

Levels of Loneliness and Social Isolation Among Elderly People during the COVID-19 Pandemic

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Abstract—The purpose of this study is to assess social isolation and loneliness of older people. A descriptive quantitative design was utilized throughout this study to assess the prevalence of loneliness and social isolation in older people during this pandemic. Snowball sampling was utilized to select respondents in Tuguegarao City. There was a total of 378 respondents who participated in this study. Adopted questionnaires were used to collect data from respondents' namely; The Lubben Social Network Scale and the De Jong Gierveld Loneliness scale. This questionnaire was then distributed by the researchers via Google forms to respondents who fit the criteria. The results showed that majority of the respondents felt only moderately lonely (mean= 1.85), and majority had high social engagement (mean = 1.82). Moreover, loneliness was found to be negatively correlated with social engagement. Frequency count and the percentage were also used to determine the frequency of each of the levels of loneliness and social isolation. Pearson R was used to test for the relationship between the level of loneliness and social isolation. Moderate loneliness and high social engagement was most likely possible because of the respondents having the means to contact their families and friends through social media as most of the respondents of the study were contacted through the use of devices such as phones and computers. With the results of this study, it is seen that despite the onset of the COVID-19 pandemic, older adults were just feeling moderately lonely despite the claims of multiple studies that stated that they were feeling severe loneliness year after year and it is also demonstrated that despite the restrictions on gatherings, they still had high social engagement.

Keywords— *antibiotic use, antibiotic resistance, knowledge, attitudes, practices*

VI. INTRODUCTION

The world still continues to face a global threat from the Coronavirus disease 2019 (COVID-19) caused by the SARS-CoV-2 (Meo et. al, 2020). It is widely acknowledged that the severity of COVID-19 increases considerably with age. This is because frailty in older adults increases the risk of various infections and decreases all forms of immune response (Banerjee, 2020). Based on The Chinese Centre for Disease

Control and Prevention data, the mortality rate among 60–69 years old is around 3.6 percent, which increases to 18 percent above 80 years (Lai et al., 2020). Similar data had been reported from the worst affected countries like Iran, South Korea, Italy, Spain, and the United States (Rothan & Byrareddy, 2020). Moreover, the risk of developing a serious and often deadly disease may have a detrimental effect on the psychological functioning of the elderly (Mukhtar, 2019).

The World Health Organization recommended strict social isolation in lieu of controlling the spread of COVID-19, and this stricter protocol may result in loneliness and social isolation which is a known factor associated to health problems in the elderly people (Kasar & Karaman, 2021). Moreover, a cross-sectional study by Bu et al, (2020) reported high levels of loneliness during this pandemic which is still due to the strict protocol by WHO. It is stated in the study of Buenaventura et. al. (2020) that engagement and connectedness are very important for the elderly as this helps in the promotion of successful aging, but because of the strict social isolation protocol, these activities were directly impacted. Meanwhile, Santini et al. (2020) examined aspects of loneliness between the ages of 57–85 years by analyzing data from the USA National Social Life Health and Aging Project (NSHAP) wherein the results show that, due to the stricter protocol, social disconnectedness led to increased rates of social isolation which is perceived to be associated with higher rates of health problems for the elderly.

In this unprecedented event, developing countries such as the Philippines were not sufficiently equipped to manage a public health crisis. While elder Filipinos constitute less than 8% of the total population, they comprise one-third of all cases and more than half of all deaths related to COVID-19. This underscores what is widely known that older individuals are at a higher risk for COVID-19 with greater morbidity and mortality for the disease. Thus, stricter protocols are established for this age group (Buenaventura et al., 2020) as recommended by WHO. However, despite protocols being lifted as the Philippines transitions to acute pandemic response to sustained management. The geriatric population continues to experience the impact of the pandemic on their

mental health (Borelli, 2022). In the ongoing crisis, it is necessary to examine cases of social isolation and loneliness among elderly people who are still confined at home and isolated from social life as Armitage and Nellums (2020) mentioned that social isolation and loneliness of the elderly is a "serious public health concern" due to their biopsychosocial vulnerabilities and their dependence on family members or the support of community services.

Numerous studies have looked at each component independently. However, less attention has been paid to the effects when they are combined. This study aims to assess the levels social isolation and loneliness of the elderly, especially in a third-world country like the Philippines, which has undergone prolonged community quarantine and lockdown. This study may contribute to the knowledge of healthcare providers and government officials about the status of the elderly during the pandemic, as well as to develop a program to improve the quality of life of the elderly who are still experiencing loneliness and social isolation due to the pandemic.

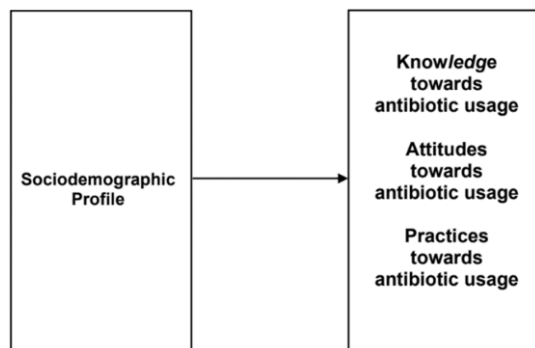


Fig. 2. Research Paradigm

The framework presents the underlying variables of the study. The independent variable consists of the sociodemographic profile of the respondents. The dependent variables consist of knowledge, attitudes, and practices towards antibiotic usage of the respondents that varies in terms of the profile variable. The arrow shows how the profile variables influence the knowledge, attitudes, and practices of mothers towards antibiotic use.

VII. METHODS

J. Research Design

A descriptive quantitative design was utilized throughout this study. Here, the researchers assessed the prevalence of loneliness and social isolation in older people during this pandemic.

K. Locale and Respondents

This study was conducted in Tuguegarao City Cagayan Valley since Tuguegarao is one of the places with the highest cases, thus having a higher level of restriction. The respondents of this study were older adults, in general, residing in Tuguegarao City Cagayan. The target respondents are those aged 65 to 90, those who don't suffer from chronic

illnesses and can hold conversations, and those who have the means to access the internet.

The data regarding the respondents were requested from the Office of the Senior Citizens. The office gave us the list of the total population count of senior citizens residing in Tuguegarao City as of 2021, which counts up to 21,705. From there, the researchers solved for the sample size by using a confidence level of 95% and a margin of error of 5%, giving us a total sample size of 378. The researchers utilized snowball sampling by selecting respondents and asking said respondents to point out other possible respondents.

TABLE I. DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Variables	Categories	Frequency (n=378)	Percentage
Sex	Male	220	58
	Female	158	42
Age	65-70	211	56
	71-76	119	31
	77-82	39	10
	83 and above	9	2
Civil Status	Married	250	66
	Single	39	10
	Widow	84	22
	Separated	5	1
Religion	Roman Catholic	359	95
	INC	7	2
	Methodist	5	1
	Born Again	7	2
Educational Attainment	Primary Education	15	4
	Secondary Education	122	32
	University	241	64
Source of Income	Have source of income	366	97
	None	12	3
Type of Family	Nuclear	108	29
	Single parent	22	6
	Extended	187	49
	Childless	61	16

Table II presents the personal profile of the respondents. The results show that majority are male elderly people than females who participated in the study. Most of the respondents are between the ages 65-70, while a few fall between the ages of 83 and above. The majority of the respondents are married. Most respondents are Roman Catholics. Most respondents have reached university in terms of educational attainment, while the few reached intermediate vocational training. Most of the respondents have social security as their source of income, while the fewest have assets. And most have an extended type of family while the fewest have a single parent type.

L. Instrument

This study utilized two questionnaires to collect the desired data from the respondents. The first questionnaire was composed of the; a) Personal profile, Sociodemographic profile, and health profile of the respondents, which we will modify by removing the "employment status" and adding religion, source of income, type of family, health-seeking behaviors, health history, and lifestyle related vices, and b) the adopted questionnaire from De Jong Gierveld and

colleagues during the 1980s. At the same time, the second questionnaire was composed of the Lubben Social Network scale adopted by James Lubben and colleagues.

The Lubben Social Network Scale is a Likert scale type of questionnaire which ranges from None (0) to Nine (9) or more. At the same time, the De Jong Gierveld Loneliness scale is also a Likert scale type of questionnaire ranging from None of the time to All of the time.

The Lubben Social Network Scale assesses social isolation in older adults by measuring the perceived social support they receive from their family and friends. In contrast, the De Jong Gierveld Loneliness scale measures the levels of loneliness of the respondents.

M. Data Analysis

The respondents' profile was analyzed using frequency and percentage. Frequency count and the percentage were also used to determine the frequency of each of the levels of loneliness and social isolation.

While the data from the De Jong Gierveld Loneliness scale questionnaire were totaled, ranging from 0 (not lonely) to 11 (very severe lonely). A score of 3 and above indicates that the respondent feels lonely. But if two or more of the items were not answered or if two or more of the items are missing, the total score will not be computed (van Tilburg & de Jong Gierveld, 1999).

TABLE II. QUALITATIVE INTERPRETATION FOR MEAN SCORE VALUES

Mean Score	Qualitative Interpretation
0-2	Not lonely
3-8	Moderate lonely
9-10	Severe lonely

The data from the Lubben Social Network Scale was totaled, with each question scored from 0 to 5, and the total score counting up from 0 to 30, with 30 being the highest indicating more social engagement, and a score of 12 and below indicating at risk for social isolation.

T-Test was used to test for the significant difference in the level of loneliness and sex, while Anova was used for the rest of the personal and health profile. The same tests were also used for the level of social isolation. Pearson R was used to test for the relationship between the level of loneliness and social isolation.

N. Ethical Considerations

Ethics Clearance from Region 2 Trauma and Medical Center- Institutional Review Board (R2TMC-IRB) was obtained prior to the implementation of the data collection procedure of this research to ensure that it is carried out in a responsible and ethically accountable manner.

VIII. RESULTS

TABLE III. LEVELS OF LONELINESS OF THE RESPONDENTS

Categories	Frequency (n=394)	Percentage
Not lonely	76	20%
Moderately lonely	284	75%
Severe lonely	15	4%
Very severe lonely	3	1%

Table III presents the level of loneliness of the respondents. The results show that most of the respondents feel moderately lonely and the fewest feel very severely lonely. This can be interpreted that most of the respondents still have connections to their friends or loved one's despite being alone in their house but still feel loneliness from time to time.

The primary purpose of this study was to determine the levels of social isolation and loneliness of older people who lived in Tuguegarao City during this pandemic. The results showed that 75% of the respondents felt moderate loneliness, and 82% had a high social engagement.

With the results showing moderate loneliness, this means that older people may still have social interactions but will still feel lonely from time to time. This study is backed up by the study of Chawla et al. (2021), which stated that more respondents felt moderate loneliness compared to a smaller portion that felt severe loneliness. Previous studies have found that symptoms of anxiety (Barnett et al., 2019) and depression (Cohen-Mansfield et al., 2016) are related to greater levels of loneliness. Similarly, poorer self-rated health has been associated with higher perceived loneliness among older adults (von Soest et al., 2018). Pinpointing health concerns that showed the highest links to loneliness during the COVID-19 pandemic will help identify individuals needing intervention. Moreover, multiple studies suggest that upon the pandemic's onset and continuation, greater loneliness levels in older people were reported to have increased over the years. (Wilson-Genderson et al., 2021; Ungar et al., 2022). The study's results contradict this statement since, despite the onset and continuity of the pandemic, older people only feel moderate loneliness.

TABLE IV. LEVELS OF SOCIAL ISOLATION OF THE RESPONDENTS

Categories	Frequency (n=394)	Percentage
Risk for Social Isolation	67	18%
High social engagement	311	82%

Table IV presents the level of social isolation of the respondents. The results show that more respondents have high social engagement compared to those at risk for social isolation. This can be interpreted as having the respondents feel at ease, and feel close with their families and friends as they still have contact with them.

Furthermore, the results showing high social engagement means that most of the respondents are considered to have marginal family ties and also marginal friendship ties, which indicates that they have contact, feel at ease, and feel close with their family members and friends. It is similar to the

study of Casey et al (2020), which states that older adults who take care of family members, volunteer in their community, and engage with family and friends protect them against the risk of social isolation and disconnectedness. Meanwhile, the study of Wu (2020) contradicts the result of this study. Their study stated that the onset of the COVID-19 pandemic led to the increase of older adults who became socially isolated at the issuance of stay-at home orders and banned visitations as they were conditioned to participate in social activities actively. It also contradicts the study of Ungar et al. (2022) as they stated that there is an increase in the risk of social isolation for older adults that stems from the physical isolation and limited access and comfort brought by the pandemic.

Moderate loneliness and high social engagement were most likely possible because of the respondents having the means to contact their families and friends through social media as most of the respondents of the study were contacted through the use of devices such as phones and computers. The study of Barnett et al, (2022) is consistent with this result as they stated that elderly people only had moderate level of loneliness because of the utilization of social media connections with their families. The results are also consistent with the study of Castillo et. al. (2023) in which they stated that the use of technology helped elderly people maintain productivity which leads to the avoidance of feelings of loneliness. Furthermore, Berger et. al. (2021) stated that social isolation is reduced with the help of communication technology which helps them stay engaged with their family and friends thus, resulting in higher social engagement.

TABLE V. RELATIONSHIP BETWEEN THE LEVEL OF LONELINESS AND SOCIAL ISOLATION

R-value	p-value	Decision
-0.2821115	0.00001	Reject Ho

Table V demonstrates that there is a significant relationship between levels of loneliness and social isolation. Since the p-value is less than the critical value of 0.05, this signifies that the levels of loneliness influence social isolation. The R-value of -0.2821115 indicates a negative relationship: as levels of loneliness increase, social isolation tends to decrease, and vice versa.

The study suggests a negative relationship: as levels of loneliness increase, social isolation tends to decrease, and vice versa. No additional studies were found to support these results. However, a study by Banerjee (2020) suggests that social isolation leads to chronic loneliness. These variables have a relationship that positively affects each other. Moreover, a study by Holt-Lunstad et al. (2015) states that socially isolated persons are not necessarily lonely, and lonely persons are not necessarily socially isolated, suggesting that the two variables may have no relationship with each other and contradicting the aforementioned results.

IX. CONCLUSION

With the results of this study, it is seen that despite the onset of the COVID-19 pandemic, older adults were just

feeling moderately lonely despite the claims of multiple studies that stated that they were feeling severe loneliness. It is also demonstrated that despite the restrictions on gatherings, older people have a high social engagement which indicates that they have contact, feel at ease, and feel close with at least three to nine or maybe even more of their family members and friends. Moderate loneliness and high social engagement were made possible because most of the respondents have the means to contact their families and friends through the use of communication technologies like phones and computers, and the use of social media. Moreover, a negative relationship was observed between levels of social isolation and loneliness, which suggests that the higher extent of loneliness, the lower levels of social isolation and vice versa.

X. RECOMMENDATIONS

The majority still felt moderately lonely, and loneliness is known to be associated with adverse outcomes. The local government units or the Office of Senior Citizens Affairs can use this to devise programs and activities targeting senior citizens who still feel lonely or isolated or have manifested chronic symptoms of these emotions.

Moreover, the researchers also recommend further research to gather data about steps to combat loneliness. Future researchers can also conduct a qualitative approach to loneliness and isolation to capture the case-to-case basis of these circumstances.

Furthermore, this study is limited to only loneliness and social isolation during this pandemic; thus, it is recommended to conduct further research to know other factors that may affect the elderly. It is also recommended that data gathering be done face to face to help the respondents answer the questionnaire.

Lastly, this study is limited to respondents who had assistance in answering the questionnaire, thus leading to less assurance in the confidentiality and authenticity of their answers.

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