in the future. It is also an effective way of strengthening the role and collaboration of policymakers in handling sensitive situations.

LIMITATIONS OF STUDY

The study faced a series of challenges that, if addressed in future research, will increase the reliability and validity of similar research. One of these challenges was data availability or simply the sample size. Data on the mental health of older adults during the pandemic was limited, and the sample population was difficult to find. It was, therefore, difficult to accurately assess the full extent of the impact of the pandemic on older adults' mental health. In the future, a larger sample size can be used. Other data collection methods besides interviews can also be used in future research. Using interviews alone and measuring the response presents the possibility of inaccurate data. In some cases, participants may provide feedback to conform to the needs of the research. Additionally, the study's sample did not represent the older adult population. This could limit the generalizability of the findings. The measures used to assess mental health may also not be appropriate for older adults because they may need to fully capture the complex and nuanced impact of the pandemic on older adults'

mental health. Finally, the study did not consider socioeconomic factors, such as poverty and age discrimination, which can further exacerbate the adverse effects of the pandemic on older adults' mental health. These are some areas that future research should focus on when completing studies on this topic. The study was, however, a crucial contribution to the current studies on the pandemic and the mental health of the elderly.

CONCLUSIONS

The study investigated the impact of the pandemic on the mental health of individuals aged at least 60 years. The study's findings indicated that the rate of depression in the elderly population has considerably increased since the pandemic. This increase in depression can mostly be linked to the lack of social interactions caused by the pandemic. The older population has experienced more loneliness, isolation, discrimination, and stress since the pandemic, making them vulnerable to depression. The study's findings also indicated that certain groups in the older population are more vulnerable to depression than others. These groups are mostly men, those with no stable monthly income, those who are isolated, and those who have experienced the loss of a loved one due to COVID-19.

The study's findings concluded that community and healthcare organizations could develop interventions that touch on specific vital themes to help reduce the severity of depression in the older population. These themes include: Finding Connection and Purpose, Tangible Assistance, Medical Resources, Compassionate Education, and Grief Support Services. More research should be done to find more information on the relationship between social interactions and depression in the elderly population. Social workers who deal with the elderly population should also be trained on the effective interventions that can alleviate depressive symptoms caused by the pandemic on the older population. All healthcare and community organizations should also develop and implement a clear framework that touches on Finding Connection and Purpose, Tangible Assistance, Medical Resources, Compassionate Education, and Grief Support Services. The elderly population should also be given more support to reduce the severity of depression, thus improving the quality of their lives.

Acknowledgments

The authors would like to thank all of the participants in the study. Special thanks to the administrators of the center.

Conflict of interest statement

The authors declare no conflict of interest.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Author contributions

All authors contribute equally to the work.

Ethical consideration

The research was conducted accordingly with the requirement of Tulane University IRB.

The research was conducted ethically, with all study procedures being performed in accordance with the requirements of the World Medical Association's Declaration of Helsinki.

Written informed consent was obtained from each participant/patient for study participation and data publication.

References

- Jaul E, Barron J. Age-related diseases and clinical and public health implications for the 85 years old and over-population. *Front Public Health* 2017;5:335. <https://www.frontiersin.org/articles/10.3389/fpubh.2017.00335/full>
- Das S, Arun P, Rohilla R, et al. Anxiety and depression in the elderly due to COVID-19 pandemic: a pilot study. *Middle East Curr Psych* 2021;28:67. <https://doi.org/10.1186/s43045-021-00145-1>
- Ahmed SAS, Ajisola M, Azeem K, et al. Impact of the societal response to COVID-19 on access to healthcare for non-COVID-19 health issues in slum communities of Bangladesh, Kenya, Nigeria, and Pakistan: results of pre-COVID and COVID-19 lockdown stakeholder engagements. *BMJ global health* 2020;5:E003042. <https://gh.bmj.com/content/bmjgh/5/8/e003042.full.pdf>
- Richter L, Heidinger T. Hitting close to home: the effect of COVID-19 illness in the social environment on psychological burden in older adults. *Front Psychol* 2021;12:737787. <https://doi.org/10.3389/fpsyg.2021.737787>
- Lebrasseur A, Fortin-Bédard N, Lettre J, et al. Impact of the COVID-19 pandemic on older adults: Rapid review. *JMIR Aging* 2021;4:E26474. <https://doi.org/10.2196/26474>
- Goda GS, Jackson E, Nicholas LH, et al. The impact of COVID-19 on older workers' employment and Social Security spillovers. *J Population Economics* 2021;1-34. <https://doi.org/10.3386/w29083>
- Yildirim H, Işık K, Aylaz R. The effect of anxiety levels of elderly people in quarantine on depression during the COVID-19 pandemic. *Social Work Public Health* 2021;36:194-204. <https://doi.org/10.1080/19371918.2020.1868372>
- Hacker KA, Briss PA, Richardson L, et al. Peer reviewed: COVID-19 and chronic disease: the impact now and in the future. *Prev Chronic Dis* 2021;18:E62. <https://doi.org/10.5888/pcd18.210086>
- Semo B, Frissa SM. The mental health impact of the COVID-19 pandemic: Implications for sub-Saharan Africa. *Psychol Res Behav Manag* 2020;13:713-720. <https://www.dovepress.com/getfile.php?fileID=61235>
- Taylor S, Landry CA, Paluszek MM, et al. COVID stress syndrome: concept, structure, and correlates. *Depress Anxiety* 2020;37:706-714. <https://doi.org/10.1002/da.23071>
- World Health Organization. (n.d.). Mental health and COVID-19 (<https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/mental-health-and-covid-19>).
- Ganesan B, Al-Jumaily A, Fong KN, et al. Impact of coronavirus disease 2019 (COVID-19) outbreak quarantine, isolation, and lockdown policies on mental health and suicide. *Front Psych* 2021;12:565190. <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.565190/full>
- González MJ, Gelman RC. A Centennial of Mary Richmond's Social Diagnosis: a celebration and contemporary assessment of a seminal work. *Families in Society* 2019;100:233-247. <https://doi.org/10.1177/1044389419866579>
- Richmond ME. *Social diagnosis*. Russell Sage Foundation 1917.
- Akesson B, Burns V, Hordyk S. The place of place in social work: rethinking the person-in-environment model in social work education and practice. *J Soc Work Educ* 2017;53:372-383. <https://doi.org/10.1080/10437797.2016.1272512>
- Dybicz P. From person-in-environment to strengths: the promise of postmodern practice. *Journal of Social Work Education* 2015;51:237-249.
- Silva C, Fonseca C, Ferreira R, et al. Depression in older adults during the COVID-19 pandemic: a systematic review protocol. *BMJ Open* 2022;12:E065610.10.1136/bmjopen-2022-065610
- Oh DJ, Yang HW, Suh SW, et al. The impact of the COVID-19 pandemic on depression in community-dwelling older adults: a prospective cohort study. *Psychol Med* 2021;E1-8. <https://doi.org/10.1017/s0033291721005018>
- Gaggero A, Fernández-Pérez Á, Jiménez-Rubio D. Effect of the COVID-19 pandemic on depression in older adults: a panel data analysis. *Health Pol* 2022;126:865-871. <https://doi.org/10.1016/j.healthpol.2022.07.001>
- Bui TTM, Button P, Picciotti EG. Early evidence on the impact of coronavirus disease 2019 (COVID-19) and the recession on older workers. *Public Pol Aging Rep* 2020;30:154-159.
- Vahia IV, Jeste DV, Reynolds CF. Older adults and the mental health effects of COVID-19. *JAMA* 2020;324:2253. <https://doi.org/10.1001/jama.2020.21753>

- 22 Luo Y. The association of delayed care with depression among U.S. middle-aged and older adults during the COVID-19 pandemic: cross-sectional analysis. *JMIR Aging* 2021;4:E29953. <https://doi.org/10.2196/29953>
- 23 Krendl AC, Perry BL. The impact of sheltering during the COVID-19 pandemic on older adults' social and mental well-being. *J Gerontol* 2021;76:E53-E58. <https://doi.org/10.1093/geronb/gbaa110>
- 24 Lara E, Martín-María N, Miret M, et al. Is there a combined effect of depression and cognitive reserve on cognitive function? Findings from a population-based study. *Psychol Health* 2021;37:1132-1147. <https://doi.org/10.1080/08870446.2021.1927030>
- 25 Abrams LR, Finlay JM, Kobayashi LC. Job transitions and mental health outcomes among U.S. adults aged 55 and older during the COVID-19 pandemic. *J Gerontol* 2021;77:E106-E116. <https://doi.org/10.1093/geronb/gbab060>
- 26 De Pue S, Gillebert C, Dierckx E, et al. The impact of the COVID-19 pandemic on the well-being and cognitive functioning of older adults. *Scientific Rep* 2021;11:4636. <https://doi.org/10.1038/s41598-021-84127-7>
- 27 Raina P, Wolfson C, Griffith L, et al. A longitudinal analysis of the impact of the COVID-19 pandemic on the mental health of middle-aged and older adults from the Canadian Longitudinal Study on Aging. *Nature Aging* 2021;1:1137-1147. <https://doi.org/10.1038/s43587-021-00128-1>
- 28 Yadav UN, Yadav OP, Singh DR, et al. Perceived fear of COVID-19 and its associated factors among Nepalese older adults in Eastern Nepal: a cross-sectional study. *PLoS One* 2021;16:E0254825. <https://doi.org/10.1371/journal.pone.0254825>
- 29 Kurniawidjaja M, Susilowati IH, Erwandi D, et al. Identification of depression among elderly during COVID-19. *J Primary Care Comm Health* 2022;13,215013192210853. <https://doi.org/10.1177/21501319221085380>
- 30 Webb LM, Chen CY. The COVID-19 pandemic's impact on older adults' mental health: contributing factors, coping strategies, and opportunities for improvement. *International J Geriatric Psych* 2021;37. <https://doi.org/10.1002/gps.5647>
- 31 Zapater-Fajari M, Crespo-Sanmiguel I, Pulpulos MM, et al. Resilience and psychobiological response to stress in older people: the mediating role of coping strategies. *Front Aging Neurosci* 2021;13:632141. <https://www.frontiersin.org/articles/10.3389/fnagi.2021.632141/full>
- 32 Miller KD. What is mental health theories? (incl. List) . *Positive Psychology.com*. 2021;Dec 8 (<https://positivepsychology.com/mental-health-theories>)
- 33 Li F, Luo S, Mu W, et al. Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC Psychiatry* 2021;21. <https://doi.org/10.1186/s12888-020-03012-1>
- 34 Creswell JW, Poth CN. *Qualitative inquiry & research design: choosing among five approaches*. Los Angeles, CA: SAGE 2018
- 35 Amicucci G, Salfi F, D'Atri A, et al. The differential impact of COVID-19 lockdown on sleep quality, insomnia, depression, stress, and anxiety among late adolescents and elderly in Italy. *Brain Sci* 2021;11:1336. <https://doi.org/10.3390/brainsci11101336>