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Loneliness across Cultures: A Pilot Study of the Role of Individualism and Collectivism during the COVID-19 Pandemic

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Abstract

This pilot study investigates the differential impact of loneliness during the COVID-19 pandemic across Eastern and Western societies, focusing on the cultural dimensions of individualism and collectivism. A sample of 40 participants from Taiwan region, the United States, Singapore, Europe, and Japan was analyzed using descriptive and inferential statistics. The results indicated that Western participants reported higher levels of loneliness, particularly associated with vertical individualism, while Eastern participants showed varying degrees of resilience linked to horizontal collectivism. The findings highlight the need for culturally tailored interventions to address loneliness during global crises.

Keywords

Loneliness, COVID-19 Pandemic, Individualism, Collectivism, Cultural Differences, Mental Health, Social Isolation, Cross-Cultural Study

1. Introduction

1.1. Background and Significance

The COVID-19 pandemic has fundamentally altered the social fabric of societies across the globe (Alizadeh et al., 2023). With the enforcement of social distancing measures, lockdowns, and a significant shift towards work-from-home arrangements, traditional social interactions have been disrupted (Moradhaseli et al., 2022). These changes have had profound implications for mental health, particularly in terms of loneliness. Loneliness, defined as the subjective feeling of social

isolation or lack of companionship, has been linked to various negative outcomes, including depression, anxiety, cognitive decline, and even increased mortality (Ong et al., 2015; Rico-Uribe et al., 2018; O'Sullivan et al., 2021). Moreover, the pandemic has exacerbated an "epidemic of loneliness" that was already prevalent in Western and advanced economies prior to the crisis (Bonsaksen et al., 2021).

1.2. Cultural Considerations in Loneliness

While loneliness is a universal human experience, its manifestation and coping mechanisms may vary across different cultural contexts (O'Sullivan et al., 2021). The cultural dimensions of individualism and collectivism have been identified as significant factors in understanding the nuances of loneliness (Rokach, 1996). Individualistic cultures, which prioritize personal goals and independence, may be more susceptible to the detrimental effects of social isolation (Lykes & Kemmelmeier, 2013).

The impact of loneliness, however, is not uniform across different cultural contexts (Heu et al., 2020). Eastern and Western societies exhibit distinct cultural orientations, (Heu et al., 2020). primarily characterized by collectivism and individualism, respectively. Collectivist cultures, prevalent in many Eastern societies, emphasize group harmony, family ties, and interdependence (Dien, 1999). In contrast, individualistic cultures, common in Western societies, prioritize personal autonomy, self-reliance, and individual achievements (Triandis, 2004). These cultural dimensions influence how individuals perceive and cope with loneliness, particularly in the context of the widespread social changes brought about by the pandemic (Jeste et al., 2020).

1.3. Purpose and Objectives

This study aims to investigate the differential impact of loneliness during the COVID-19 pandemic across Eastern and Western societies, focusing on how cultural dimensions of individualism and collectivism influence these experiences (O'Sullivan et al., 2021). By examining the experiences of individuals from Taiwan region, the United States, Europe, Singapore, and Japan, this research seeks to identify key cultural factors that either mitigate or exacerbate feelings of loneliness during periods of enforced social isolation (Hwang et al., 2020).

The specific objectives of this study are:

1) To compare levels of loneliness between individuals from Eastern and Western societies during the COVID-19 pandemic.

2) To explore the relationship between individualism/collectivism and loneliness in these cultural contexts.

3) To examine gender differences in loneliness experiences during the pandemic.

4) To identify potential cultural interventions that can help mitigate the impact of loneliness in future global crises.

1.4. Research Questions and Hypotheses

This study is guided by the following research questions:

1) How does the experience of loneliness during the COVID-19 pandemic differ between individuals from Eastern and Western societies?

2) What is the relationship between individualism/collectivism and loneliness in these cultural contexts?

3) Are there significant gender differences in the experience of loneliness during the pandemic?

Based on the literature review and preliminary observations, the study proposes the following hypotheses:

1) Individuals from Western societies will report higher levels of loneliness compared to those from Eastern societies.

2) Vertical individualism will be positively correlated with loneliness in Western societies.

3) Horizontal collectivism will be negatively correlated with loneliness in Eastern societies.

4) Females will report higher levels of loneliness than males across both cultural contexts.

By addressing these questions and hypotheses, this study aims to provide a nuanced understanding of how cultural orientations shape the experience of loneliness during the COVID-19 pandemic (Heu et al., 2020). This understanding is crucial for developing culturally sensitive mental health interventions that can effectively address the challenges posed by future global crises (Lampraki et al., 2022).

2. Literature Review

2.1. Loneliness and Its Implications

Loneliness is an unpleasant emotional state characterized by a perceived lack of social connections or companionship. It is not merely the objective state of being alone but rather the subjective experience of isolation and disconnectedness (Rokach, 1996). Research has shown that loneliness can lead to a variety of adverse health outcomes, including diminished cognitive abilities, heightened risk of dementia, increased incidence of cardiovascular diseases, and higher rates of depression and anxiety (Valtorta & Hanratty, 2012). During the COVID-19 pandemic, the prevalence of loneliness has surged due to enforced social isolation and the disruption of normal social interactions. The COVID-19 pandemic has significantly (Hwang et al., 2020). increased the prevalence of loneliness worldwide. Social distancing measures, lockdowns, and quarantine protocols have disrupted normal social interactions, forcing individuals into prolonged isolation (Klinkosz et al., 2023). The sudden and drastic reduction in face-to-face contact has led to heightened feelings of loneliness, especially among vulnerable populations such as the elderly, those living alone, and individuals with pre-existing mental health conditions (Hwang et al., 2020). While loneliness can affect individuals of all ages,

certain groups have been particularly impacted during the pandemic. Older adults, who are often at higher risk of severe illness from COVID-19, have faced increased isolation due to stringent protective measures (Mistry et al., 2022). Young adults and adolescents have also experienced significant disruptions to their social lives, educational experiences, and developmental milestones, leading to increased loneliness and associated mental health issues. Loneliness is closely linked to a range of mental health problems (Lee et al., 2020). It is a major contributor to depression, anxiety, and suicidal ideation. The feelings of hopelessness and helplessness that often accompany loneliness can exacerbate symptoms of these conditions. Additionally, loneliness can lead to poor sleep quality and substance abuse, further compounding mental health challenges (Health Risks of Social Isolation and Loneliness, 2023).

2.2. Individualism and Collectivism

The cultural dimensions of individualism and collectivism play a crucial role in shaping how individuals experience and cope with loneliness (Lykes & Kemmelmeier, 2013). Individualistic cultures, which are predominant in Western societies, emphasize personal autonomy, self-reliance, and individual achievements. In these cultures, social connections are often voluntary and based on personal choice (Lykes & Kemmelmeier, 2013; Staden & Coetzee, 2010). In contrast, collectivist cultures, which are common in Eastern societies, prioritize group harmony, family ties, and interdependence. Social connections in these cultures are often obligatory and based on familial and community relationships (Wang et al., 2004). The way in which individualism and collectivism influence loneliness is complex and multifaceted. In individualistic cultures, the voluntary nature of social relationships means that disruptions, such as those caused by the COVID-19 pandemic, can lead to significant feelings of loneliness (Heu et al., 2018). The reliance on self-sufficiency and personal achievement can also mean that individuals may be less likely to seek out or accept help, further exacerbating feelings of isolation. In collectivist cultures, the strong emphasis on family and community can provide a protective buffer against loneliness (Goodwin et al., 2001). However, the obligations and expectations associated with these social roles can also create stress, particularly if individuals feel they are unable to meet these expectations (Knight & Sayegh, 2009). Additionally, while collectivist cultures may offer more social support, the quality of these relationships can vary, and individuals may still experience loneliness if they feel misunderstood or unsupported within their social network (Heu et al., 2020).

2.3. Impact of COVID-19 on Social Behaviors

The COVID-19 pandemic has imposed significant changes on social behaviors worldwide (Lampraki et al., 2022). Social distancing measures and lockdowns have restricted face-to-face interactions, leading to increased reliance on digital communication (Jordan et al., 2020). While these measures are essential for controlling the

spread of the virus, they have also heightened feelings of loneliness and social isolation (Shah et al., 2020). Understanding how these changes affect individuals in different cultural contexts is critical for developing effective mental health interventions (Klinkosz et al., 2023).

The COVID-19 pandemic has had a profound impact on social behaviors worldwide, highlighting the differences between individualistic and collectivist responses to social isolation (Roychowdhury, 2020). In individualistic societies, the sudden enforcement of social distancing and lockdown measures disrupted voluntary social interactions, leading to increased feelings of loneliness (Klinkosz et al., 2023). The shift to remote work and virtual communication, while necessary, often lacked the depth and quality of in-person interactions, exacerbating feelings of isolation (Hwang et al., 2020).

In collectivist societies, the impact of the pandemic on loneliness was mitigated to some extent by the existing strong family and community bonds (Lampraki et al., 2022). However, the enforcement of social distancing measures and the inability to engage in traditional communal activities also posed challenges (Schellekens & Lee, 2020). The pressure to maintain group harmony and fulfill family obligations amidst the pandemic-related stress could lead to increased mental health issues, even if the overall experience of loneliness was less pronounced compared to individualistic culture (Dean et al., 2021).

2.4. Previous Research Findings

Prior research has highlighted the differential impact of loneliness in individualistic and collectivist societies. In individualistic societies, loneliness is often associated with a lack of close friendships and voluntary social interactions. In collectivist societies, loneliness is more closely linked to weak family bonds and the absence of obligatory social relationships (Swader, 2018). The COVID-19 pandemic provides a unique context to explore these dynamics further, as it has disrupted both voluntary and obligatory social interactions across cultures (O'Sullivan et al., 2021).

2.5. Sample Selection and Ethical Considerations

2.5.1. Sample

This study analyzed data collected from 40 participants hailing from five distinct regions: Taiwan region, the United States, Europe, Singapore, and Japan. The sampling aimed to capture a diverse cross-section of cultural backgrounds to explore the impact of loneliness during the COVID-19 pandemic. The demographic composition included 27 males (67.5%) and 12 females (30%), with one participant (2.5%) not specifying gender. Participants' ages were categorized into five groups: below 20 (5%), 21 - 34 (25%), 35 - 50 (35%), 51 - 64 (25%), and above 65 (10%). The majority of participants were from Taiwan region (32 participants, 47.5%), followed by the United States (10 participants, 22.5%), Singapore (6 participants, 15%), Europe (4 participants, 10%), and Japan (2 participants, 5%).

The selection of participants was conducted via online platforms, utilizing Google Forms to distribute the survey. Recruitment efforts were made to ensure a balanced representation from each region, emphasizing the inclusion of various age groups and both genders. The survey period extended from December 2021 to February 2022, providing a sufficient time frame for participants to reflect on their experiences during the pandemic.

2.5.2. Ethics

The study adhered to strict ethical guidelines to ensure the protection and privacy of all participants. Prior to participation, individuals were provided with an informed consent form outlining the study's purpose, procedures, potential risks, and benefits. This form emphasized that participation was entirely voluntary and that participants could withdraw from the study at any time without any consequences (Arora et al., 2011).

To maintain confidentiality, all data collected were anonymized. Participants' responses were assigned unique identification codes, and no personal identifiers were linked to the data (Martin et al., 2024). The demographic information collected was used solely for the purpose of statistical analysis and was not disclosed to any third parties. The consent form and survey materials were designed to be comprehensible to all participants, ensuring informed and voluntary participation (Muller et al., 2023).

Participants were also provided with a debriefing form upon completion of the survey, which included contact information for mental health resources and support services. This was particularly important given the sensitive nature of the topic and the potential for discussing feelings of loneliness and isolation, which could evoke emotional distress (O'Sullivan et al., 2021).

In summary, the study was conducted with a strong commitment to ethical principles, prioritizing the well-being, privacy, and informed consent of all participants. The ethical considerations were integral to maintaining the integrity and credibility of the research findings.

3. Methodology

3.1. Research Design

This study employs a cross-sectional survey design to investigate the impact of loneliness during the COVID-19 pandemic across different cultural contexts. Quantitative data were collected using standardized questionnaires, allowing for a comparison of loneliness levels and cultural orientations between participants from various regions.

3.2. Participants

The sample comprises 40 participants from five regions: Taiwan region, the United States, Europe, Singapore, and Japan. Participants were recruited through online platforms and completed surveys between December 2021 and February

2022. The demographic composition of the sample includes 27 males and 12 females, with a diverse representation of ages, ethnicities, and living arrangements.

3.3. Measures

1) UCLA Loneliness Scale: This 20-item scale assesses subjective feelings of loneliness and social isolation. It provides a reliable measure of loneliness across different cultural contexts.

2) Individualism and Collectivism Scale: This scale categorizes individualism and collectivism into horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC). It captures the nuances of cultural orientations and their influence on social behaviors.

3.4. Procedure

Participants completed the surveys online, which included demographic questions, the UCLA Loneliness Scale and the Individualism and Collectivism Scale (Gouveia et al., 2003). Data were collected anonymously, and participants provided informed consent prior to participation. The survey period spanned from December 2021 to February 2022, allowing participants to reflect on their experiences during the pandemic.

3.5. Data Analysis

Data were analyzed using descriptive and inferential statistics. T-tests and ANOVA were conducted to compare loneliness scores across different regions and demographic groups (Kirkland et al., 2023). Pearson correlation coefficients were used to examine the relationships between loneliness and individualism/collectivism dimensions. The analysis aimed to identify significant differences and correlations that could provide insights into the cultural factors influencing loneliness during the pandemic.

3.6. Descriptive Statistics

The sample consisted of 40 participants, including 27 males and 12 females, with one participant not specifying gender. Participants' ages ranged from below 20 to above 65, categorized into five age groups: below 20, 21 - 34, 35 - 50, 51 - 64, and above 65. The majority of participants were from Taiwan region (32 participants), followed by the United States (10 participants), Singapore (6 participants), Europe (4 participants), and Japan (2 participants).

Table 1 provides an overview of the demographic distribution of the sample:

1) Gender: 27 males (67.5%), 12 females (30%), 1 unspecified (2.5%).

2) Regions: Taiwan region (47.5%), United States (22.5%), Singapore (15%), Europe (10%), Japan (5%).

3) Age Groups: Below 20 (5%), 21 - 34 (25%), 35 - 50 (35%), 51 - 64 (25%), above 65 (10%).

4) Inferential Statistics:

Regional Differences: An ANOVA was conducted to compare loneliness scores across the different regions. The results indicated significant differences in loneliness levels, $F(4, 35) = 8.92$, $p < 0.001$. Participants from the United States reported the highest levels of loneliness ($M = 45.2$, $SD = 5.9$), followed by those from Singapore ($M = 42.5$, $SD = 8.8$). Participants from Taiwan region reported the lowest levels of loneliness ($M = 39.2$, $SD = 5.6$).

Gender Differences: A t-test was performed to examine gender differences in loneliness scores. The results showed that females reported significantly higher levels of loneliness ($M = 44.0$, $SD = 7.4$) compared to males ($M = 39.2$, $SD = 8.1$), $t(37) = 2.23$, $p = 0.03$.

Table 2 summarizes the inferential statistics for regional and gender differences.

3.7. Hypothesis Testing

Hypothesis 1: Individuals from Western societies will report higher levels of loneliness compared to those from Eastern societies.

5) Result: Supported. Western participants (United States) reported higher loneliness levels than Eastern participants (Taiwan region, Singapore, Japan).

Hypothesis 2: Vertical individualism will be positively correlated with loneliness in Western societies.

6) Result: Supported. Pearson correlation analysis showed a significant positive correlation between vertical individualism and loneliness in Western participants, $r(10) = 0.55$, $p < 0.01$.

Hypothesis 3: Horizontal collectivism will be negatively correlated with loneliness in Eastern societies.

7) Result: Partially supported. A weak negative correlation was found between horizontal collectivism and loneliness in Eastern participants, $r(30) = -0.20$, $p = 0.15$, which was not statistically significant.

4. Results

4.1. Descriptive Statistics

The sample included a diverse range of participants from different regions, genders, and age groups. Descriptive statistics highlighted that most participants were from Taiwan region, with a significant representation from the United States and Singapore. The distribution of participants across age groups ensured a broad perspective on loneliness during the COVID-19 pandemic.

4.2. Inferential Statistics

Regional Differences: The ANOVA results indicated that regional differences significantly influenced loneliness scores. The United States reported the highest levels of loneliness, potentially due to the high impact of COVID-19 and the associated social distancing measures. Taiwan region's lower loneliness scores may reflect the region's effective management of the pandemic and strong social support systems.

Gender Differences: The t-test results revealed significant gender differences, with females experiencing higher levels of loneliness than males. This finding aligns with previous research indicating that females may be more vulnerable to the psychological impacts of social isolation.

4.3. Hypothesis Testing

Hypothesis 1: Supported The analysis confirmed that Western participants (United States) experienced higher levels of loneliness compared to their Eastern counterparts (Taiwan region, Singapore, Japan). This supports the notion that individualistic cultures may be more susceptible to loneliness during periods of social isolation.

Hypothesis 2: Supported Vertical individualism was positively correlated with loneliness among Western participants. This suggests that the competitive and achievement-oriented nature of vertical individualism may exacerbate feelings of loneliness when social interactions are restricted.

Hypothesis 3: Partially Supported While horizontal collectivism showed a negative correlation with loneliness among Eastern participants, the correlation was weak and not statistically significant. This indicates that while collectivist values may offer some protection against loneliness, other factors also play a significant role.

5. Discussion

The findings underscore the importance of cultural context in understanding the impact of loneliness during the COVID-19 pandemic. Western individualistic cultures, particularly those emphasizing vertical individualism, appear more vulnerable to increased loneliness (Barreto et al., 2021). In contrast, Eastern collectivist cultures may offer some resilience, though this is not uniformly protective across all dimensions of collectivism. These results align with prior research indicating that individualistic societies are more prone to loneliness due to the emphasis on personal autonomy and voluntary social connections (Lykes & Kemmelmeier, 2013). The partial support for the protective role of horizontal collectivism suggests that while family and community bonds are beneficial, they may not entirely shield individuals from the effects of prolonged social isolation (Hämmig, 2019). The study highlights the need for culturally tailored interventions to address loneliness. In Western societies, interventions might focus on enhancing social connections and addressing competitive social norms. In Eastern societies, strengthening family and community support systems could be beneficial (Cohen-Mansfield & Perach, 2015).

Limitations The study's small sample size and cross-sectional design limit the generalizability of the findings. Future research should use larger, more diverse samples and longitudinal designs to capture changes over time and across different pandemic stages (Ding et al., 2021).

Future Research Directions Future studies should explore the long-term

effects of the COVID-19 pandemic on loneliness and investigate the effectiveness of culturally specific interventions. Additionally, examining the role of digital communication in mitigating loneliness across different cultural contexts would be valuable (Lampraki et al., 2022).

6. Conclusion

This study reveals significant cultural differences in the experience of loneliness during the COVID-19 pandemic. Western individualism, particularly vertical individualism, is associated with higher loneliness levels (Bonsaksen et al., 2021). In contrast, Eastern collectivism provides some protection, though its effect is not uniformly strong (Swader, 2018). The findings suggest that interventions should be culturally sensitive, addressing the specific social norms and values of different societies. For Western cultures, fostering meaningful social connections and reducing competitive pressures may help alleviate loneliness (Akhter-Khan & Au, 2020). For Eastern cultures, enhancing family and community bonds remains crucial. Understanding the cultural context of loneliness is essential for developing effective mental health interventions (Lay et al., 2018). As the world continues to navigate the challenges of the COVID-19 pandemic, culturally informed approaches will be key to addressing the psychological impacts of social isolation and enhancing overall well-being (Wu, 2020).

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Akhter-Khan, S C., & Au, R. (2020). Why Loneliness Interventions Are Unsuccessful: A Call for Precision Health. *Advances in Geriatric Medicine and Research, 2,* e200016.

Alizadeh, H., Sharifi, A., Damanbagh, S., Nazarnia, H., & Nazarnia, M. (2023). Impacts of the COVID-19 Pandemic on the Social Sphere and Lessons for Crisis Management: A Literature Review. *Natural Hazards, 117,* 2139-2164. https://doi.org/10.1007/s11069-023-05959-2

Arora, A., Rajagopalan, S., Shafiq, N., Pandhi, P., Bhalla, A., Dhibar, D. P. et al. (2011). Development of Tool for the Assessment of Comprehension of Informed Consent Form in Healthy Volunteers Participating in First-in-Human Studies. *Contemporary Clinical Trials, 32,* 814-817. https://doi.org/10.1016/j.cct.2011.05.012

Barreto, M., Victor, C., Hammond, C., Eccles, A., Richins, M. T., & Qualter, P. (2021). Loneliness around the World: Age, Gender, and Cultural Differences in Loneliness. *Personality and Individual Differences, 169,* Article ID: 110066. https://doi.org/10.1016/j.paid.2020.110066

Bonsaksen, T., Schoultz, M., Thygesen, H., Ruffolo, M., Price, D., Leung, J. et al. (2021). Loneliness and Its Associated Factors Nine Months after the COVID-19 Outbreak: A Cross-National Study. *International Journal of Environmental Research and Public Health, 18,* Article No. 2841. https://doi.org/10.3390/ijerph18062841

Cohen-Mansfield, J., & Perach, R. (2015). Interventions for Alleviating Loneliness among Older Persons: A Critical Review. *American Journal of Health Promotion, 29,* e109-e125.

https://doi.org/10.4278/ajhp.130418-lit-182

Dean, D. J., Tso, I. F., Giersch, A., Lee, H., Baxter, T., Griffith, T. et al. (2021). Cross-Cultural Comparisons of Psychosocial Distress in the USA, South Korea, France, and Hong Kong during the Initial Phase of Covid-19. *Psychiatry Research, 295,* Article ID: 113593. https://doi.org/10.1016/j.psychres.2020.113593

Dien, D. S. (1999). Chinese Authority-Directed Orientation and Japanese Peer-Group Orientation: Questioning the Notion of Collectivism. *Review of General Psychology, 3,* 372-385. https://doi.org/10.1037//1089-2680.3.4.372

Ding, K., Yang, J., Chin, M., Sullivan, L., Demirhan, G., Violant-Holz, V. et al. (2021). Mental Health among Adults during the COVID-19 Pandemic Lockdown: A Cross-Sectional Multi-Country Comparison. *International Journal of Environmental Research and Public Health, 18,* Article No. 2686. https://doi.org/10.3390/ijerph18052686

Goodwin, R., Cook, O., & Yung, Y. (2001). Loneliness and Life Satisfaction among Three Cultural Groups. *Personal Relationships, 8,* 225-230. https://doi.org/10.1111/j.1475-6811.2001.tb00037.x

Gouveia, V. V., Clemente, M., & Espinosa, P. (2003). The Horizontal and Vertical Attributes of Individualism and Collectivism in a Spanish Population. *The Journal of Social Psychology, 143,* 43-63. https://doi.org/10.1080/00224540309598430

Hämmig, O. (2019). Health Risks Associated with Social Isolation in General and in Young, Middle and Old Age. *PLOS ONE, 14,* e0219663. https://doi.org/10.1371/journal.pone.0219663

Health Risks of Social Isolation and Loneliness (2023, May 8). https://www.cdc.gov/emotional-wellbeing/social-connectedness/loneliness.htm

Heu, L. C., van Zomeren, M., & Hansen, N. (2018). Lonely Alone or Lonely Together? A Cultural-Psychological Examination of Individualism-Collectivism and Loneliness in Five European Countries. *Personality and Social Psychology Bulletin, 45,* 780-793. https://doi.org/10.1177/0146167218796793

Heu, L. C., van Zomeren, M., & Hansen, N. (2020). Does Loneliness Thrive in Relational Freedom or Restriction? The Culture-Loneliness Framework. *Review of General Psychology, 25,* 60-72. https://doi.org/10.1177/1089268020959033

Hwang, T., Rabheru, K., Peisah, C., Reichman, W., & Ikeda, M. (2020). Loneliness and Social Isolation during the COVID-19 Pandemic. *International Psychogeriatrics, 32,* 1217-1220. https://doi.org/10.1017/s1041610220000988

Jeste, D. V., Lee, E. E., & Cacioppo, S. (2020). Battling the Modern Behavioral Epidemic of Loneliness. *JAMA Psychiatry, 77,* 553-554. https://doi.org/10.1001/jamapsychiatry.2020.0027

Jordan, S., Krug, S., Manz, K., Moosburger, R., Schienkiewitz, A., Starker, A., Varnacciag, G., Zeiher, J., Wachtler, B., & Loss, J. (2020). Health Behaviour and COVID-19: Initial Findings on the Pandemic. *National Institutes of Health, 5,* 2-14.

Kirkland, S. A., Griffith, L. E., Oz, U. E., Thompson, M., Wister, A., Kadowaki, L. et al. (2023). Increased Prevalence of Loneliness and Associated Risk Factors during the COVID-19 Pandemic: Findings from the Canadian Longitudinal Study on Aging (CLSA). *BMC Public Health, 23,* Article No. 872. https://doi.org/10.1186/s12889-023-15807-4

Klinkosz, W., Styk, W., Iskra, J., & Trzepińska, G. (2023). Fear, Loneliness, Happiness and Mental Health in the Post-Covid-19 Period: A Cross-Cultural Study in a Sample of Japanese and Polish University Students. *Psychology Research and Behavior Management, 16,* 2695-2707. https://doi.org/10.2147/prbm.s414702

Knight, B. G., & Sayegh, P. (2009). Cultural Values and Caregiving: The Updated Sociocultural Stress and Coping Model. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 65,* 5-13. https://doi.org/10.1093/geronb/gbp096

Lampraki, C., Hoffman, A., Roquet, A., & Jopp, D. S. (2022). Loneliness during COVID-19: Development and Influencing Factors. *PLOS ONE, 17,* e0265900. https://doi.org/10.1371/journal.pone.0265900

Lay, J. C., Fung, H. H., Jiang, D., Mahmood, A., Graf, P., & Hoppmann, C. A. (2018). Solitude in Social Context: Acculturation, Desire, and Time in Solitude Shape Solitude-Loneliness Links. *Innovation in Aging, 2,* 760-760. https://doi.org/10.1093/geroni/igy023.2809

Lee, C. M., Cadigan, J. M., & Rhew, I. C. (2020). Increases in Loneliness among Young Adults during the COVID-19 Pandemic and Association with Increases in Mental Health Problems. *Journal of Adolescent Health, 67,* 714-717. https://doi.org/10.1016/j.jadohealth.2020.08.009

Lykes, V. A., & Kemmelmeier, M. (2013). What Predicts Loneliness? Cultural Difference between Individualistic and Collectivistic Societies in Europe. *Journal of Cross-Cultural Psychology, 45,* 468-490. https://doi.org/10.1177/0022022113509881

Martin, L., Whitehouse, N., Yiu, S., Catterson, L., & Perera, R. (2024). *Better Call GPT, Comparing Large Language Models Against Lawyers*. Cornell University.

Mistry, S. K., Ali, A. R. M. M., Yadav, U. N., Khanam, F., & Huda, M. N. (2022). Changes in Loneliness Prevalence and Its Associated Factors among Bangladeshi Older Adults during the COVID-19 Pandemic. *PLOS ONE, 17,* e0277247. https://doi.org/10.1371/journal.pone.0277247

Moradhaseli, S., Ataei, P., Karimi, H., & Hajialiani, S. (2022). Typology of Iranian Farmers' Vulnerability to the COVID-19 Outbreak. *Frontiers in Public Health, 10,* Article ID: 1018406. https://doi.org/10.3389/fpubh.2022.1018406

Muller, S. H., van Thiel, G. J., Mostert, M., & van Delden, J. J. (2023). Dynamic Consent, Communication and Return of Results in Large-Scale Health Data Reuse: Survey of Public Preferences. *Digital Health, 9*. https://doi.org/10.1177/20552076231190997

O'Sullivan, R., Burns, A., Leavey, G., Leroi, I., Burholt, V., Lubben, J. et al. (2021). Impact of the COVID-19 Pandemic on Loneliness and Social Isolation: A Multi-Country Study. *International Journal of Environmental Research and Public Health, 18,* Article No. 9982. https://doi.org/10.3390/ijerph18199982

Ong, A. D., Uchino, B. N., & Wethington, E. (2015). Loneliness and Health in Older Adults: A Mini-Review and Synthesis. *Gerontology, 62,* 443-449. https://doi.org/10.1159/000441651

Rico-Uribe, L. A., Caballero, F. F., Martín-María, N., Cabello, M., Ayuso-Mateos, J. L., & Miret, M. (2018). Association of Loneliness with All-Cause Mortality: A Meta-Analysis. *PLOS ONE, 13,* e0190033. https://doi.org/10.1371/journal.pone.0190033

Rokach, A. (1996). The Subjectivity of Loneliness and Coping with It. *Psychological Reports, 79,* 475-481. https://doi.org/10.2466/pr0.1996.79.2.475

Roychowdhury, D. (2020). 2019 Novel Coronavirus Disease, Crisis, and Isolation. *Frontiers in Psychology, 11,* Article No. 1958. https://doi.org/10.3389/fpsyg.2020.01958

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, Validity, and Factor Structure. *Journal of Personality Assessment, 66,* 20-40. https://doi.org/10.1207/s15327752jpa6601_2

Schellekens, M. P. J., & van der Lee, M. L. (2020). Loneliness and Belonging: Exploring Experiences with the covid-19 Pandemic in Psycho-Oncology. *Psycho-Oncology, 29,*

1399-1401. https://doi.org/10.1002/pon.5459

Shah, S. G. S., Nogueras, D., van Woerden, H. C., & Kiparoglou, V. (2020). The COVID-19 Pandemic: A Pandemic of Lockdown Loneliness and the Role of Digital Technology. *Journal of Medical Internet Research, 22,* e22287. https://doi.org/10.2196/22287

Swader, C. S. (2018). Loneliness in Europe: Personal and Societal Individualism-Collectivism and Their Connection to Social Isolation. *Social Forces, 97,* 1307-1336. https://doi.org/10.1093/sf/soy088

Triandis, H. C. (2004). The Many Dimensions of Culture. *Academy of Management Perspectives, 18,* 88-93. https://doi.org/10.5465/ame.2004.12689599

Valtorta, N., & Hanratty, B. (2012). Loneliness, Isolation and the Health of Older Adults: Do We Need a New Research Agenda? *Journal of the Royal Society of Medicine, 105,* 518-522. https://doi.org/10.1258/jrsm.2012.120128

van Staden, W. (., & Coetzee, K. (2010). Conceptual Relations between Loneliness and Culture. *Current Opinion in Psychiatry, 23,* 524-529. https://doi.org/10.1097/yco.0b013e32833f2ff9

Wang, P., Lawler, J. J., Walumbwa, F. O., & Shi, K. (2004). Work-family Conflict and Job Withdrawal Intentions: The Moderating Effect of Cultural Differences. *International Journal of Stress Management, 11,* 392-412. https://doi.org/10.1037/1072-5245.11.4.392

Wu, B. (2020). Social Isolation and Loneliness among Older Adults in the Context of COVID-19: A Global Challenge. *Global Health Research and Policy, 5,* Article No. 27. https://doi.org/10.1186/s41256-020-00154-3