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Defying Loneliness: A Phenomenological Study of Older Adults' Participation in an Online-Based Photovoice Group During COVID-19

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This study investigates the perceptions and interpretations of loneliness-related issues among older adults enrolled in an online photovoice group intervention program. It specifically examines their engagement with group activities conducted through the Zoom platform and the diverse experiences they acquired through their involvement in the group. In a qualitative-phenomenological study involving 22 older adult participants, data were collected via semistructured, in-depth interviews and subsequently analyzed through content analysis. Three major themes emerged from the data analysis: (1) the supportive dimension—the social support element of belonging to a group, the group as a safe place; (2) the values dimension—values of relational rather than aesthetic artistic expression, values of voice expression; and (3) the dimension of opening new opportunities—photographs as enhancing and enriching group communication, as well as Zoom enabling closeness, and relationships that continued after the program. The Zoom-based photovoice intervention emerged as an exceptionally accessible and cost-efficient method for mitigating loneliness, even with the challenges of managing digital communication. This study reveals the crucial necessity of offering comprehensive support concerning the utilization of the Zoom platform for the older adult population. The findings of this study propose a promising accessible framework for future interventions to reduce loneliness among older adults amidst crises as well as during normal conditions.


Public Policy Relevance Statement

The COVID-19 pandemic exacerbated loneliness among older adults, presenting a critical public health challenge. Our findings demonstrate the efficacy of a Zoom-based photovoice intervention in mitigating social isolation. The program generated sustainable social connections, extending beyond the intervention period. This evidence-based model offers administrators and policymakers a viable framework for implementing targeted online interventions to support older adult populations during both routine and crisis scenarios.

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Loneliness is a significant public health concern for older adults, and recent research has focused on various contexts, including the COVID-19 pandemic, different countries, living arrangements, health outcomes, and other factors. A systematic review by Su et al. (2023) found that loneliness had a prevalence of 28.6% during the COVID-19 pandemic. Tapia-Muñoz et al. (2022) conducted a cross-sectional study in the United States and Europe, highlighting varying loneliness rates and regional differences. Wei et al. (2022) noted higher loneliness among individuals living alone (52.1%) compared to those living with others (29.5%). Beadle et al. (2022) emphasized varying levels of loneliness based on age and living arrangements, highlighting demographic considerations.

The harmful consequences of loneliness are extensively investigated, and the effects on older adults' daily routines, social engagements, and physical activity levels are well documented. Existing literature has reported connections between loneliness and adverse mental health outcomes, including depression, anxiety, cognitive decline, and compromised physical health (Beadle et al., 2022; Han et al., 2017; Schorr et al., 2021); increased mortality risk (Holt-Lunstad et al., 2010); diminished functional status and family support; and strained friendships (Hawkey & Kocherginsky, 2018). Thus, loneliness is a significant public health concern (Dobarrio-Sanz et al., 2021). The literature shows that the COVID-19 pandemic has led to an exacerbation of loneliness among older adults in Israel. Governmental policies and practices that constituted social distancing played a crucial role in explaining older adults' negative psychological responses (Greenblatt-Kimron et al., 2023; Shrira et al., 2020).

The literature suggests a growing trend of online interventions for older adults involving arts. These interventions include a myriad of activities, such as community-engaged arts programs (Phinney et al., 2014), digital media literacy (Moore & Hancock, 2022), expressive arts with isolated seniors (Wilkinson et al., 2013), art therapy (Ciasca et al., 2018), creative arts (Keisari et al., 2022), and life-story crafting in photocollage work (Keisari et al., 2021).

Additionally, online art-based interventions have demonstrated several encouraging outcomes for the older adult populations. For instance, online creative arts interventions such as photocollage-based programs have been developed to inspire older adults to express spirituality, overcome loneliness, and craft their life stories, especially during the COVID-19 pandemic (Keisari et al., 2021, 2022). Other studies have shown the enhancement of well-being and social engagement (Wilkinson et al., 2013) and the potential of art for treating depression (Ciasca et al., 2018). This is important in the context of online interventions for the older adult population, as compared to in-person interventions that might pose a challenge for mobility issues (Hrnjic et al., 2021). Additionally, older adults benefit from online memory interventions (Pike et al., 2018), community-engaged art programs for fostering social inclusion (Moody & Phinney, 2012), and virtual art-based learning for developing and maintaining observation skills (Sandberg et al., 2022).

Photovoice and Online Photovoice Among Older Adults

The photovoice methodology was first developed in the 1990s by Wang and Burris (1994, 1997). It includes (a) critical pedagogy of Paulo Freire (2000), which stresses how empowerment can be

achieved through education and dialogue; (b) feminism, focusing on silenced voices; and (c) art-based and visual research (Wang & Burris, 1997) that utilizes photography as a collaborative method to explore and to convey problems, successes, strengths, and resources of a community. Participants are tasked with using photography, using either a camera or a cellular phone, to document their daily experiences and verbalize and explain their images. Using the SHOWeD method (Wang & Burris, 1997)—what do you see, what is its underlying narrative, and how does this relate to our communal existence? In the context of empowerment and what actionable steps can we take to gain more power? By employing this protocol as a framework for group discussion, a transition occurs moving from individual narratives to collective experiences and providing a foundational understanding of our shared reality (Ganz, 2009).

Photovoice interventions, as shown above, can help older adults articulate their views, thereby facilitating both a deeper subjective understanding of their own lives as well as enhancing understanding among group members with shared vulnerabilities while also contributing to the development of a sense of community (Novek et al., 2012). Indeed, this method has been applied among older adult populations (Airth et al., 2022; Dulek & Stein, 2024; Fitzpatrick et al., 2012; Heinz et al., 2023; Miller et al., 2019; Mysyuk & Huisman, 2020). Examples of these photovoice-led community investigations include studies that have delved into the health needs of older adult women in rural Canada, as documented by Leipert and Smith (2009), and their dietary patterns, as explored by Neill et al. (2011). Further, the method was used to examine the perspectives of older adults regarding accessibility and the age-friendliness of communities by Novek and Menec (2014), while older adults' perceptions of respect and social inclusion within urban contexts in the United Kingdom were studied by Ronzi et al. (2016). Research by Bell and Menec (2015) used photovoice to investigate views on dependence and independence and the needs of African American older adults in recovery from addiction and engaged in methadone use (Rosen et al., 2011). Fitzpatrick et al. (2012) assessed cardiovascular health awareness among older Asian adults residing in the United States with a photovoice methodology.

Amidst the COVID-19 crisis, a study conducted in the United States utilizing photovoice methodology demonstrated that this approach effectively enhanced participants' abilities for self-reflection, learning, and collaboration (Dulek & Stein, 2024). Airth et al. (2022) used it to address older adults' mental health concerns in rural British Columbia. Heinz et al. (2023) used photovoice to explore how older adults perceived meaning and purpose during the pandemic. Collectively, these studies underscore the efficacy and applicability of the photovoice methodology in elucidating diverse experiences and perspectives within older adult populations, as affirmed by Oliffe et al. (2023). This methodology becomes both a way of empowering and enhancing communication among elderly groups, as well as (e.g., Jetten et al., 2012) researching those groups.

As part of this trend, while the online utilization of this methodology is still relatively nascent among older adults (Ottoni et al., 2023), some studies are focusing on online photovoice among older adults (Ferlatte et al., 2022; Greer et al., 2025; Karmann et al., 2023; Ottoni et al., 2023; Weil, 2024). This methodology facilitated the sharing among participants of their coping mechanisms with others, aiding in establishing routines to tackle the challenges posed by COVID-19 (Ferlatte et al., 2022; Karmann et al., 2023). During this period, a study conducted in Canada highlighted three advantages

of online photovoice among older adults: fostering connectivity despite technological hurdles, pooling strengths and resources, and facilitating information exchange despite social distancing measures (Ottoni et al., 2023). Additionally, a study in the United States (Weil, 2024) demonstrated how the photovoice methodology provided older adults with a platform to capture the essence of home and family through photography. Another study (Greer et al., 2025) explored the adaptation of older adults to COVID-19 using online photovoice-based interviews. This research identified five pivotal factors contributing to adaptation: the significance of familial and interpersonal bonds, striking a balance between safety and social engagement, heightened appreciation for outdoor activities, the emergence of new learning platforms, and the influence of internal belief systems (Greer et al., 2025).

Considering the growing research interest in online photovoice applications for senior citizens, especially in the context of crises like the COVID-19 pandemic and resulting social isolation, our goal was to investigate how older adults participating in an online intervention program using photovoice experienced this intervention in relation to loneliness-related issues.

Method

This study relies on the constructivist-interpretive paradigm as a phenomenological study (Creswell & Poth, 2016), focusing on the lived experiences of older adults. By adopting the phenomenological perspective (Husserl & Moran, 2012), this research aims to understand their experiences of participating in an online group intervention process based on the photovoice methodology. Specifically, in the context of the COVID-19 crisis, the study seeks to comprehend how older adults cope with loneliness within the imposed social reality. This perspective enabled us to identify and understand the elements of the photovoice and of the group experience that were helpful to the participants.

Participants and Procedure

Twenty-two older adult individuals, including nine women, participated in the project. All participants were cognitively intact, were mobile, and had the necessary intellectual and technical abilities to use Zoom and benefit from the learning and group process. Their ages ranged from 68 to 81 years old. The participants were recruited by the Photo-Israel organization (PIO). In response to the COVID-19 pandemic, the PIO launched the “Photographic Connection” project to connect with older adults confined to their homes. The project involved Zoom-guided photovoice sessions. According to the Israeli government’s social distancing policy, participants were allowed to take photographs outside their homes within a few kilometers of their homes. They were permitted to move around while maintaining social distance, wearing masks, and without gathering in groups. The recruitment efforts included calling participants aged 65 and above to invite them to join these groups. The PIO used social media platforms to encourage participation and collaborated with government ministries and aid organizations dedicated to working with older adults. This collaboration helped to publicize the project among seniors across Israel. Ultimately, 22 older adults agreed to participate in two groups conducted from the middle of 2020 to the end of 2021: Ten individuals participated in the first group,

and 12 others in the second. All the participants signed informed consent forms to participate in the research.

The research participants were informed from the outset that the project would be accompanied by research. Following this, during February to April 2022, the research team established contact with participants via phone calls and WhatsApp messages to schedule interviews. In some cases, participants themselves reached out to the research team, eager to share their experiences and express interest in participating in the research.

The sociodemographic characteristics of the sample appear in the Appendix. Since voluntary consent was a crucial inclusion criterion, we ensured that no pressure was placed on those who chose not to participate. Consequently, the remaining nine individuals opted out of the study for personal reasons beyond our control.

The Intervention Program Model

Based on recommendations from the psycho-educational intervention group (e.g., Furr, 2000), each group comprised 10–12 participants. Led by an experienced facilitator in photovoice-based interventions, following established models (Author 2), the intervention unfolded in three phases.

Orientation Phase. Consisting of two sessions, the orientation covered three parts: (a) In the conceptual–philosophical dimension, participants gained insight into the photovoice methodology, social art concepts, and the importance of community. Discussions included topics such as challenges like loneliness during crises. (b) In the practical dimension, basic training in technology and photography, emphasizing the use of accessible tools like cellular phone cameras, was provided. (c) Ethical considerations regarding photography were also discussed.

Implementation Phase. This phase comprised two stages: (a) photovoice preparation—participants captured weekly photos and crafted accompanying narratives, and (b) group work sessions—structured around sharing, presentation, group dialogue, and conclusion, these sessions facilitated discussion and feedback on submitted photovoice projects.

Exhibition. After the 10 group sessions, two additional meetings were held to prepare for an exhibition, adaptable to physical or online formats due to COVID-19 restrictions. Participants brainstormed key themes, chose a title, and selected works for inclusion. Additionally, they could write essays detailing their journey, serving as an introduction to the exhibition’s context.

Data Collection and Analysis

Data were gathered using semistructured, in-depth interviews, which were informed by an interview guide (Patton, 2014). The interviews began with a statement explaining the study’s aim: to examine participants’ experiences in a photovoice group amidst the COVID-19 pandemic. Following the structured interview guide, participants were posed a series of inquiries such as the following: “How have you perceived the task of documenting your daily life through photography?” “What has been your experience with engaging with others via Zoom?” They were allowed to articulate their experiences with photovoice. The interviews were conducted

and transcribed in Hebrew and subsequently translated into English by two independent professional translators for the article's preparation. Throughout the translation process, meticulous efforts were undertaken to ensure the rendition was closely aligned with the interviewees' perspectives.

According to a three-step model, 22 interviews were analyzed using content analysis (Elo & Kyngäs, 2008). The steps were as follows: (1) *preparation*—the interviews were transcribed, and a holistic reading of each of them was carried out, extracting initial impressions; (2) *organization*—the data were organized using an inductive approach by the research team and were openly coded to identify repeated words, ideas, and subthemes; and (3) *reporting*—the coded data were categorized into three distinct themes, and the research team members compared these themes until a consensus was achieved.

Ethical Considerations

The Social Work Department's ethics committee in the authors' academic institution approved the study. All participants consented to participate by signing informed consent forms. To ensure privacy, the names of the participants and any names of individuals mentioned during the interviews have been altered. The interviews were conducted voluntarily after the conclusion of the group intervention. It is essential to distinguish between the intervention program, where participants' works and identities were permitted to be openly disclosed, and the research, which prioritized maintaining the anonymity and confidentiality of its subjects. This strategy was adopted to adhere to ethical standards and research guidelines and offer participants a secure environment to share their experiences without exposure.

Results

The study results provide insights into three distinct dimensions concerning the participants' experiences: the supportive dimension, the values dimension, and the opening of new opportunities

dimension (refer to Table 1) in the context of online photovoice group intervention during the COVID-19 crisis.

The Supportive Dimension

The Social Support Element of Belonging to a Group.

P2: If there wasn't this photography course, I think I would have broken a bit; it held me. ... In the framework of our participation in the program, many topics of loneliness for adults and social difficulty were raised.

P8: There were widows and older widowers who experienced much loneliness, and the group helped. ... I can share that I had a place in the group. The friendship of the group was the most fun.

Amidst the COVID-19 pandemic, isolation and social distancing measures significantly contributed to heightened feelings of loneliness among older adults. The experiences of participants P2 and P8 underscore the instrumental role of the group in combating this loneliness. Participant P2 observed that the group setting facilitated open discussions about loneliness and various challenges, providing a much-needed platform for expression. On the other hand, participant P8 highlighted the group's role for diverse individuals, fostering both the expression and acceptance of the diversity of experiences among the participants. This transformative process exemplifies the group's effectiveness in addressing the pervasive feelings of loneliness and assisting members to navigate the complexities associated with these challenging times.

The Group as a Safe Space.

P1: It made me feel safe that the photographs were only for the group, I didn't have to show them to people I didn't know. This made it easier, I wondered how they would react and that made it more fun to photograph.

Table 1

The Experience of Being Part of a Group: Themes and Subtheme

Theme	Subtheme
(1) The supportive dimension	1.1. The social support element of belonging to a group "If there wasn't this photography course, I think I would have broken a bit." 1.2. The group as safe space "It made me feel safe that the photographs were only for the group."
(2) The values dimension: prioritizing of relational over aesthetic values	2.1. Values of relational rather than aesthetic artistic expression "There was no criticism there. What's nice about photovoice is that you don't need to be a great photographer." 2.2. The enhancement of voice "Participating in the group made it possible to make our voice heard."
(3) Enhancing communication elements	3.1. Photographs as enhancing group communication "I myself was surprised to find out how much this photography tool was able to touch people." 3.2. Zoom as enabling closeness in a time of social isolation "Through the use of Zoom to meet other people, I understood the power that this communication has." 3.3. The relationships created in the Zoom group as sustainable beyond the group space "We finished the project but our friendships continued beyond the workshop, of those that remained—we're in touch—to this day we're in close contact ... mainly three from the group."

- P7: The facilitator protected people so that we felt safe; she was attentive, talking less and listening more. She knew how to remove resistance within the group and helped us move past points where we were stuck talking about our images.

In alignment with the collective's effectiveness in mitigating loneliness, participants underscored the group setting as a sanctuary. P1 highlighted this by being comfortable sharing photographs with fellow group members rather than with those outside the group. This decision signals a willingness to expose personal elements within a nonjudgmental context. Additionally, the sense of security within the group setting encouraged P1 to further share aspects of his daily life through more photographs. P7's narrative supports this view, emphasizing the crucial role of the group leader in establishing a secure environment. This was accomplished through professional listening skills and adept management of group dynamics, ensuring that participants felt protected. Consequently, this fostered an atmosphere where members could fully engage without the fear of judgment or backlash.

The Values Dimension: Prioritizing of Relational Over Aesthetic Values

Values of Relational Rather Than Aesthetic Artistic Expression.

- P5: There was no criticism there. What's nice about photovoice is that you don't need to be a great photographer. It's what I loved. And also, if it doesn't connect to what they asked of you, no one scolds you because that's what you wanted to share and what you connected to that week and that's wonderful in my eyes.
- P12: The encouragement and compliments were the best thing in the group. You put something up and everyone said "wow it's beautiful, keep going."
- P10: We learned from being different. Each one can see something different, it's really beautiful, from the point of view of his life, from the way he sees, from his environment.

The first aspect of the value dimension within the group revolves around relationships and relationality, emphasizing the importance of fostering connections while treating others as subjects rather than objects. P5's account underscored this, noting the absence of criticism during the presentation of photographic works and the significance of being accepted—as he was—by others. This form of relationship is characterized by nonjudgmental acceptance, acknowledging the individual and their unique circumstances. P12's testimony further elucidates this concept, highlighting how group members served as mirrors, reflecting empowering affirmations that bolstered self-worth and encouraged continued exploration through photography. Additionally, P10's narrative provides a complementary perspective, emphasizing the group's respect for diversity and individuality, affirming each person's right to be different. This underscores a space that values inter-subjective relationships based on listening, acceptance, admiration, and reciprocity.

The Enhancement of Voice.

- P2: Participating in the group made it possible to make our voice heard. It was beyond art or a photography course. It was a process that was also social and broader. ... One that gave us as the participants an opportunity to highlight our social point of view.
- P7: I told my story, I felt that I could express myself and tell my story in a way that was comfortable for me, and in a place (the group) where people could identify with this story, or at least not dismiss it.
- P9: It was nice to find out what other people saw in the picture I took. Sometimes, I photographed something that I carried with me all my life, and sometimes, I photographed something related to the mood I woke up with that morning. These two things each had a place so I could understand myself through what others saw and reflect back.
- P13: The photography assignments I presented to the group allowed me to express my pain. Then I realized that it wouldn't have been possible anywhere else, and I might have broken if I hadn't done it.

The second dimension of value in the participant's experience of the group pertains to the process of discovering one's voice. In this context, "voice" signifies the chance for individuals to express their viewpoints, knowledge, life histories, and personal-social stories. P2 highlighted that the group intervention transcended the conventional boundaries of a mere academic course focused on acquiring knowledge. Instead, it established a platform for exchanging personal-social narratives and various perspectives. Similarly, the example provided by P7 draws attention to the capacity for storytelling within an environment of acceptance, where respectful disagreement is not only allowed but encouraged. P9 shed light on a different facet: the role of the group in aiding participants to, through reflection and feedback, clarify and enhance their personal voice as evidenced in the narratives shared through photography. This facet is identified as a critical element of social acknowledgment fostered within the communal space. Moreover, P13's account further delves into this theme by spotlighting the expression of pain intrinsic to personal stories and the journey toward finding one's voice, which can sometimes emerge as a cry in the absence of other means of expression. In situations where such avenues for articulation are absent, the group acts as a conduit for catharsis and emotional liberation, fostering a more coherent internal dialogue, alongside improving interpersonal interactions.

Enhancing Communication Elements

Photographs as Enhancing Group Communication.

- P4: I myself was surprised to find out how much this photography tool was able to touch people, how much it allowed you to share your pain together with other participants.
- P11: After a phase of looking inward that we did a little bit ... we talked about the images, and it was lovely to see what the

others saw in your picture. It was fun to share and see the other photographers' points of view.

The initial aspect of how participants experienced the group within the dimension of opening and enabling new opportunities involved learning the language of photography as a novel form of expression. P4's account encapsulates this sentiment, expressing surprise at the power of photography to convey complex emotions and narratives, to serve as a medium for both personal expression and shared empathy. This highlights photography's unique ability to communicate profound feelings, including pain, to others. P11's narrative further elucidates this concept by illustrating how acquiring the language of photography facilitated group discussions where participants exchanged feedback. Through photography as a medium of mediation, participants engaged in conversations that delved into their inner worlds, uncovering unconscious thoughts and ideas that became conscious through the process of communication within the group. This suggests that learning the language of photography not only enabled individual expression but also fostered deeper interpersonal connections and insights into shared experiences.

Zoom as Enabling Closeness in a Time of Social Isolation.

As mentioned, this group convened during the COVID-19 pandemic, when older adult individuals were self-isolating due to government regulations. Despite the technical challenges associated with Zoom that were highlighted, its effectiveness in establishing a support group was unequivocally evident.

- P3: At first it was a bit technologically complicated, but after I overcame my fears I discovered that it was amazing that people were at home and could take a picture of something inside the house or in the immediate vicinity and upload it to Zoom and meet other people on Zoom.
- P10: The initiative of the photography group with the phone, it opened up an opportunity for me during the Corona period when I was sitting at home and was very afraid to go out. When I learned better how to use Zoom, then it gave me a tool to live better in my small environment.
- P11: I liked the functions that can be brought in Zoom, the possibility of uploading movies and additional content in a face-to-face meeting with others is sometimes difficult to express.
- P13: Through the use of Zoom to meet other people, I understood the power that this communication has. That is, it created a sense of belonging to people, and it alleviated the endless loneliness that the coronavirus brought.

In the context of unveiling new possibilities, the second aspect of participants' experiences within the group was significantly linked to the technological facet of leveraging platforms such as Zoom for online communication. This transition significantly aided in moving from disconnection and social isolation toward fostering meaningful connections with others. The account provided by P3 vividly illustrates that utilizing Zoom was a pivotal opportunity to acquire new knowledge and skills, ultimately facilitating connections with

new individuals. Similarly, the experience shared by P10 exemplifies how online communication was instrumental in overcoming fears and enhancing life quality by enabling connections with the external world. Furthermore, P11's narrative underscores the broadening of their capabilities beyond simple communication, thanks to Zoom. She elucidated her exploration and mastery of various platform functions, which significantly augmented her capacity for self-expression by utilizing supplementary aids such as films. This elucidation underscores how engagement with technological platforms facilitates social connectivity and fosters personal growth and creative expression. By delving into the capabilities of Zoom and incorporating new tools, individuals like P11 have broadened their skill sets, enhancing their communicative and expressive capabilities across diverse mediums. The case of P13 distinctively highlights the pivotal role of online communication in mitigating the exacerbation of feelings of loneliness and social isolation, a situation aggravated by the COVID-19 pandemic. Despite the inherent technical challenges associated with acquiring proficiency in a novel communication tool, the participants recognized that using Zoom for group interventions yielded novel and advantageous prospects for personal development and social engagement.

The Relationships Created in the Zoom Group as Sustainable Beyond the Group Space.

- P1: We finished the project but our friendships continued beyond the workshop, of those that remained we're in touch—to this day we're in close contact ... mainly three from the group. Two weeks ago, I met with three of them. I met new people which always makes me happy. We are in contact to this day.
- P3: I am still in touch with one of the group members, we went to study together at the university in studies for retirees ... I am in touch with the others on Facebook.
- P8: When the project ended, we continued it. We told the facilitator that we were continuing on our own. And we continued for a long time, almost a year. With bigger differences, but we continued it for almost a year as well and did four more meetings in homes.
- P10: Two weeks ago, I met with three of them. With one we walked in Florentine (a well-known street in Tel Aviv) because I like graffiti and with the others I sat in the Carmel Market and we ate chips and fish.

The third aspect, concerning participants' experiences with the group, especially regarding fostering novel opportunities, significantly involved establishing new relationships. The advent of online communication was a vital mechanism for addressing loneliness during the project and supported the continuation of interpersonal connections beyond its conclusion. P1 illustrated this by highlighting a trend of staying in touch with group members after the end of the project. P3 expanded on this idea, highlighting how these connections led to ongoing collective learning experiences beyond the original project's scope. P8's testimony introduces a new dimension, showing the development of independence among group members to maintain their connections, evolving into a self-managing support group

format. Furthermore, P10's account emphasizes the long-term advantages of these relationships beyond Zoom, creating opportunities for face-to-face meetings and meaningful social interactions. In general, the group's ability to nurture lasting connections and support networks demonstrates the innovative potential of online communication platforms.

Discussion

The association between loneliness and adverse outcomes in both mental and physical health, alongside diminished functional ability and social support, has been extensively documented in the literature (Beadle et al., 2022; Han et al., 2017; Hawkey & Kocherginsky, 2018; Schorr et al., 2021). It represents a considerable challenge to public health (Dobarrio-Sanz et al., 2021), a challenge that has been further exacerbated during times of crisis, such as the COVID-19 pandemic (Greenblatt-Kimron et al., 2023; Shrira et al., 2020).

The photovoice methodology was used with older adult populations in several studies (Airth et al., 2022; Dulek & Stein, 2024; Fitzpatrick et al., 2012; Heinz et al., 2023; Miller et al., 2019; Mysyuk & Huisman, 2020; Novek et al., 2012). However, few studies have focused on online interventions with adults, a phenomenon that emerged in response to the COVID-19 pandemic (e.g., Ferlatte et al., 2022; Greer et al., 2025; Keisari et al., 2021). The in-person application of a photovoice-based study with older adults typically depends on personal support from a research assistant and individual interviews conducted in front of collected photographs (Novek et al., 2012). Similarly, when applied in group settings, photovoice studies often involve a small number of participants (5–6) and a limited number of sessions (six meetings) due to challenges in availability and accessibility (Dulek & Stein, 2024). In contrast, the online application of photovoice was demonstrated as a novel way to connect with a wide range of participants (Ferlatte et al., 2022), with distinct advantages, such as enabling participation from one's familiar environment and addressing accessibility issues related to space, travel, and scheduling flexibility. Thus, the present study aimed to explore how adults participating in an online photovoice group intervention program perceived and found meaning in issues related to loneliness during the COVID-19 pandemic.

Three primary themes emerged from the data analysis. The first theme underscores the supportive aspect of the online photovoice group. This group combated loneliness through two distinct yet complementary paths. Initially, it facilitated an open dialogue concerning the adverse phenomenon of loneliness among older adults and the deleterious effects it engenders (Cohen-Mansfield et al., 2016). This finding aligns with previous research, which highlighted the critical need for older adults to have means to combat loneliness and avenues to express their emotions (Bessaha et al., 2020). Subsequently, the formation of new friendships coincided with the expression of difficult emotions. Previous studies have documented the correlation between the robustness of social networks, the enhancement of life quality, and the promotion of physical (Saadeh et al., 2020) and mental health among older adults (Main & Xie, 2020). Participants deemed the group as a secure environment. This perception is particularly significant in the context of the COVID-19 pandemic, which was viewed as a period of heightened insecurity, especially for the older adult cohort (Seifert, 2021).

The second theme communicates the values associated with the medium of photovoice specifically (rather than, e.g., fine art or a verbal medium). Participants described a judgment-free environment characterized by acceptance and collaboration, emphasizing the interpersonal aspect of the photovoice-based group intervention. At the same time, the visual element, as a projective space, enabled participants to express emotions in effective ways so others could understand and “feel” those emotions. It challenged the participants to try a new experience. Although not explicitly expressed, this finding identifies the intervention as a possible strategy to combat internalized ageism. Internalized ageism is characterized by the negative perceptions and beliefs that older adults hold regarding their own process of aging (van Kampen et al., 2023), as pronounced in prior studies regarding the challenges encountered by older adults amidst the COVID-19 pandemic (Köttl et al., 2021).

Moreover, the second subtheme articulated the values of voice expression as a genuine way for the participants to express their voices and even “express their pain” (P13). The significance of these findings is further reinforced by evidence from other research, which has shown that ageism—where the voices of older adults are dismissed, especially amidst the COVID-19 pandemic (Silva et al., 2021)—may have deleterious effects on the mental health of older adults (Lyons et al., 2018) and overall quality of their lives (Hu et al., 2021).

The third theme highlights the promising ability of this online intervention to open new opportunities for social connections even during crises, such as the COVID-19 pandemic, its associated social distancing policies, and situations such as limited mobility or being housebound. Although the interactions were facilitated through Zoom rather than in person, the group was still perceived as a safe space for discussing private concerns and sharing loneliness through the photos captured by the participants. This finding corroborates previous research suggesting that the use of photovoice groups conducted via Zoom can be beneficial in promoting the well-being of older adults (Ferlatte et al., 2022; Greer et al., 2025; Karmann et al., 2023; Ottoni et al., 2023; Weil, 2024). In this instance, the findings of the present study emphasize the participants' ability to overcome technical difficulties, as demonstrated in the analysis by Malka et al. (2024). Additionally, the findings highlight how participants experienced the intervention as fostering closeness and self-expression. While Malka et al. (2024) focused on the participants' challenges with the technical aspects of photography and documenting their daily experiences through a combination of photography and narrative writing, the present study contrasts by emphasizing the group experience. The findings here offer a complementary perspective, focusing on the collective dynamics and emotional connections formed during the photovoice process, rather than the technical challenges of preparing the photovoice itself. The last subtheme is particularly encouraging for two main reasons: First, previous studies showed that most frequent changes in social support among older adults include a decrease in social connectedness, changes in relationships due to illness or death of a spouse, and variations in emotional support impacting psychological well-being (Hill et al., 2014; Tengku Mohd et al., 2019; Vos et al., 2020; Zhao et al., 2020). Our research indicates that interventions conducted via Zoom act as a catalyst in developing new, enduring friendships among older adults, which is fundamentally important given the many challenges of aging. Furthermore, our study provides evidence supporting the progression from virtual to in-person

relationships. These outcomes support existing literature, asserting that Zoom can effectively facilitate forming real-world social connections among older adults. This, in turn, enhances their overall well-being, integrates them into social circles, and mitigates the risk of isolation (Brandon et al., 2022; Park et al., 2021; Spradley, 2021).

Implications

Our findings present several implications for researchers, professionals, and policymakers. First, they corroborate the existing body of photovoice studies aimed at promoting participatory approaches, particularly among older adults. This supports the principle of “doing with” rather than “doing for” (Charlton, 1998). Based on the results of this study, future research could emphasize increased collaboration and engagement with older adults in examining their living conditions. This approach positions them not only as research subjects but also as social activists who can generate knowledge, articulate their needs, and advocate for themselves to professionals and policymakers.

Second, the findings advocate for integrating the photovoice method in the training of gerontologists and helping professionals working with older adults. This approach offers a well-rounded blend of research focused on identifying needs, challenges, and resources fostered by an intervention process that encourages meaningful critical dialogue (Wang & Burris, 1997). As a result, older adult participants can cultivate a strong awareness of their roles as community advocates, expressing their own experiences and those of others.

Third, our research emphasizes the effectiveness of group interventions for older adults, especially during national or global crises. In these challenging times, resources are often scarce compared to the needs of this population. Group-based interventions have been shown to be both effective and cost-efficient in providing support to older adults when they need it most (e.g., Shapira et al., 2021).

Fourth, given the learning abilities and personal resources demonstrated by the study participants, it would be beneficial to incorporate older adults as facilitators in community volunteer training programs, particularly those employing the photovoice methodology. Organizations such as PHOTO IS:RAEL could greatly benefit from involving older adults as trainers or facilitators within photovoice groups. This approach not only recognizes their extensive knowledge and experience, especially in relation to their own age group, but also challenges ageist stereotypes regarding the capacities of older adults.

Fifth, the study highlights that older adults can adapt to the challenges posed by technology. While in-person meetings offer certain benefits, it is crucial to identify scenarios where these interactions may be difficult for them. In such instances, promoting the use of technology for online communication can be beneficial (Haase et al., 2021; Hülür & Macdonald, 2020; Sen et al., 2022; Yu et al., 2021). This approach not only facilitates connections among older adults in distant locations or across countries but also provides a valuable platform to combat loneliness, nurture relationships, and engage in discussions about their living conditions. Furthermore, it opens avenues for advocating policy changes aimed at improving their lives.

Finally, to build on the classical implantation model of photovoice (Wang & Burris, 1997), it is recommended to establish photovoice groups that extend beyond simply addressing social isolation and nurturing relationships. These groups should incorporate an activist element, functioning as platforms to identify the

needs of older adults, confront social injustices, advocate for new rights, and challenge ageism.

Conclusion

Our Zoom-based photovoice intervention emerged as a notably accessible and cost-efficient method for loneliness reduction, devoid of the necessity for complex apparatus and high-cost training. The value of such interventions is magnified in the milieu of contemporary uncertainty, marked by political instability, climate change, and public health crises like the COVID-19 pandemic. This study's findings underscore the feasibility and positive outcomes of this intervention. The elements of this intervention for older people, as evidenced by this research, highlight the importance of providing ample support with the Zoom platform, facilitating engagement with the physical world, and building new friendships. Strong relational support and encouragement are also crucial components of this model. Hence, the present study establishes a framework for promising future interventions to reduce loneliness among older adults during crises as well as under normal circumstances.

Keywords: loneliness, COVID-19, older adults

References

- Airth, L., Oelke, N. D., Rush, K. L., Chau, S., & Szostak, C. (2022). Living as older adults with mental health concerns in rural British Columbia: A photovoice study. *Aging & Mental Health*, 26(12), 2462–2471. <https://doi.org/10.1080/13607863.2021.1998360>
- Beadle, J. N., Gifford, A., & Heller, A. (2022). A narrative review of loneliness and brain health in older adults: Implications of COVID-19. *Current Behavioral Neuroscience Reports*, 9(3), 73–83. <https://doi.org/10.1007/s40473-021-00237-6>
- Bell, S., & Menec, V. (2015). “You don’t want to ask for the help” the imperative of independence: Is it related to social exclusion? *Journal of Applied Gerontology*, 34(3), NP1–NP21. <https://doi.org/10.1177/0733464812469292>
- Bessaha, M., Sabbath, E., Morris, Z., Malik, S., Scheinfeld, L., & Saragossi, J. (2020). A systematic review of loneliness interventions among non-older adults. *Clinical Social Work Journal*, 48(1), 110–125. <https://doi.org/10.1007/s10615-019-00724-0>
- Brandon, D. P., Griffin, C. L., Minniefield, D., Rudolph, D. D., Gullatte, D. L., Hyter, N. C., Irby, P. G., Christian, J. I., & Whittaker, C. L. (2022). Extension’s use of Zoom to address a public health risk among older adults. *Journal of Extension*, 60(4), Article 2. <https://doi.org/10.34068/joe.60.04.02>
- Charlton, J. I. (1998). *Nothing about us without us: Disability oppression and empowerment*. University of California Press.
- Ciasca, E. C., Ferreira, R. C., Santana, C. L. A., Forlenza, O. V., Dos Santos, G. D., Brum, P. S., & Nunes, P. V. (2018). Art therapy as an adjuvant treatment for depression in elderly women: A randomized controlled trial. *Revista Brasileira de Psiquiatria*, 40(3), 256–263. <https://doi.org/10.1590/1516-4446-2017-2250>
- Cohen-Mansfield, J., Hazan, H., Lerman, Y., & Shalom, V. (2016). Correlates and predictors of loneliness in older-adults: A review of quantitative results informed by qualitative insights. *International Psychogeriatrics*, 28(4), 557–576. <https://doi.org/10.1017/S1041610215001532>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Dobarrio-Sanz, I., Ruiz-González, C., Fernández-Sola, C., Roman, P., Granero-Molina, J., & Hernández-Padilla, J. M. (2021). Healthcare professionals’ perceptions of loneliness amongst older adults: A qualitative

- study. *International Journal of Environmental Research and Public Health*, 18(22), Article 12071. <https://doi.org/10.3390/ijerph182212071>
- Dulek, E. B., & Stein, C. H. (2024). The way I see it: Older adults with mental illness share their views of community life using photovoice. *Community Mental Health Journal*, 60(3), 457–469. <https://doi.org/10.1007/s10597-023-01192-0>
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Ferlatte, O., Karmann, J., Gariépy, G., Frohlich, K. L., Moullec, G., Lemieux, V., & Hébert, R. (2022). Virtual photovoice with older adults: Methodological reflections during the COVID-19 pandemic. *International Journal of Qualitative Methods*, 21, 1–10. <https://doi.org/10.1177/16094069221095656>
- Fitzpatrick, A. L., Steinman, L. E., Tu, S. P., Ly, K. A., Ton, T. G. N., Yip, M. P., & Sin, M. K. (2012). Using photovoice to understand cardiovascular health awareness in Asian elders. *Health Promotion Practice*, 13(1), 48–54. <https://doi.org/10.1177/1524839910364381>
- Freire, P. (2000). *Pedagogy of freedom: Ethics, democracy, and civic courage*. Rowman & Littlefield Publishers. <https://doi.org/10.5771/9781461640653>
- Furr, S. R. (2000). Structuring the group experience: A format for designing psychoeducational groups. *Journal for Specialists in Group Work*, 25(1), 29–49. <https://doi.org/10.1080/01933920008411450>
- Ganz, M. (2009). Why stories matter. *Sojourners*, 38(3), 16. Retrieved October 22, 2024, from <https://sojo.net/index.cfm?action=magazine.article&issue=soj0903&article=why-stories-matter>
- Greenblatt-Kimron, L., Ben-Ezra, M., Shacham, M., Hamama-Raz, Y., & Palgi, Y. (2023). Factors associated with ICD-11 posttraumatic stress disorder and complex posttraumatic stress disorder among older adults during the COVID-19 pandemic. *Global Mental Health*, 10, Article e49. <https://doi.org/10.1017/gmh.2023.42>
- Greer, V., Canham, S. L., Hong, A., Caylor, N., & Van Natter, J. (2025). Shifting perspectives: Outlooks on ageing in place in the COVID-19 era. *Ageing and Society*, 45(1), 76–299. <https://doi.org/10.1017/S0144686X23000211>
- Haase, K. R., Kervin, L., Riadi, I., & O'Connell, M. E. (2021). Older adults' experiences with using technology for socialization during the COVID-19 pandemic: Cross-sectional survey study. *JMIR Aging*, 4(2), Article e28010. <https://doi.org/10.2196/28010>
- Han, S. D., Adeyemi, O., Wilson, R. S., Leurgans, S., Jimenez, A., Oullet, L., Shah, R., Landay, A., Bennett, D. A., & Barnes, L. L. (2017). Loneliness in older black adults with human immunodeficiency virus is associated with poorer cognition. *Gerontology*, 63(3), 253–262. <https://doi.org/10.1159/000455253>
- Hawkey, L. C., & Kocherginsky, M. (2018). Transitions in loneliness among older adults: A 5-year follow-up in the National Social Life, Health, and Aging Project. *Research on Aging*, 40(4), 365–387. <https://doi.org/10.1177/0164027517698965>
- Heinz, M., Benton, N., & Gleissner, L. (2023). Older adults documenting purpose and meaning through photovoice and narratives. *The Gerontologist*, 63(8), 1289–1299. <https://doi.org/10.1093/geront/gnad008>
- Hill, P. L., Payne, B. R., Jackson, J. J., Stine-Morrow, E. A., & Roberts, B. W. (2014). Perceived social support predicts increased conscientiousness during older adulthood. *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences*, 69(4), 543–547. <https://doi.org/10.1093/geronb/gbt024>
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLOS Medicine*, 7(7), Article e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
- Hrnjic, L., Fry, N., & Wahbeh, H. (2021). Internet Mindfulness Meditation Intervention (IMMI) program with iMINDr application support for older adults with depression symptoms: A feasibility study. *OBM Integrative and Complimentary Medicine*, 6(4), Article 034. <https://doi.org/10.21926/obm.icm.2104034>
- Hu, R. X., Luo, M., Zhang, A., & Li, L. W. (2021). Associations of ageism and health: A systematic review of quantitative observational studies. *Research on Aging*, 43(7–8), 311–322. <https://doi.org/10.1177/0164027520980130>
- Hülür, G., & Macdonald, B. (2020). Rethinking social relationships in old age: Digitalization and the social lives of older adults. *American Psychologist*, 75(4), 554–566. <https://doi.org/10.1037/amp0000604>
- Husserl, E., & Moran, D. (2012). *Ideas: General introduction to pure phenomenology*. Routledge. <https://doi.org/10.4324/9780203120330>
- Jetten, J., Haslam, C., & Haslam, S. A. (Eds.). (2012). *The social cure: Identity, health and well-being*. Psychology Press. <https://doi.org/10.4324/9780203813195>
- Karmann, J., Handlovsky, I., Lu, S., Moullec, G., Frohlich, K. L., & Ferlatte, O. (2023). Resilience among older adults during the COVID-19 pandemic: A photovoice study. *SSM—Qualitative Research in Health*, 3, Article 100256. <https://doi.org/10.1016/j.ssmqr.2023.100256>
- Keisari, S., Piol, S., Elkarif, T., Mola, G., & Testoni, I. (2021). Crafting life stories in photo collage: An online creative art-based intervention for older adults. *Behavioral Sciences*, 12(1), Article 1. <https://doi.org/10.3390/bs12010001>
- Keisari, S., Piol, S., Orkibi, H., Elkarif, T., Mola, G., & Testoni, I. (2022). Spirituality during the COVID-19 pandemic: An online creative arts intervention with photocollages for older adults in Italy and Israel. *Frontiers in Psychology*, 13, Article 897158. <https://doi.org/10.3389/fpsyg.2022.897158>
- Köttl, H., Gallistl, V., Rohner, R., & Ayalon, L. (2021). “But at the age of 85? Forget it!”: Internalized ageism, a barrier to technology use. *Journal of Aging Studies*, 59, Article 100971. <https://doi.org/10.1016/j.jaging.2021.100971>
- Leipert, B., & Smith, J. (2009). Using photovoice to explore rural older women's health promotion needs and resources. In P. Armstrong & J. Deadman (Eds.), *Women's health: Intersections of policy, research and practice* (pp. 135–150). Women's Press.
- Lyons, A., Alba, B., Heywood, W., Fileborn, B., Minichiello, V., Barrett, C., Hinchliff, S., Malta, S., & Dow, B. (2018). Experiences of ageism and the mental health of older adults. *Aging & Mental Health*, 22(11), 1456–1464. <https://doi.org/10.1080/13607863.2017.1364347>
- Main, A., & Xie, B. (2020). Social environment and mental and behavioral health outcomes in older adults: A critical review. *Innovation in Aging*, 4(Suppl. 1), 467. <https://doi.org/10.1093/geroni/igaa057.1512>
- Malka, M., Edelstein, O. E., Huss, E., & Hillel Lavian, R. (2024). Boosting resilience: Photovoice as a tool for promoting well-being, social cohesion, and empowerment among the older adult during the COVID-19 pandemic. *Journal of Applied Gerontology*, 43(9), 1183–1193. <https://doi.org/10.1177/07334648241234488>
- Miller, E., Buys, L., & Donoghue, G. (2019). Photovoice in aged care: What do residents value? *Australasian Journal on Ageing*, 38(3), e93–e97. <https://doi.org/10.1111/ajag.12641>
- Moody, E., & Phinney, A. (2012). A community-engaged art program for older people: Fostering social inclusion. *Canadian Journal on Aging*, 31(1), 55–64. <https://doi.org/10.1017/S0714980811000596>
- Moore, R. C., & Hancock, J. T. (2022). A digital media literacy intervention for older adults improves resilience to fake news. *Scientific Reports*, 12(1), Article 6008. <https://doi.org/10.1038/s41598-022-08437-0>
- Mysuk, Y., & Huisman, M. (2020). Photovoice method with older persons: A review. *Ageing and Society*, 40(8), 1759–1787. <https://doi.org/10.1017/S0144686X19000242>
- Neill, C., Leipert, B. D., Garcia, A. C., & Kloseck, M. (2011). Using photovoice methodology to investigate facilitators and barriers to food acquisition and preparation by rural older women. *Journal of Nutrition in Gerontology and Geriatrics*, 30(3), 225–247. <https://doi.org/10.1080/21551197.2011.591268>

- Novek, S., & Menec, V. H. (2014). Older adults' perceptions of age-friendly communities in Canada: A photovoice study. *Ageing and Society*, 34(6), 1052–1072. <https://doi.org/10.1017/S0144686X1200150X>
- Novek, S., Morris-Oswald, T., & Menec, V. (2012). Using photovoice with older adults: Some methodological strengths and issues. *Ageing and Society*, 32(3), 451–470. <https://doi.org/10.1017/S0144686X11000377>
- Oliffe, J. L., Gao, N., Kelly, M. T., Fernandez, C. C., Salavati, H., Sha, M., Seidler, Z. E., & Rice, S. M. (2023). The case for and against doing virtual photovoice. *International Journal of Qualitative Methods*, 22, 1–12. <https://doi.org/10.1177/16094069231190564>
- Otoni, C. A., Winters, M., & Sims-Gould, J. (2023). "I'm new to this": Navigating digitally mediated photovoice methods to enhance research with older adults. *International Journal of Qualitative Methods*, 22, 1–13. <https://doi.org/10.1177/16094069231199910>
- Park, G., Robinson, E., & Tefera, G. (2021). Older adult technology use during a global pandemic: A study of mental health, social supports, and resiliency. *Innovation in Aging*, 5(Suppl. 1), 218. <https://doi.org/10.1093/geroni/igab046.841>
- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage Publications.
- Phinney, A., Moody, E. M., & Small, J. A. (2014). The effect of a community-engaged arts program on older adults' well-being. *Canadian Journal on Aging*, 33(3), 336–345. <https://doi.org/10.1017/S071498081400018X>
- Pike, K. E., Chong, M. S., Hume, C. H., Keech, B. J., Konjarski, M., Landolt, K., Leslie, B. E., Russo, A., Thai, C., Vilsten, J. S., & Kinsella, G. (2018). Providing online memory interventions for older adults: A critical review and recommendations for development. *Australian Psychologist*, 53(5), 367–376. <https://doi.org/10.1111/ap.12339>
- Ronzi, S., Pope, D., Orton, L., & Bruce, N. (2016). Using photovoice methods to explore older people's perceptions of respect and social inclusion in cities: Opportunities, challenges and solutions. *SSM—Population Health*, 2, 732–745. <https://doi.org/10.1016/j.ssmph.2016.09.004>
- Rosen, D., Goodkind, S., & Smith, M. L. (2011). Using photovoice to identify service needs of older African American methadone clients. *Journal of Social Service Research*, 37(5), 526–538. <https://doi.org/10.1080/01488376.2011.607369>
- Saadeh, M., Welmer, A. K., Dekhtyar, S., Fratiglioni, L., & Calderón-Larrañaga, A. (2020). The role of psychological and social well-being on physical function trajectories in older adults. *The Journals of Gerontology: Series A, Biological Sciences and Medical Sciences*, 75(8), 1579–1585. <https://doi.org/10.1093/gerona/glaa114>
- Sandberg, B., Stasewitsch, E., & Prümper, J. (2022). Skills development through virtual art-based learning: Learning outcomes of an advanced training program for project managers. *Education Sciences*, 12(7), Article 455. <https://doi.org/10.3390/educsci12070455>
- Schorr, A. V., Yehuda, I., & Tamir, S. (2021). Ethnic differences in loneliness, depression, and malnutrition among older adults during COVID-19 quarantine. *The Journal of Nutrition, Health and Aging*, 25(3), 311–317. <https://doi.org/10.1007/s12603-020-1540-z>
- Seifert, A. (2021). Impact of the COVID-19 pandemic on self-perception of aging among older adults. *Gerontology & Geriatric Medicine*, 7, 1–7. <https://doi.org/10.1177/2333721421999320>
- Sen, K., Prybutok, G., & Prybutok, V. (2022). The use of digital technology for social wellbeing reduces social isolation in older adults: A systematic review. *SSM—Population Health*, 17, Article 101020. <https://doi.org/10.1016/j.ssmph.2021.101020>
- Shapira, S., Yeshua-Katz, D., Goren, G., Aharonson-Daniel, L., Clarfield, A. M., & Sarid, O. (2021). Evaluation of a short-term digital group intervention to relieve mental distress and promote well-being among community-dwelling older individuals during the COVID-19 outbreak: A study protocol. *Frontiers in Public Health*, 9, Article 577079. <https://doi.org/10.3389/fpubh.2021.577079>
- Shrira, A., Hoffman, Y., Bodner, E., & Palgi, Y. (2020). COVID-19-related loneliness and psychiatric symptoms among older adults: The buffering role of subjective age. *The American Journal of Geriatric Psychiatry*, 28(11), 1200–1204. <https://doi.org/10.1016/j.jagp.2020.05.018>
- Silva, M. F., Silva, D. S. M. D., Bacurau, A. G. M., Francisco, P. M. S. B., Assumpção, D., Neri, A. L., & Borim, F. S. A. (2021). Ageism against older adults in the context of the COVID-19 pandemic: An integrative review. *Revista de Saude Publica*, 55, Article 4. <https://doi.org/10.11606/s1518-8787.2021055003082>
- Spradley, L. (2021). Community collaborations and technology successfully connect isolated older adults to education and activities. *Innovation in Aging*, 5(Suppl. 1), 923. <https://doi.org/10.1093/geroni/igab046.3342>
- Su, Y., Rao, W., Li, M., Caron, G., D'Arcy, C., & Meng, X. (2023). Prevalence of loneliness and social isolation among older adults during the COVID-19 pandemic: A systematic review and meta-analysis. *International Psychogeriatrics*, 35(5), 229–241. <https://doi.org/10.1017/S1041610222000199>
- Tapia-Muñoz, T., Staudinger, U. M., Allel, K., Steptoe, A., Miranda-Castillo, C., Medina, J. T., & Calvo, E. (2022). Income inequality and its relationship with loneliness prevalence: A cross-sectional study among older adults in the US and 16 European countries. *PLOS ONE*, 17(12), Article e0274518. <https://doi.org/10.1371/journal.pone.0274518>
- Tengku Mohd, T. A. M., Yunus, R. M., Hairi, F., Hairi, N. N., & Choo, W. Y. (2019). Social support and depression among community dwelling older adults in Asia: A systematic review. *BMJ Open*, 9(7), Article e026667. <https://doi.org/10.1136/bmjopen-2018-026667>
- van Kampen, E., van den Berg, F., Brouwer, J., & Keijzer, M. (2023). Never too old to learn-third age adults experience little (self-)ageism or barriers to learning. *Social Sciences & Humanities Open*, 7(1), Article 100384. <https://doi.org/10.1016/j.ssaho.2022.100384>
- Vos, W. H., van Boekel, L. C., Janssen, M. M., Leenders, R. T. A. J., & Luijckx, K. G. (2020). Exploring the impact of social network change: Experiences of older adults ageing in place. *Health & Social Care in the Community*, 28(1), 116–126. <https://doi.org/10.1111/hsc.12846>
- Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: Portraits of participation. *Health Education Quarterly*, 21(2), 171–186. <https://doi.org/10.1016/j.ijnss.2020.09.011>
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369–387. <https://doi.org/10.1177/109019819702400309>
- Wei, K., Liu, Y., Yang, J., Gu, N., Cao, X., Zhao, X., Jiang, L., & Li, C. (2022). Living arrangement modifies the associations of loneliness with adverse health outcomes in older adults: Evidence from the CLHLS. *BMC Geriatrics*, 22(1), Article 59. <https://doi.org/10.1186/s12877-021-02742-5>
- Weil, J. (2024). Co-partnering in a virtual photovoice study design with older adults: A methodological approach. *The Gerontologist*, 64(6), Article gnae021. <https://doi.org/10.1093/geront/гнаe021>
- Wilkinson, F., MacLeod, A., Skinner, M. W., & Reid, H. (2013). Visible Voices: Expressive arts with isolated seniors using trained volunteers. *Arts and Health*, 5(3), 230–237. <https://doi.org/10.1080/17533015.2013.817447>
- Yu, K., Wu, S., & Chi, I. (2021). Internet use and loneliness of older adults over time: The mediating effect of social contact. *The Journals of Gerontology: Series B*, 76(3), 541–550. <https://doi.org/10.1093/geronb/gbaa004>
- Zhao, Z., Jing, S., Yan, Z., & Yu, L. (2020). Social change and birth cohort decrease in social support for older adults in China: A cross-temporal meta-analysis, 1994–2018. *Health & Social Care in the Community*, 28(5), 1438–1447. <https://doi.org/10.1111/hsc.13004>

(Appendix follows)

Appendix

Sociodemographic Characteristics of the Sample

No.	Gender	Age	Years of education	Marital status	Living arrangement
P1	Woman	68	12	Married	With others
P2	Woman	71	14	Married	With others
P3	Man	72	16	Married	With others
P4	Man	74	13	Divorced	Alone
P5	Woman	68	16	Married	With others
P6	Man	81	10	Widower	Alone
P7	Woman	80	9	Widow	Alone
P8	Woman	77	16	Widow	Alone
P9	Woman	76	12	Married	With others
P10	Man	79	9	Widower	Alone
P11	Woman	68	14	Divorced	Alone
P12	Man	78	12	Married	With others
P13	Woman	75	9	Married	With others

Note. P = participants.