

COVID for One: Identifying Obstacles to Self-Management of COVID-19 for Single Adults

Journal of Patient Experience
Volume 11: 1-8
© The Author(s) 2024
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/23743735241302742
journals.sagepub.com/home/jpx



Linda Treiber, PhD, MSN¹ , Christie Emerson, DNS, RN² ,
and Jenna Shackelford, PhD, RN, CPN² 

Abstract

Given the complexities of healthcare provision, it is imperative to understand how single adults experience their interactions with medical professionals and health care organizations, manage care and treatment, and navigate the barriers encountered. This study's purpose is to understand physical and mental health experiences in consideration of social determinants of health, barriers, and coping strategies for single adults diagnosed with COVID-19. An interpretive phenomenology study design was used with 12 individuals who were single and living alone during the COVID-19 pandemic. Semi-structured, open-ended interviews revealed important aspects of the COVID-19 illness experience. Interviews were transcribed for coding and thematic analysis. Analysis of patient interview data identified 4 themes: Dealing with Isolation, Dying Alone, Managing Stigma, and Making a Support Plan. The findings offer insight into what it means to have COVID-19 for single adults who live alone. These findings can be used to help improve the illness experiences of those with COVID-19 and other serious or complex conditions.

Keywords

COVID-19, single adults, isolation, stigma, loneliness, fear of dying

Key Points

1. It is imperative to understand how single adults living alone manage care and treatment during illness.
2. This study's purpose is to understand physical and mental health experiences in consideration of social determinants of health, barriers, and coping strategies for single adults, living alone, who were diagnosed with COVID-19.
3. Analysis of patient interview data identified 4 themes: Dealing with Isolation, Dying Alone, Managing Stigma, and Making a Support Plan.
4. The findings of this qualitative study can be used to help improve the illness experiences of single adults living alone with COVID-19.

during illness, single adults may have few resources available for social support. It has been hypothesized that because of social support, married individuals live longer and have fewer complications of disease.³⁻⁵ Conversely, single people experience diminished health on several measures including self-reported health, mobility limitations, depression, and lowered life expectancy.³⁻⁵ In serious or complex chronic conditions such as cardiovascular disease or cancer, social support has been shown to affect self-management behaviors and improve self-efficacy.⁶⁻⁸

In December 2019, reports of a new respiratory illness surfaced. By March 2020, the COVID-19 virus had spread

Introduction

According to the United States Census, an ever-greater proportion of the population is single or un-partnered, less likely to live near family, or maintain multi-generational households.^{1,2} These demographic changes mean that

¹ Department of Sociology and Criminal Justice, Kennesaw State University, Kennesaw, GA, USA

² Wellstar College of Health and Human Services, Kennesaw State University, Kennesaw, GA, USA

Corresponding Author:

Linda Treiber, Department of Sociology and Criminal Justice, Kennesaw State University, Mail Drop 2204, 402 Bartow NW, Kennesaw, GA 30144, USA.

Email: ltreiber@kennesaw.edu



to 114 countries and was declared a pandemic by the World Health Organization.⁹ In subsequent months, COVID-19 proved to be one of the most contagious and deadly viruses in human history. What followed could best be described as social upheaval, with negative effects on individuals, communities, culture, and economies^{10,11}

Beginning in June 2020, guidance for individuals with suspected or confirmed COVID-19 included isolation in the home without visitors for a minimum of 10 days after onset of symptoms, plus at least 3 more days once symptoms disappeared.¹² Later, the recommendation was reduced to 5 days of isolation unless symptomatic.¹³ Social distancing measures and lockdowns restricted travel, leisure activities, and limited social activities, leading to disruption of community life. Although social isolation measures seemed necessary to halt the spread of the disease, health scholars voiced concerns about the unintended effects of social isolation.¹⁴

Yang et al¹⁵ found that individuals who reported less social support or those who were single were more likely to report higher psychological stress early in the COVID-19 pandemic. Loneliness and social isolation during the pandemic were found to be risk factors for psychiatric disorders including depression, especially in older patients.¹⁶ Younger adults were also at risk for loneliness and depression during the COVID-19 pandemic particularly when they perceived a lack of social support.¹⁷

Social determinants of health are non-medical factors that influence health outcomes. Greater understanding of the impacts of single adult status together with other social determinants of health is needed.¹⁸ Compounding the obstacles to health communication, health literacy, successful treatment, and self-care, are systemic biases associated with age, life experiences, sexual preferences, social class, gender, and race/ethnicity.^{19–21} Thus, our research fills an important gap, given the significant health disparities associated with COVID-19, the implications of facing COVID-19 with limited support, and the paucity of research focusing on single adults who lived alone and contracted COVID-19. Understanding their experiences could help us better prepare for future outbreaks of infectious diseases, especially those requiring isolation. Additionally, our research could be used to enhance adaptability and coping strategies to promote well-being in single adults living alone.

Methods

Design

This study incorporated an interpretive phenomenology research design to explore the physical and mental health experiences and concerns for single adults living alone who had been diagnosed with COVID-19. The design was chosen to explore their experiences in a natural environment. Interpretive phenomenology helps gain understanding of a phenomenon that is not well understood with the central

focus on the lived experience of individuals in the world of everyday life.^{22–24} The lived experiences give meaning to an individual's perception of a phenomenon. Considering the purpose of the study and lack of literature exploring the physical and mental health experiences of single adults with COVID-19 living alone, an interpretive phenomenological method was used.

Participants

The study took place in the southern United States, a region that ranked comparatively low for COVID-19 vaccination rates.²⁵ A convenience sample of participants was recruited by word-of-mouth, a university listserv and email, and flyers posted in community areas. Further participants were identified by a snowball sampling technique. Participants were invited to participate if they were at least 18 years of age, had a confirmed case of COVID-19 per self-report, and lived alone. Exclusion criteria included those not aged 18 years, not living alone, or not having COVID-19. A total of 12 participants contacted the research team about participation and were recruited. No further interviews were conducted once thematic saturation was achieved, and no new themes emerged during data collection and analysis.

Data Collection and Analysis

Ethical approval to conduct the study was obtained from the researchers' university Institutional Review Board (approval code IRB-FY22-16). After verifying eligibility conditions and all criteria for informed consent were read and explained to the participant, verbal informed consent from each participant was obtained as a recording before data collection began. Individual, semi-structured, open-ended interviews were conducted in person or remotely on Microsoft Teams, per participant's preference. Each interview location was mutually agreed upon by the researcher and participant. Eight of the participants opted to be interviewed via Teams and the others chose face-to-face venues.

Using a semi-structured interview guide with a predetermined set of questions, interviews began with broad questions designed to elicit the participant's understanding of the problems faced with the diagnosis. For example, a participant would first be asked to tell the researcher about their experiences with COVID-19. Further questions were asked about their perception in terms of what went well and what did not go well during the diagnostic process, health care encounters, course of the disease, and thereafter. Subsequent questions were directed to enhance and clarify the narrative description of the COVID-19 illness experience. Interviews were face-to-face or via Microsoft Teams, audio-recorded, and lasted approximately 75 min. Interviews took place in April and May 2022, on average, 18 months after COVID-19 diagnosis.

All interviews were audio-recorded and transcribed verbatim. Results of this participation were de-identified, kept

confidential, and maintained by the researchers in a password-protected location. The participants received a \$25 gift card incentive after the interview. Transcriptions were made for coding and thematic analysis.

To enhance credibility and trustworthiness of the interpretations, methodological strategies were used. A team approach was used to analyze data as identified by Guba.²³ The team included 3 doctoral educators in nursing and sociology with experience in qualitative analysis to ensure credibility through peer-checking. Data collection and interpretation occurred at the same time. The team met regularly to analyze and discuss the interpretations of each transcript and transcripts as a whole, to immerse themselves in the data and to allow new insights to emerge. An inductive approach was used during data analysis in which coding of the transcripts was guided by the data's content instead of preconceived theoretical perspectives.²⁴ Qualitative data were organized by line-by-line coding of each transcript, and themes were then identified according to this study's purpose. During the analysis of the final interview, no new codes or themes were identified ensuring data saturation. The research team analyzed the transcripts and reached agreement among interpretation of data and themes. Triangulation among researchers helped to enhance trustworthiness of the findings.²⁴

Results

A total of 12 participants completed the study. Demographic characteristics including age, gender, ethnicity, education, and relationship status, are described in Table 1. All participants lived alone at the time of their COVID-19 diagnosis. Primary physical symptoms included exhaustion, weakness, fatigue, and loss of taste and smell (Table 2). One participant required hospitalization for severe weakness and dehydration. Many participants experienced fear, anxiety, and concerns for their own health and the health of others who might have been exposed. Diagnostic testing was obtained through drive-up testing centers, doctor's offices, clinics, and using at-home testing kits. One participant was not tested until hospitalization. Another was asymptomatic, but was tested so they could join their family for Christmas. They tested positive for COVID, delaying holiday plans.

Navigating the diagnostic system was challenging for some due to lack of available appointments, while others had difficulties obtaining at-home test kits. One participant attempted to walk into a drive-up testing facility but was turned away until they could obtain vehicular transportation. Nine of the adults in the study were diagnosed with COVID-19 prior to vaccine availability (75%) and 3 contracted COVID-19 after vaccination availability (25%). Two of these individuals had been vaccinated prior to getting COVID-19. Of the participants, 3 had COVID-19 more than once.

Participants' coping strategies included allowing themselves to rest when needed, watching television, playing

video games, reaching out to others, and as allowed, getting fresh air. In addition to information on physical and emotional symptoms and coping strategies, several themes emerged from the interviews: Dealing with Isolation, Dying Alone, Managing Stigma, and Making a Support Plan. In Table 3, examples of quotes are described for each theme.

Theme 1: Dealing with Isolation

Many of the single adults in the study did not have family members living nearby. Most had little or no access to physical support or hands-on caregiving during the illness. As a result, they often sought the help of neighbors, friends, romantic partners, and delivery services to obtain food, medicine, and other supplies. Likewise, the single adults in our study had no close face-to-face social contact with other people while they had COVID-19, leading to feelings of loneliness and isolation, and putting them at risk for negative health outcomes. Communication with others came from texting, phone calls, and internet communication platforms. For some, pets helped them deal with being sick and alone. Paradoxically, some participants reasoned that having COVID-19 while living alone could be an unexpected benefit. The advantages included being able to self-manage their illness and recover on their own timetable without the fear of passing the virus to others.

Theme 2: Dying Alone

The fear of dying alone was expressed by many of the participants, particularly those individuals who had few or no family members nearby or had contracted COVID-19 prior

Table 1. Sociodemographic Characteristics of Participants.

Characteristics	Participants (n = 12)
Sex, n (%)	
Female, n	6 (50.0)
Male, n	6 (50.0)
Age (years), range, mean (SD)	24-68, 39.9 (13.1)
Ethnicity, n (%)	
White/Caucasian	7 (58.3)
Black/African American	3 (25.0)
Other	2 (8.0)
Level of education, n (%)	
High school/some college	1 (8.3)
Bachelor's degree	4 (33.3)
Master's degree	5 (41.7)
Professional	1 (8.3)
Doctorate	1 (8.3)
Relationship status, n (%)	
Single	7 (58.3)
Divorced	3 (25.0)
Widower	1 (8.3)
Diagnosis/vaccine availability, n (%)	
Diagnosed before vaccine available	9 (75%)
Diagnosed after vaccine available	3 (25%)

Table 2. COVID-19 Symptoms with Quotes from Participants.

COVID symptoms	Example(s)
Exhaustion, weakness, fatigue	<p>“I really felt too weak even to be on the phone for any length of time. So yeah, that fatigue was just... That really hit me ... the fatigue got to me to the point where I wasn't really doing anything. I got to the point where I was so weak. I had to literally crawl on my floor to get to the bathroom or get something to drink.” (Participant 2)</p> <p>“I did have some pretty severe fatigue where I was very, very tired and my energy levels were really low.” (Participant 8)</p> <p>“...just like walking from my small little apartment from one end to another and I was just dead exhausted, dead tired. I just wanted to lay down and go to sleep, do nothing else.” (Participant 1)</p> <p>“I just felt very tired and weak. Just didn't have energy to do anything.” (Participant 10)</p> <p>“You know, when you wake up, you feel kind of refreshed. But I felt I woke up and felt drained.” (Participant 3)</p>
Loss of taste and or smell	<p>“And then I think I was eating one day and I was like, I can't really like, taste everything like, I think I should be tasting it.” (Participant 7)</p> <p>“I got up to brush my teeth and I said, 'I cannot taste my toothpaste.' At that very moment, I knew I had COVID.” (Participant 9)</p> <p>“So maybe like day eight or nine, I realized I had a candle on and realized I couldn't smell. I had, like, my face was like, really in the candle to really smell it.” (Participant 10)</p> <p>“...we were joking around about my 'sinus infection' and we were talking about how one of my friends had completely lost their sense of smell. And so my coworker said 'go smell some coffee,' and I said 'OK.' And I went and put my nose into the coffee and I could not smell a thing.” (Participant 12)</p>
Sinus congestion	<p>“You know that the the, the, the sinus congestion, you know, it's like there was nothing I could do to to alleviate it. You know, usually with with my allergies. You I could take some medication and I'll be fine. But I I really couldn't alleviate it. My head felt stuffed the whole time.” (Participant 3)</p> <p>“At first I thought it was a sinus infection because umm, I was getting really bad sinus infections.” (Participant 12)</p>
Sore or scratchy throat	<p>“For me it was the throat ... just kind of a coated, funky feeling throat that I'm like, alright... This is not great.” (Participant 4)</p> <p>“My throat was never sore, but it was kind of like a like a weird scratchy feeling.” (Participant 10)</p> <p>“It just felt like a sore throat, hard to swallow.” (Participant 6)</p> <p>“I woke up with a scratchy throat and just some general congestion, and I thought, you know, maybe it was finally my time. I was double, you know, fully vaccinated and boosted and have been taking all the proper precautions.” (Participant 8)</p>
Breathing issues	<p>“...I just got slammed by exhaustion and hard breathing. I was like, 'Oh no, this is COVID.’” (Participant 1)</p>
GI symptoms	<p>“And looking back, (my doctor) and my friends think that it was a gastro version of Covid. ...just anecdotally, it seems to hit people wherever they're weakest.” (Participant 5)</p>
Coughing	<p>“Umm, so at first it was a really bad cough. Kind of sounded like a wet cough and I went to work and my coworker told me to go home.” (Participant 6)</p>
Headache	<p>“And then it it kind of got worse throughout Friday and I wanna say the headache started on Saturday. Yay me.” (Participant 4)</p>
No symptoms	<p>“It didn't seem like I felt anything at all. Like, I don't remember, not even like a, like cold type thing.” (Participant 11)</p>

to vaccine availability. During the early days of the epidemic, media reports often stressed how suddenly COVID-19 could turn from mild to serious. Participants often expressed fear or concern that their COVID-19 symptoms could worsen and that perhaps they would die alone, only to be discovered later. Most admitted that this was the kind of negative thinking they tried to avoid, but that sometimes the fears resurfaced, especially when they encountered negative media reports or when their symptoms worsened.

Theme 3: Managing Stigma

Most participants experienced stigma throughout their illness, including when communicating the news of their diagnosis to others and upon return to work and social activities. For

many, the stigma of having COVID-19 was intensified because they were single and had no one living with them. Some were hesitant to let others know that they had COVID-19. Others found that returning to daily activities after the quarantine period was unexpectedly difficult as reintegrating back into social and work-related activities was met with stigma. Some internalized feelings of self-blame and guilt for contracting the disease as if they should have been able to prevent it. Many worried about potentially passing COVID-19 to others before they found out they had it.

Theme 4: Making a Support Plan

Once participants in our study first realized they had COVID-19, they had to find ways to get the physical and

Table 3. Themes and Examples Quotes from Participants.

Theme	Example(s)
Theme 1: Dealing with Isolation	<p>“...So in the beginning, I definitely was lonely, because, again, I had no one... I didn’t have the energy to talk to people or do anything. If I did wake up after my naps, I’d just lay in there in bed. It’s like, “I’m going to get tired if I get up, so I’m just going to lay here.” I did have to put on Netflix shows, Amazon TV shows, just have some sort of white noise going around me.” (Participant 1)</p> <p>“...having no one to take care of me or do anything for me and needing to do it myself when feeling that bad and everything and being a little worried about the fact that I’ve had this disease... No, there was definitely like a few moments of feeling really, really lonely and alone and unsupported.” (Participant 4)</p> <p>“...I had COVID living alone. Umm, it’s definitely isolating because you’re locked in your place for a long time and there’s nobody there with you, but thankfully I did have a couple friends come and bring me food.” (Participant 6)</p>
Theme 2: Dying Alone	<p>“Your brain goes to the worst place in the worst-case scenario. I was thinking how long would I be dead before someone came and checked on me, you know?” (Participant 8)</p> <p>“There was a a tiny piece of me that was like if I suddenly go downhill, is anyone gonna notice? Umm, I don’t think my cats are going to call 911 or anything for me, so not a huge worry. I was feeling pretty OK, and I was like OK, if I start to decline, I think I’ll be aware enough to let someone know. But there is always that tiny ... like, what if” (Participant 4)</p> <p>“I really didn’t have a support system, other than the people that I work with called to check on me.... So, I knew there were people who were concerned about me ... if I died, I think they would’ve figured it out. Because they wouldn’t have heard [from]or seen me.” (Participant 5)</p>
Theme 3: Managing Stigma	<p>“I chose not to tell my team because many of them were freaked out about being back in the office I supervise.” (Participant 1)</p> <p>“[I felt like] a pariah... Like, I was a leper and had some disease that everybody was fearful of. ...It was very isolating.” (Participant 8)</p> <p>“I asked my supervisor if she’d go into the, into my office and take it off my desk and put it in a place where student could pick it up and she was not comfortable doing that.” (Participant 11)</p> <p>“I didn’t share it [COVID diagnosis] widely, because I already knew the stigma that was associated with it. So, I just told the people that maybe two or three friends and then my boss and my family.” (Participant 9)</p>
Theme 4: Making a Support Plan	<p>“I suppose it just would bring up the issue of try to plan ahead. Have something in place already, so that when you get sick, you have somebody who will check on you, if you’re all right. ...And it’s hard sometimes to say, “I need help.” I think I’d just prepare a support system, just to have somebody who could check on you.” (Participant 5)</p> <p>“When you live alone, and I don’t want to say that it’s fair exactly, but you kind of have to plan ahead to take care of yourself. And you have to put that effort into doing that because even though you know obviously the situation going on for a while, I did not think into the “OK, but what if you do get sick, what’s the plan?” (Participant 4)</p> <p>“You know, even if you do get COVID and you live alone, it really just depends on the resources that you have available to you at the time ... just make sure that you have the resources and/or the information to really get the care you need because you’re the only person you can rely on in that time.” (Participant 6).</p> <p>“Not having family or friends here, so I think that that’s the advice I would give is to, you know, have some people that you can rely on to help you.” (Participant 10)</p>

emotional support they needed. Drawing on their own experiences, most suggested making a support plan to cope with illness before becoming ill. Several of the participants described how they had to venture out on their own despite feeling ill because they had run out of supplies. Participants cautioned against doing this because they had put themselves and others in harm’s way. In one case, the participant drove to a shopping center to pick up groceries and collapsed in the parking lot, resulting in hospitalization. Participants advised others to make sure they had enough food, over-the-counter medications, and fluids. They recommended reaching out to others for social support early and often throughout the illness period. Participants advised others to make sure there was someone in their social networks, whether it be family, friend, or work colleague, who would periodically check on them.

Discussion

This study fills an important gap by providing an understanding of the experiences of single adults living alone with COVID-19. Their stories revealed unique concerns and coping strategies. The themes that emerged were Dealing with Isolation, Dying Alone, Managing Stigma, and Making a Support Plan. Consistent with other studies,^{26,27} participants in our sample expressed fear and psychological distress about dying from COVID-19; however, rather than just the fear of dying, they reported that their distress was increased because nobody was with them to know if their condition worsened or if they had died. This supports the findings of Yang et al¹⁵ that lack of social support during the pandemic was more likely to cause higher psychological stress.

A surprising finding was that some participants thought that being alone with COVID-19 was better because it reduced the chance of spreading the virus to family or friends. This supports the findings from Sloan et al²⁶ that during the pandemic, people displayed altruistic fear, which is fear about significant others contracting the virus. This finding adds an additional dimension to findings that loneliness and social isolation during the pandemic have been found to be risk factors for psychiatric disorders.^{16,17}

Many studies document widespread stigma associated with COVID-19.^{10,11} Likewise, participants in this study experienced various forms of stigma, which they felt intensified their isolation and loneliness. While stigma was a common phenomenon experienced by those with COVID-19 whether living alone or with a partner, this finding among study participants is important because those who live alone have a significantly higher incidence of psychiatric disorders.^{28–30} Participants also reported feelings of shame and guilt likely resulting from internalization of social stigma. This finding was not unique to those living alone.^{26,28} Participants reported various strategies for dealing with loneliness. Planning for social and physical support during illness was a coping mechanism identified by participants.

Studies have reported social support as an essential coping strategy in stressful situations.^{26,30} While all participants in this study had access to communication with others via texting, phone calls, and video communication platforms, some reported that they lacked the energy to communicate with family and friends.

Implications

This study highlights unique challenges for people who live alone. Our research suggests that there is a need for health systems to consider forms of support for patients who live alone during a public health emergency that requires isolation. Social isolation has been associated with a substantial increase in risk of premature mortality from all causes.³⁰ Additionally, research indicates that social isolation and loneliness are strongly associated with an increased incidence of psychological issues such as depression, anxiety, and suicidal ideation.³¹ Health care providers should not assume everyone has family and significant others available for social and physical support.

When recommending isolation or quarantine, health care providers should assess patients for support. The potential problems associated with social isolation should be discussed and interventions should be recommended. There is a need for policy makers to consider added resources for people living alone in the case of a public health emergency that requires home isolation to curb disease spread.

Limitations and Future Directions

Limitations of this study include a small, homogenous sample. Most participants had some college education, which could positively affect their ability to make informed health care

decisions. Although we did not ask about income and wealth, we recognize that education is linked to access to financial resources. Therefore, the transferability of our findings to less privileged groups is limited. This limitation highlights the need for future research to better understand the experiences for those with less education and affluence. The study was conducted in the southern United States, where vaccination rates tended to be low.²⁵ Future research might include other parts of the United States for comparison.

This study included single adults who were living alone and did not exclude those who had been divorced or widowed. We recognize that age and prior marital status could affect the experience of living alone with COVID. Future research might examine these groups separately to show commonalities and disparities between their experiences. Most of the participants contracted COVID-19 before vaccines were available to them, which might have contributed to their anxiety about having the illness while living alone. Those who initially contracted COVID-19 after being vaccinated tended to have less severe symptoms. Regardless of limitations, the findings have important implications for healthcare providers who care for single adults with COVID-19 who live alone.

Conclusion

In summary, our research offers insight into what it means to have COVID-19 for single adults who live alone and the associated risks for loneliness and social isolation. Participants sought social support by reaching out to others through telephone calls, facetime, texts, and other forms of electronic communication. Because they were single and living alone at the time of their COVID-19 diagnosis, they had to rely on people outside of their home for supplies, food, and medicine. As relatively well-educated individuals they had the financial resources and personal networks to aid in this goal. Many experienced a stigma associated with the illness and some were reluctant to disclose. Looking back on their experiences, all were able to offer advice to others who might find themselves in similar situations. Thus, we believe these findings add to our knowledge of the social determinants of health and can be used to help improve the illness experiences of those with COVID-19 and other health conditions.

Acknowledgments

We gratefully acknowledge the adults who participated in this study.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This

study was supported by the Radow College of Humanities and Social Sciences, Kennesaw State University.

Ethical Approval

Ethical approval to report this case was obtained from Kennesaw State University Institutional Review Board (IRB-FY22-16).


Statement of Human and Animal Rights


All procedures in this study were conducted in accordance with the Kennesaw State University Institutional Review Board (RB-FY22-16) approved protocols.


Statement of Informed Consent

Verbal informed consent was obtained from the participant(s) for their anonymized information to be published in this article.

ORCID iDs

Linda Treiber  <https://orcid.org/0000-0001-6836-0254>

Christie Emerson  <https://orcid.org/0000-0002-8414-3660>

Jenna Shackelford  <https://orcid.org/0000-0003-1310-6229>

Supplemental Material

Supplemental material for this article is available online.

References

1. Fry R. More Americans are living without partners, especially young adults. Pew Research Center; 2017. Accessed September 6, 2024. <http://pewrsr.ch/2kG037Q>
2. US Census Bureau. US Census Bureau releases 2018 families and living arrangements Tables. Published November 14, 2018. Updated October 8, 2021. Accessed September 6, 2024. <https://www.census.gov/newsroom/press-releases/2018/families.html>
3. Hughes ME, Waite L. Health in household context: living arrangements and health in late middle age. *J Health Soc Behav.* 2002;43(1):1-21
4. Kaplan RM, Kronick RG. Marital status and longevity in the United States population. *J Epidemiol Community Health.* 2006;60(9):760-5. doi:10.1136/jech.2005.037606
5. Kiecolt-Glaser JK, Newton TL. Marriage and health: his and hers. *Psychol Bull.* 2001;127(4):472-503. doi:10.1037/0033-2909.127.4.472
6. Gobeil-Lavoie A, Chouinard M, Danish A, Hudon C. Characteristics of self-management among patients with complex health needs: a thematic analysis review. *BMJ Open.* 2019;9(5):1-5. doi:10.1136/bmjopen-2018-028344
7. Irani E, Moore SE, Hickman RL, Dolansky MA, Josephson RA, Hughes JW. The contribution of living arrangements, social support, and self-efficacy to self-management behaviors among individuals with heart failure: a path analysis. *J Cardiovasc Nurs.* 2019;34(4):319-26. doi:10.1097/JCN.0000000000000581
8. Williams GR, Pisu M, Rocque GB, et al. Unmet social support needs among older adults with cancer. *Cancer.* 2019;125(3):473. doi: 10.1002/cncr.31809
9. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19. Published March 11, 2020. Accessed September 6, 2024. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>
10. British Academy. The COVID decade: understanding the long-term societal impacts of COVID-19. Published 2021. Accessed September 6, 2024. <https://www.thebritishacademy.ac.uk/publications/covid-decade-understanding-the-long-term-societal-impacts-of-covid-19/>
11. Klinenberg E. *One city, seven people, and the year that changed everything.* Alfred A. Knopf; 2020.
12. World Health Organization. Criteria for releasing COVID-19 patients from isolation: scientific brief. Published June 17, 2020. Accessed September 6, 2024. <https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation>
13. Centers for Disease Control and Prevention. CDC updates and shortens recommended isolation and quarantine period for general population. US Official News. Published December 30, 2021. Accessed September 4, 2024. https://archive.cdc.gov/www_cdc_gov/media/releases/2021/s1227-isolation-quarantine-guidance.html
14. Vieira PR, Garcia LP, Maciel ELN. The increase in domestic violence during the social isolation: what does it reveal? *Rev Bras Epidemiol.* 2020;23:e200033. doi:10.1590/1980-549720200033
15. Yang X, Xiong Z, Li Z, et al. Perceived psychological stress and associated factors in the early stages of the coronavirus disease 2019 (COVID-19) epidemic: evidence from the general Chinese population. *PLoS One.* 2020;15(12):e0243605. doi:10.1371/journal.pone.0243605
16. Lozupone M, La Montagna M, Di Gioia I, et al. Social frailty in the COVID-19 pandemic era. *Front Psychiatry.* 2020;11:1-8. doi:10.3389/fpsy.2020.577113
17. Lee CM, Cadigan JM, Rhew IC. Increases in loneliness among young adults during the COVID-19 pandemic and association with increases in mental health problems. *J Adolesc Health.* 2020;67(5):714-7. doi:10.1016/j.jadohealth.2020.08.009
18. McGilton KS, Vellani S, Yeung L, et al. Identifying and understanding the health and social care needs of older adults with multiple chronic conditions and their caregivers: a scoping review. *BMC Geriatr.* 2018;18(1):1. doi:10.1186/s12877-018-0925-xBarr DA
19. Cooper LA, Roter DL, Carson KA, et al. The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care. *Am J Public Health.* 2012;102(5):979-87. doi:10.2105/ajph.2011.300558
20. DeVoe JE, Wallace LS, Fryer GE Jr. Measuring patients' perceptions of communication with healthcare providers: do differences in demographic and socioeconomic characteristics matter? *Health Expect.* 2009;12(1):70-80. doi:10.1111/j.1369-7625.2008.00516.x
21. Hawkins JM, Mitchell J. The doctor never listens: older African American men's perceptions of patient-provider communication. *Soc Work Res.* 2018;42(1):57-63. doi:10.1093/swr/svx028

22. Streubert H, Carpenter D. *Qualitative research in nursing*. 5th ed. Lippincott Williams & Wilkins; 2011.
23. Guba E. Criteria for assessing the trustworthiness of naturalistic inquiries. *Educ Technol Res Dev*. 1981;29(2):75-91.
24. Naem M, Ozuem W, Howell K, Ranfagni S. A step-by-step process of thematic analysis to develop a conceptual model in qualitative research. *Int J Qual Methods*. 2023;22:1-18. doi:10.1177/16094069231205789Nakireka
25. Gilligan C, Wolf C, Rezal A. States with the worst COVID-19 vaccination rates. US News and World Report. Published December 14, 2022. Accessed August 26, 2024. <https://www.usnews.com/news/best-states/articles/these-states-have-the-lowest-covid-19-vaccination-rates>
26. Sloan MM, Haner M, Graham A, Cullen FT, Pickett JT, Jonson CL. Pandemic emotions: the extent, correlates, and mental health consequences of fear of COVID-19. *Sociol Spectr*. 2021;41(5):369-86. doi:10.1080/02732173.2021.1926380
27. Zhang H, Xie F, Yang B, Zhao F, Wang C, Chen X. Psychological experience of COVID-19 patients: a systematic review and qualitative meta-synthesis. *Am J Infect Control*. 2022;50(7):809-19. doi:10.1016/j.ajic.2022.01.023
28. Li LZ, Wang S. Prevalence and predictors of general psychiatric disorders and loneliness during COVID-19 in the United Kingdom. *Psychiatry Res*. 2020;291:1-6. doi:10.1016/j.psychres.2020.113267
29. Chilon-Huaman A, Camposano-Ninahuanca A, Chavez-Sosa J, Huancahuire-Vega S, De Borja W. Association between family support and coping strategies of people with COVID-19: a cross-sectional study. *Psychol Res Behav Manag*. 2023;16:2747. doi:10.2147/PRBM.S410068
30. Naito R, McKee M, Leong D, et al. Social isolation as a risk factor for all-cause mortality: systematic review and meta-analysis of cohort studies. *PLoS One*. 2023;18(1):e0280308. doi:10.1371/journal.pone.0280308
31. Planger B, Unterrainer C, Kreh A, Gatterer G, Juen B. Psychological effects of social isolation during the COVID-19 pandemic 2020. *GeroPsych (Bern)*. 2022;35(1):17-29. doi:10.1024/1662-9647/a000283