Impact of Social Isolation in HIV-Positive Individuals During a Pandemic

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Impact of Social Isolation in HIV-Positive Individuals During a Pandemic

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A Dissertation submitted to The Graduate School at the University of Missouri-St. Louis in partial fulfillment of the requirements for the degree Doctor of Nursing Practice with an emphasis in Family Nurse Practitioner

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Abstract

Problem: The global pandemic of COVID-19 caused concern for immunocompromised individuals. The purpose of this quality improvement initiative was to assess the impact of social isolation on feelings of loneliness, depression, and social isolation experiences in HIV-positive individuals residing in a long-term care facility.

Methods: A mixed-method convergent design with a purposeful sample of HIV-positive adult residents residing in a long-term care facility was utilized. An evaluation of loneliness using the University of California Los Angeles (UCLA) Loneliness Scale (Version 3) and depression using the Patient Health Questionnaire-8 (PHQ-8) were completed. Personal experiences were also assessed with five predetermined open-ended interview questions.

Results: There were 15 HIV-positive adult residents (N = 15) who completed the interview. Mean scores for PHQ-8 and UCLA Loneliness Scale (Version 3) were 8 (SD=6.96) and 47 (SD=10.02), respectively. There were 11 participants (73%) with PHQ-8 scores indicating depression. Of those, three participants (20%) scored PHQ-8 above nine and required immediate referral. A moderately strong relationship was demonstrated between depression and loneliness, i.e. the higher the level of depression, the higher the level of loneliness the individual was likely to be ($r_s = 0.56$, $p = .030$, 95% CI [0.07, 0.83]).

Implications for Practice: Impact of social isolation on feelings of loneliness and depression varied. The moderately strong relationship between depression and loneliness indicated strategies for loneliness reduction could impact depression in HIV-positive individuals living in a long-term care facility.
Significant advancements in research and treatment increased the lifespan of people living with chronic conditions, including HIV/AIDS. Approximately 1.2 million people in the United States (U.S.) are diagnosed with active HIV, but nearly 14% are undiagnosed (U.S. Department of Health & Human Services [HHS], 2020). Managing a chronic health condition can be overwhelming, and attribute to depression, especially in vulnerable populations with limited resources. Adding to the complexity of depression and chronic illness, the global pandemic of coronavirus disease 2019 (COVID-19) raised concern for immunocompromised individuals at increased risk for severe complications as a result of contracting the virus.

The impact of the COVID-19 pandemic also revealed ways the health care system is failing to protect vulnerable adults living in long-term care (LTC) facilities. By May of 2020, LTC facilities accounted for approximately 43% of all deaths related to COVID-19 (Gurwitz & Bonner, 2020). Federal and state policy responses to LTC facilities were implemented across the U.S. as a means to protect this susceptible group from COVID-19 (Bu, Steptoe, & Fancourt, 2020). There is, however, concern for loneliness and depression as a result of limited social interaction during the pandemic, particularly in vulnerable populations (Luchetti et al., 2020).

Several populations were identified as high-risk for loneliness during isolation before the COVID-19 pandemic. Populations at risk included women, young adults (25-years of age or younger), older adults (65-years of age or older), living alone, low socio-economic status, poor mental health, and poor physical health (Bu et al., 2020; Holt-Lunstad, 2017). Before the COVID-19 pandemic, loneliness from isolation was found to be associated with increased risk of mental and physical illness, depression, cognitive
changes, and mortality (Bu et al., 2020; Holt-Lunstad, 2017). These findings can easily be associated with heightened concerns about effects of loneliness during COVID-19, particularly in the HIV-positive population.

In urban areas, the HIV epidemic has and continues to significantly affect those persons who are economically disadvantaged (Denning & DiNenno, 2019). Additional disparities faced by this population are barriers to healthcare, limited or no income, inadequate nutrition, co-occurring health conditions, and substance abuse. To address physical, emotional, and social needs of HIV-positive individuals, an interfaith nonprofit organization based in an urban large Midwestern city was formed in 1988 to improve overall quality of life (QOL). To date, this program is the largest housing agency in the state assisting individuals affected by HIV, who may otherwise be homeless. Social work, nursing care, food services, and behavioral health resources are available to residents in the program.

There is an opportunity to positively impact conditions for HIV-positive adults living in LTC during social isolation. The purpose of this quality improvement (QI) initiative was to recognize areas in which additional resources may be allocated to support mental health needs of HIV-positive adults in LTC experiencing social isolation during the COVID-19 pandemic. The aim was to evaluate how isolation measures implemented during the COVID-19 pandemic impacted perceived loneliness and depression ratings in HIV-positive adults in LTC. The outcome measures of interest were the University of California Los Angeles (UCLA) Loneliness Scale (Version 3) scores, Patient Health Questionnaire-8 (PHQ-8) scores, and responses from five open-ended interview questions targeting their isolation experience and adjustment during the
pandemic. The question for study was: in adults 18-years of age and older living in a residential community for HIV-positive individuals during the COVID-19 pandemic, what is the impact of social isolation on feelings of loneliness, depression, and social isolation experiences?

**Review of the Literature**

A review of literature search was conducted using three search engines: CINAHL, APA PsycInfo, and PubMed. Key search terms included *HIV, Depression, Isolation, Social Distancing, Loneliness, Screening, Long-Term Care, Pandemic,* and *COVID-19.* In addition, Boolean operators AND and OR were used. Publication abstracts were initially reviewed for the following criteria: (a) social isolation, (b) study group included HIV-positive people, (c) depression, or (d) impact of COVID-19. Furthermore, inclusion criteria were subjects 18-years and older, mixed male and female subjects, quantitative or qualitative research design, published in English, and published after 2010. Articles excluded were research studies with pediatric populations, selective for male or female subjects only, non-English publications, non-research, and publications before 2010. However, there were two studies published over 10-years ago selected for this review due to relevance of the subject matter. Ultimately, 14 publications were selected for this literature review.

Clinicians and researchers have a well-known understanding of the relationship between HIV-positive individuals and depression. Evidence indicates depression is the most common neuropsychiatric complication in HIV-positive individuals, but often goes unrecognized and untreated (Arseniou, Arvaniti, & Samakouri, 2013; Deshmukh, Borkar, & Deshmukh, 2017). Some causes have been linked to increased depression in HIV-
positive people, such as HIV stigma, economic concerns, physical debilitation, body image, isolation, and work-related disability (Arseniou et al., 2013). Co-occurrence of depression in HIV-positive individuals was associated with reduced medication adherence, poor treatment outcomes, QOL, and functionality (Deshmukh et al., 2017; Nanni, Caruso, Mitchell, Meggiolaro, & Grassi, 2014). In addition, depression is one of the leading causes of death in the HIV population (Ayano, Solomon, & Abraha, 2018). Although depression and HIV have been well studied, there is limited study on its impact during a global pandemic.

Regardless, research is inconclusive of whether depression is a result of the HIV infection or a complication of the disease. Often, there is an overlap of symptoms (Arseniou et al., 2013; Nanni et al., 2014). Additional contributing factors may include the stages of HIV disease, treatment status, CD4 level, varying depression screening instruments, and different criteria to define depression (Ayano et al., 2018). Despite the cause of depression, HIV-positive individuals are recommended to have constant clinical monitoring for depressive symptoms in all phases of HIV infection (Nanni et al., 2014).

Depression can be detected through individual screening. Depression screening is recommended for all healthy adults and those with chronic health conditions (Maurer, Raymond, & Davis, 2018). Screening should be conducted in a setting with trained professionals for appropriate diagnosis, treatment, and follow-up care (Maurer et al., 2018). The two most commonly used screening instruments for depression in adults are the PHQ-2 and PHQ-9 (Maurer et al., 2018). The PHQ-2 asks two questions, and if positive, the PHQ-9 is recommended, but often the PHQ-9 is used exclusively. Questions from the PHQ-9 instrument ask about energy, appetite, sleep, interests, and feelings of
self-harm. Interpretation of depression screening scores are defined as minimal (1-4), mild (5-9), moderate (10-14), moderately severe (15-19), and severe (20-27). While several depression screening instruments are available, Maurer et al. (2018) did not support using one screening instrument over another in adults. However, compared to other depression screening instruments, the PHQ-9 is shorter in length, more comprehensive, has higher sensitivity, and specificity ranges greater than 90% (Kroenke, Spitzer, & Williams, 2001; Maurer et al., 2018).

Research ethic boards may require follow-up for participants with a positive response to item nine on the PHQ-9, which can lead to unintended consequences from false signals of suicide risk, such as increased research costs and inconvenience to participants (Wu et al., 2019). The PHQ-8 can be used as an alternative to PHQ-9 when screening for depression, which omits item nine. A systematic review and individual participant data meta-analysis study were used to assess equivalency of the diagnostic accuracy in detecting major depression with the PHQ-8 and PHQ-9 (Wu et al., 2019). Findings indicated the PHQ-8 was slightly less sensitive than the PHQ-9, and specificity was equivalent (Wu et al., 2019). Overall, the results of PHQ-8 and PHQ-9 total scores were similar, indicating both are reliable screening tools for depression.

Depression screening at regular intervals may be beneficial for HIV-positive individuals, who may be at increased risk during a pandemic. The uncertainty of the unknown from the COVID-19 pandemic is expected to increase the incidence and prevalence of mental health problems, such as anxiety and depression (Alonzi, La Torre, & Silverstein, 2020; Dozois, 2020; Rettie & Daniels, 2020; Ettman et al., 2020). Dozois (2020) conducted a national survey in Canada to determine the impact of the COVID-19
Social isolation in HIV-positive individuals

The pandemic on self-reported mental health. The sample consisted of randomly selected adults from the general population comprised of 927 females, 867 males, and seven in “another” gender category (Dozois, 2020). Approximately 18% of participants were diagnosed with depression or anxiety previously (Dozois, 2020). Findings revealed self-reported ratings of anxiety quadrupled and ratings of depression more than doubled since the start of the pandemic (Dozois, 2020). This finding was consistent with similar research on mental health and the COVID-19 pandemic (Alonzi et al., 2020; Rettie et al., 2020; Ettman et al., 2020). However, HIV populations were not studied; therefore, the incidence of depression in the HIV-positive populations remains unknown.

A recent systematic review discovered individuals with well-controlled HIV disease were not at an increased risk for contracting COVID-19, or suffer from complications when compared to the general public (Cooper, Woodward, Alom, & Harky, 2020). This may be a result of ongoing antiretroviral therapy (ART) and social distancing measures. While the COVID-19 pandemic continues, there is limited data on its impact on the HIV-positive community; therefore, continuation of ART and COVID-19 prevention measures are still current recommendations (Cooper et al., 2020).

Individuals living in LTC facilities are restricted by facility and government regulations prohibiting visitors and enforcement of stay-at-home orders during the COVID-19 pandemic. As a result, physical isolation from friends and family may result in conflicted feelings between physical and mental safety measures. Social isolation and loneliness are separate experiences, but both are characterized by a lack of social connection (Holt-Lunstad, 2017). Social isolation is defined as the objective absence or near-absence of social connection; loneliness is defined as a subjective emotional feeling.
of isolation due to unmet needs of social relationships (Ge, Yap, Ong, & Heng, 2017). Two studies found social isolation and loneliness are individually associated with depression symptoms, increased risk of morbidity, and increased risk of mortality (Ge et al., 2017; Luchetti et al., 2020). Findings from an adult population-based study in Singapore reported loneliness was more harmful to mental health when compared to social isolation (Ge et al., 2017). Screening depressed individuals for loneliness is recommended for early initiation of interventions and prevent poorer outcomes.

Two commonly used screening instruments for loneliness are De Jong Gierveld and UCLA Loneliness Scale. The UCLA Loneliness Scale was the first instrument developed over 20-years ago and has undergone several revisions (Russell, 1996). Revisions of the instrument incorporated positively worded items, a simplified response format, and availability in different languages across the world. All statements begin with, “how often do you feel…” and each item is scored with a 4-point Likert scale ranging from one (never) to four (always). Positively worded items are reverse-coded, indicating a higher value and increased loneliness. The total score ranges from 20 to 80, and higher scores indicate a stronger feeling of loneliness. Analyses of the psychometric properties of Version 3 were conducted in a variety of settings comprised of college students, hospital-based nurses, public school teachers, and elderly (Russell, 1996). Data collection methods used included self-report questionnaires, mail surveys, and personal interviews (Russell, 1996). Findings documented coefficient alpha ranged from .89 to .94 across population samples, confirming Version 3 to be highly reliable (Russell, 1996). To date, this instrument has been reported to be reliable and valid for assessing loneliness across a variety of populations and data collection methods.
The literature documents a high prevalence of depression in HIV-positive individuals, increased risk of loneliness as a result of social isolation, and increased rates of anxiety and depression during the COVID-19 pandemic in all populations. A major finding in these studies was a need for resources in vulnerable populations at greater risk for depression to prevent mental health complications. A variety of study designs, including systematic reviews and meta-analysis, were used to support strong evidence for conclusions. A limitation of the literature review was a lack of evidence supporting effective interventions to address perceived loneliness during isolation. Until recently, the mental health implications of social distancing measures were not considered, and efforts to describe the experience of those isolated are needed.

The framework selected to guide this study was the Iowa Evidence-Based Practice (EBP) Model. Loneliness and isolation in the HIV-positive population is a problem-focused trigger and priority for the organization. This literature review was created to determine if changes in care are needed to reduce the comorbidities of loneliness and depression on HIV-positive individuals during a pandemic.

**Method**

**Design**

The design for this initiative was a mixed-method, convergent design. One structured in-person interview was conducted with each participant. Five open-ended questions were asked during each interview. An evaluation of loneliness using the UCLA Loneliness Scale (Version 3) instrument and evaluation of depression using the PHQ-8 instrument were completed in April 2021. This project was the next cycle of a quality improvement initiative for depression in HIV-positive individuals.
Setting

The initiative took place at a LTC facility for HIV-positive individuals who would otherwise be homeless, and is an interfaith nonprofit organization based in a large urban Midwestern metropolitan area of over 1.5 million residents. The most recent estimation of homeless individuals in the city was 6,990 persons (National Alliance to End Homelessness, 2018). According to the state HHS, in 2018, this region had 6,320 persons living with HIV (MOHHS, 2018). There are 36 residential units within the facility receiving 24-hour nursing care. All residents are HIV-positive and suffer from at least one additional co-morbidity. Employed staff includes social workers, dietary staff, behavioral health services, registered nurses (RNs), licensed practice nurses (LPNs), certified nursing assistants (CNAs), a licensed counselor, and activities coordinator.

Sample

A purposive sample of HIV-positive residents was obtained using the inclusion criteria of an HIV-positive diagnosis, a current resident of LTC facility, 18-years of age or older, and English speaking. Exclusion criteria were individuals who were not residents of the LTC facility, younger than 18-years, non-English speaking, and an uncontrolled diagnosed major psychiatric disorder (e.g. schizophrenia, personality disorder, and dementia). All residents meeting inclusion criteria were invited but not required to be in the project.

Data Collection/Analysis

Participants were recruited by flyers advertising the scheduled meetings placed on walls at the LTC facility. Predictor variables collected were age, gender, race/ethnicity, level of education, and tobacco use. A staff member from the facility was present during
each interview to follow the organization’s safety policy. The PHQ-8 was administered verbally by the PI to participants and answers recorded during the interview by the PI. The UCLA Loneliness Scale (Version 3) was administered verbally by the PI to participants and answers recorded during the interview by the PI. Additionally, responses from five predetermined open-ended interview questions were documented.

Final scores from screening instruments and interview responses were stored in an Excel spreadsheet. All personal identifiers were removed, and data were coded with a unique identifier based on their order of participation, such as first interview was coded as one, second interview was coded as two, and so on. Data were stored on a password-protected computer and a removable drive owned by the PI. Data will be stored for a period of seven years and then deleted. Quantitative data were prepared for statistical analysis using Microsoft Excel and analyzed using Intellectus Statistics software. Descriptive statistics, Spearman’s rho, Kruskal-Wallis rank sum test, and linear regression were used for data analysis. Qualitative data were reviewed for similarities.

Approval Process

Approval was obtained from the LTC facility’s administration. Additional approvals were from the student’s doctoral committee, university graduate school, and the university’s institutional review board (IRB). A benefit of this study was identifying incidence of depression and loneliness in HIV-positive individuals living in a LTC facility during a pandemic. Participants’ data were de-identified, and results were used internally at the discretion of the facility’s administration, thereby posing minimal risk.

Procedures

Initial project planning commenced with routine meetings between the PI, DNP
committee, and chief program officer from the collaborating organization. The team determined the PI would be the best resource to select eligible participants for this study. Individual in-person interviews with participants were scheduled and held in a designated private room at the LTC facility with the PI and staff member present. The Background Form, UCLA Loneliness Scale (Version 3), PHQ-8, and five open-ended interview questions were completed during each interview. If a participant screened positive for depression with a score above nine, the PI flagged the screening questionnaire. Then, the PI notified the social worker after each interview to initiate a referral to behavioral health.

**Results**

From the 36-bed residential facility, 15 HIV-positive adult residents completed the interview. Participants’ ages ranged between 25-65 years, with the mean age of 51 (SD=11.85). Participant age primarily ranged between 56-65 years (n=7, 46.7%), three ranged between 46-55 years (n=3, 20%), four ranged between 36-45 years (n=4, 26.7%), and one ranged between 25-35 years (n=1, 6.67%). Sample was predominantly male (n=14, 93.3%), and there was one female (n=1, 6.7%). Distribution by race/ethnicity, the Black population was most reported (n=13, 86.7%) and two were White (n=2, 13.3%). Two participants had less than a high school diploma (n=2, 13.3%), seven had a high school diploma (n=7, 46.7%), five had some college (n=5, 33.3%), and one had a four-year college degree or more (n=1, 6.7%). Eight participants had never used tobacco (n=8, 53.3%), two had formerly used of tobacco (n=2, 13.3%), and five are current tobacco users (n=5, 33.3%). (Appendix A)

The number of participants scoring in the minimum depression range on the PHQ-8 was four (n=8, 26.7%); for the mild to moderate depression range there were eight
(n=8, 53.3%); and there were three (n=3, 20%) who scored in the moderately severe to severe depression range. The UCLA Loneliness Scale (Version 3) uses a minimum score of 20 and a maximum score of 80 to measure loneliness. Participant scores ranged from 24-62, with a mean score of 47 (SD=10.02), indicating moderate loneliness. A Spearman’s rho was conducted to determine the strength of the relationship between the PHQ-8 and the UCLA Loneliness Scale (Version 3). A moderately strong relationship was observed between the PHQ-8 scores and UCLA Loneliness Scale (Version 3) scores ($r_s = 0.56$, $p = .030$, 95% CI [0.07, 0.83]). Therefore, this relationship is interpreted as the depression becomes more severe, loneliness increases.

A linear regression analysis was conducted with age as the independent variable and the PHQ-8 score as the dependent variable. Age was not found to be related to the PHQ-8 score ($F(1,13) = 0.33$, $p = .577$, $R^2 = 0.02$). An additional regression was conducted with age as the independent variable, and the UCLA Loneliness score as the dependent variable, but age was not found to be related to the loneliness score ($F(1,13) = 0.78$, $p = .393$, $R^2 = 0.06$).

A Kruskal-Wallis rank sum test was conducted to determine if there was a relationship between tobacco use and level of education variables with PHQ-8 and UCLA Loneliness scores. Tobacco use was not found to be related to PHQ-8 scores ($\chi^2=0.09$, $p=.957$) or UCLA Loneliness scores ($\chi^2=0.86$, $p=.650$). Level of education was not found to be related to PHQ-8 scores ($\chi^2=3.26$, $p=.353$) or UCLA Loneliness scores ($\chi^2=0.92$, $p=.590$).

The five open-ended interview question answers were reviewed for similarities. Then, the similarities were organized into a table format with supporting quotes from
participants. Feelings of loneliness, sadness, anxiety, and loss of control were identified almost universally. Communication, support, and reassurance from staff helped ease the tension felt during isolation. A few participants did not feel impacted the COVID-19 pandemic. Overall, many participants expressed appreciation and gratitude for the care they received from the LTC facility staff. (Appendix C)

**Discussion**

Impact of social isolation on feelings of loneliness, depression, and social isolation experiences were varied. Most of the participants scored in the minimum or moderate depression range on the PHQ-8, but 20% scored in the severe depression range. Likewise, most participants scored in the moderate loneliness range on the UCLA Loneliness Scale (Version 3). Of importance however, was the moderately strong relationship between depression and loneliness, as depression became more severe the feelings of loneliness increased.

During each interview, participants voiced in their own words how they felt before the pandemic, during isolation, and in the present. Many described a feeling of normalcy and freedom before the pandemic. Prior to the pandemic, the LTC staff organized group activities for residents, permitted visitors, and allowed residents to leave the facility as they pleased. During isolation, residents were confined to their room, and relied on staff to bring their food and personal care needs. Participants described this experience as feelings of entrapment, loss of control, and loneliness. In addition, many noted changes in their mood, such as anxiety, frustration, and depression.

Based on feedback received from participants, communication and reassurance from LTC staff helped ease the tension felt during isolation. Also, speaking to family and
friends by telephone was helpful, but many did not have the resources to do video calls. Additional responses varied among participants, some found music, reading, praying, and painting to be helpful, while others mentioned television, games, and crossword books. Overall, most participants felt the LTC staff did all they could to assist them during isolation. As restrictions continue to be lifted, participants are starting to feel hopeful and less depressed. However, some voiced their concerns about being out in the community, as there are still risks involved with contracting the virus.

This QI initiative provided the collaborating organization with important information needed about the impact of isolation on HIV-positive individuals during the COVID-19 pandemic. Limitations to this assessment included a lack of diversity and small sample size, which resulted in insufficient sample sizes among variable categories. Without previous depression or loneliness screening scores for comparison, this study only provided information during a pandemic and could not identify trends over time. Strengths of this study included the use of a mixed-method, convergent design. Qualitative data identified personal experiences described during individual interviews, and supported the quantitative data obtained.

Recommendations for further study include using a larger sample size, future isolation planning, identifying actionable planning efforts, follow-up depression and loneliness screening during and after the pandemic to identify trends, and addition of anxiety screening. Addressing residents’ fears about contracting COVID-19 and/or their traumatic experiences during isolation are encouraged. Moreover, residents can benefit from video visits or low-risk outdoor visits with loved ones, and engage in group activities with implemented safety measures.
Conclusion

Participants in the LTC facility for HIV-positive individuals reported moderate to severe depression and an increase in feelings of loneliness as depression increased. During the COVID-19 pandemic, LTC facilities were required to enforce social isolation in an effort to control the spread of infection. During this time, those who were more depressed were also lonelier. Rates of depression are disproportionately higher in HIV-positive individuals, and behavioral health services are necessary to enhance their health and overall quality of life. Opportunities to impact feelings of loneliness may minimize depression symptoms for HIV-positive adults living in LTC during social isolation.
References


Appendix A

Table 1. *Frequencies and Percentages of Sample Demographics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>93.33</td>
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<tr>
<td>Female</td>
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<td>6.67</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>13</td>
<td>86.67</td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>13.33</td>
</tr>
<tr>
<td>Education</td>
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<td></td>
</tr>
<tr>
<td>&lt; High school diploma</td>
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<td>13.33</td>
</tr>
<tr>
<td>High school diploma or equal</td>
<td>7</td>
<td>46.67</td>
</tr>
<tr>
<td>Some college</td>
<td>5</td>
<td>33.33</td>
</tr>
<tr>
<td>4-Year college or more</td>
<td>1</td>
<td>6.67</td>
</tr>
<tr>
<td>Tobacco</td>
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<td></td>
</tr>
<tr>
<td>Never</td>
<td>8</td>
<td>53.3</td>
</tr>
<tr>
<td>Former</td>
<td>2</td>
<td>13.33</td>
</tr>
<tr>
<td>Current</td>
<td>5</td>
<td>33.33</td>
</tr>
</tbody>
</table>
## Appendix B

### Table 2. Personal Experiences During Isolation

<table>
<thead>
<tr>
<th>1. How has the pandemic affected you?</th>
<th>2. How did you feel when you couldn’t go anywhere?</th>
<th>3. What was helpful to you during isolation?</th>
<th>4. What additional support would have been helpful during isolation?</th>
<th>5. How did you feel during isolation and how do you feel now? How does it compare to your feelings before the pandemic?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separated from loved ones and missed important events. Many have felt out of control, anxious, depressed, and lonely. Few did not feel affected by the changes.</td>
<td>Felt overwhelmed and trapped. Experienced changes in their mood, such as anxiety, angry, frustrated, and sad. “When I get low I sing, but I didn’t feel like singing.” “Like a prisoner.” “That made me feel really depressed.” “I felt like I hit rock bottom.” “Had some anxiety.” “I felt that it was necessary to keep everybody safe, but I was still annoyed that I just couldn’t go.”</td>
<td>Support, communication, and reassurance from the staff. Additional feedback included reading, activities, phone calls, music, self-reflection, praying, candles, food, and time spent outdoors. “The staff made me feel that I was wanted. They made me feel like everything was going to be okay.” “The staff asked if we needed anything.” “If I asked, they got it done.” “I felt that the staff covered everything.”</td>
<td>Additional support and communication from staff and loved ones. Adjusting the restrictions on visitation rights. “Well for me, I just need somebody to talk to.” “Talked to the family on the phone, but it’s not the same.” “I miss the hugs, that brightens up your day, it was like family, warm handshakes.” “Let us out a little bit, I couldn’t go to the microwave.” “To be perfectly honest, they did all they could.”</td>
<td>Before, they enjoyed their autonomy and group activities. During isolation, they felt lonely and didn’t feel part of a community. Now, they are noticing their mood improve and are beginning to feel hopeful. A few are still afraid to be out in the community. “I kind of felt lonely. I feel much better now.” “I feel like a new person. When I went in I was an angry person. Now, I’m a happy person. I’m content with me.” “I feel a little bit better now, but it’s still a process.”</td>
</tr>
</tbody>
</table>
Appendix C

Figure 1. Depression and Loneliness Screening