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Experiences of Grandparents in Utilizing Communication Technology with Grandchildren
During COVID-19

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Abstract

The purpose of this study was to describe grandparents' use of communication technology during the COVID-19 pandemic, specifically with their grandchildren. This study highlighted the experiences of three grandparents. We conducted two semi-structured interviews for each participant to describe how grandparents and grandchildren stayed connected via communication technology. Interviews were recorded, transcribed, and coded. Themes from the study included frequency of communication, purpose of communication, feelings about communication technology, and changes due to communication technology. Grandparents felt both positive and negative feelings about communication technology. Communication technology was primarily used to maintain family relationships and increase connectedness. This study found that grandparents felt communication via technology, compared to in-person contact was less genuine. Regardless of the disingenuous aspect of communication technology, it became the primary form of communication during the pandemic. Participants of this study reported having a great affectual solidarity with their grandchildren, stating they explored using technologies to maintain or increase the frequency of contact with their grandchildren to improve their relationships.

Keywords: Communication, Grandparents, Grandchildren, COVID-19, Communication Technology

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Experiences of Grandparents in Utilizing Communication Technology with Grandchildren During COVID-19

In January 2020, the first case of COVID-19 was confirmed in the United States, and in March 2020, COVID-19 was declared a pandemic (Centers for Disease Control and Prevention, 2023). The Centers for Disease Control and Prevention (CDC) directed people to limit in-person contact to prevent exposure and transmission of the virus (Centers for Disease Control and Prevention, 2021). This regulation forced people to isolate themselves socially from people outside of their homes. Social isolation increases the risk of "...poor health, reduced well-being, mortality, depression, and cognitive decline" (Courtin & Knapp, 2015). Social isolation was a shared experience during the COVID-19 pandemic, forcing Americans to change their lives and as a result, change their relationships (Pew Research Center, 2021).

The Pew Research Center (2021) reported that 45% of people 65 years and older stated that they had to stay isolated, and 30% of Americans had limitations regarding their daily activities during the pandemic. This negatively affected how the older population lived due to the restrictions on their lifestyle. In the United States, there are approximately 70 million grandparents in the country, with the average age of a grandparent being 50 years (David & Kakulla, 2019). By age 65, 95% of people are classified as grandparents (David & Kakulla, 2019). A healthy relationship between grandparents and grandchildren provides social connectedness and has a positive impact on grandparents' lives, including healthy aging, increased confidence, and satisfaction (Ruiz, Saenz de Jubera Ocon, & Sanz Arazuri, 2020; Weaver, et al., 2022). This relationship also has positive effects on the development of the grandchildren involved (Strouse, et al., 2021). These findings suggest that the relationship

between grandparents and their grandchildren provides both with “vitality, hope, and happiness” (Ruiz, Saenz de Jubera Ocon, & Sanz Arazuri, 2020, p. 5).

The Intergenerational Solidarity Theory describes the relationship between the generations of family members, particularly grandchildren and grandparents (McDarby, Ju, & Carpenter, 2021, p. 164). A key component of the Intergenerational Solidarity Theory is affectual solidarity (Nouwen & Duflos, 2022). Affectual solidarity is defined as the emotional closeness between a grandparent and grandchild (Duflos & Giraudeau, 2021). The researchers found that when grandparents and grandchildren have greater affectual solidarity, they also have a greater frequency of contact (Duflos & Giraudeau, 2021).

Unfortunately, between November and December 2020, more than 34% of grandparents reported that since they had stopped caring for their grandchildren, they had experienced depressive feelings and disrupted sleep (Kluss, 2022). Due to the pandemic, some older adults thought that they had lost time to see loved ones, and found it upsetting to believe they would not get the time back (Greenwood-Hickman, et al., 2021). To follow the CDC’s advice to limit in-person contact, communication technology became a primary form of connection and was a continuous outlet for people during the pandemic (Freedman, Hu, & Kasper, 2021; McDarby, Ju, & Carpenter, 2021). Communication technology is defined as “...the transfer of information or messages among people and/or machines with the use of technology” (Rani, 2023).

Researchers who studied adults 65 and older found that video chat software on smartphones such as Zoom, Skype, and Facetime was used to cope with the lack of social interaction and to stay in touch with friends and family (Daly, et al., 2021; Greenwood-Hickman, et al., 2021). Using video chat technology allowed the participants to experience expressions and faces instead of only voices; however, the technology did not provide the same quality of

interaction as face-to-face contact (Daly, et al., 2021; Greenwood-Hickman, et al., 2021; Weaver, et al., 2022). Roche et al. (2022) found that grandparents showed decreased mental stress during video chats with their grandchildren. Overall, there was a steady increase in internet and social media use in older adults who were 65 years or older during the COVID-19 pandemic (Greenwood-Hickman, et al., 2021).

Communication technology use was not without its disadvantages. Grandparents experienced negative factors such as poor internet connections, low-quality internet providers, outdated technology, small or dark screens that are too hard to see, bugs and faults in social media applications, and more (Strouse, et al., 2021). Additionally, some older adults had negative feelings toward the use of technology to interact with others socially due to their lack of experience using video chat in their daily lives (Greenwood-Hickman, et al., 2021). Some reported that they felt distant from their grandchildren and felt as though they were missing out on important milestones of their child's life (Strouse, et al., 2021). Finally, technology was tiring and used for more interactions than older adults would have preferred. Weaver et al. found that older adults preferred spending time together while following social distancing regulations by remaining at least six feet away from each other, as it provided an, "...opportunity to see their [grandchildren and family] faces in person, not on FaceTime or Zoom," (2022, p. 8).

Current research demonstrates the importance of social relationships, specifically the relationship between grandparents and grandchildren (Strouse, et al., 2021), and it has been documented that the pandemic caused shifts in communication patterns for most if not all individuals (Freedman, Hu, & Kasper, 2021). Current research on the COVID-19 pandemic looks at how grandparents and grandchildren used technology to stay connected due to the social distancing policies during the pandemic phase of COVID-19, which has guided our research

question and the purpose of this study. Our research question is “What were the lived experiences of how grandparents utilized communication technology to stay connected with their grandchildren during COVID-19?”

Methods

Study Design

This study follows a narrative qualitative design, which is “a study of stories or narrative or descriptions of a series of events that accounts for human experiences,” with our specific focus being “... individual experiences, and chronologically ordering the meaning of those experiences.” (Creswell & Poth, 2018, pp. 68, 313). This study aimed to understand how grandparents and grandchildren used technology to stay connected during COVID-19.

Inclusion and Exclusion Criteria

Our inclusion criteria were English-speaking individuals or individuals with a translator available to assist in participation, grandparents of adopted grandchildren, step-grandchildren, and/or biological grandchildren, and grandparents with the ability to use communication technology. Our exclusion criteria were grandparents who live with their grandchildren, custodial grandparents, and/or grandparents in assisted living facilities.

Recruitment

Participants were recruited through flyers and emails containing a link to the initial survey, utilizing purposeful and snowball sampling. The researchers reviewed the data from the survey and chose three participants whose answers gave a variety of perspectives and experiences from grandparents during the COVID-19 pandemic. This resulted in the selection of 3 participants.

Instruments

Survey

The survey was based on a previous study called, “*Zooming through Development: Using video chat to support family connections,*” (Strouse, et al., 2021). The survey was sent to those who indicated interest in participating to ensure the respondents met the inclusion criteria. This survey included questions regarding the demographics of the grandparents, children, and grandchildren, as well as technology use, to gather background information that could prompt follow-up questions to the semi-structured interview questions. An expert faculty panel of occupational therapy practitioners and faculty reviewed and gave feedback regarding the survey questions to increase the validity and reliability of the survey.

Semi-Structured Interviews

Those selected from the initial survey answers were interviewed via video chat using a communication technology method convenient to the participant (Google Meet, FaceTime, etc.). The interview was a semi-structured interview, including planned questions and suggested prompts for follow-up. The questions included in the interview were a variety of open-ended, categorical, broad, structured, and closed-ended. Each participant was interviewed by two researchers. An expert faculty panel of occupational therapy practitioners and faculty reviewed and gave feedback regarding the questions for the interview to increase the validity and reliability of the questions.

Institutional Review and Ethics

Study 01871 was submitted and approved by the Institutional Review Board on June 30, 2023. Participants indicated informed consent by continuing through the initial survey after an

opening page providing full disclosure of the study's makeup and the role of a participant in the study.

Data Collection

Data were collected by an initial survey before enrollment in the study. Further data were collected by video-chat interviews via communication technology. The interviews were semi-structured, with priority questions and suggested prompts. The initial interviews were transcribed, and transcriptions were edited for technology mistakes. Multiple interviews were conducted with each participant as necessary to ensure data saturation was met.

Data Analysis

The transcriptions were read and coded by each researcher individually. Then researchers collaborated and collectively discussed commonalities between interview transcripts. Each interviewer then coded the transcripts. Memos and codes were created from individual interviews. To ensure inter-rater reliability, researchers reviewed each others' coding. Finally, researchers analyzed the codes for common themes. Themes were derived from collective codes among all participant interviews.

Findings

Three participants were interviewed about their relationships with their grandchildren using communication technology during COVID-19. Pseudonyms were used to address the three participants: Sharon (Participant A), Carla (Participant B), and Kathy (Participant C). Sharon had six grandchildren ages 12-21 years, Carla had four grandchildren ages 14-23 years, and Kathy had one grandchild who was 3 years old. Participants explored the aspects of learning communication technology, their feelings about it, how this impacted their relationship with their grandchildren, and what they did with their grandchildren while using technology.

All participants reported having consistent access to the internet. Participants frequently used phones, iPads, and laptops as forms of communication technology with apps such as phone calls, texting, Zoom, Google Meet, FaceTime, X (formerly known as Twitter), and Signal, a secure messaging platform. Participants expressed learning how to use technology from their places of employment or family. Kathy stated “...doing Skype, Zoom, Google Meet, free conference. So, I had a lot of experience logging in, as well as creating meetings.” Some of the participants expressed that they learned technology through family and friends. Carla stated, “My daughter-in-law really ran me through it.” Sharon found learning from others in similar situations helped her learn technology by stating “...I think some of it is just finding a network of people ...that you can mutually learn from each other.”

One similarity among the participants was having family video chats with relatives who lived in different households. Carla stated, “My niece in Switzerland started these family Zoom things.” When asked about how their spouses engaged with video calls, all participants described how their spouses would share a screen with them when engaging in a video call with family members.

Frequency of Communication

The frequency of communication via technology depended on time, personal relationships, and environment. For example, Carla reported calling her grandchildren once a month or waiting for her oldest grandchild to call because “(Grandchild) would always call.” The frequency of communication was influenced by how active grandparents were with using technology, how they felt about using technology, and how often their grandchildren/family members actively reached out to them. Some families formed a norm for how often they called and how they used technology to stay connected. There was a noticeable difference in frequency

and method of communication during and close to the end of the pandemic. During the pandemic, Kathy said that she did video calls with her son's family "once every two to three weeks," and she added, "Every week we would get videos uploaded into Signal so that we could watch her (grandchild) development."

Purpose of Communication

The main reason for grandparents and grandchildren utilizing communication technology during the COVID-19 pandemic was due to the nature of the virus and quarantine orders. Before the COVID-19 pandemic, a phone call was the main method of communication if they could not meet in person. When COVID-19 hit, participants had to find new ways to communicate with their grandchildren, and that was communication technology. Some of the purposes for the communication included assisting with homework, maintaining family relationships, and seeing their grandchildren as they grew. For example, Sharon described herself as "a tutor" when her grandchildren needed help with e-learning due to her academic background; her grandson would also share Google Docs with her to ask her to check how he did on homework.

In regards to maintaining family relationships, Sharon also stated "I want to just connect with them" and "wanted to socialize." Carla stated that she used emails to communicate with her grandchild and other family members because she said she was "just trying to keep in touch." Families often shared pictures and videos of daily activities, like playing sports. When Sharon's grandson moved to college, her grandson showed her his new dorm room via Zoom and Facetime. Kathy used technology to witness how her grandchild developed, stating, "My son sent me a video of him recording her (grandchild) talking to us... in her first-year languages." They shared pictures on social media as Sharon expressed that she "has done Instagram and shared pictures"; she also stated that her grandchildren "would share videos of what they were

doing.” When Sharon could not attend a sports event, her grandchildren “sent live...videos of themselves playing ball.” On the other hand, grandparents’ family members also used technology to keep up with the grandparents’ life events. Carla said: “The family needed to see us too and to assess how (my husband) was doing.” Technology made it possible for families to have large family meetings and private family meetings such as one-on-one FaceTime calls.

Feelings About Communication Technology

Due to the nature of the COVID-19 pandemic, particularly the fast onset, the quarantine orders, and the lives of the participants, grandparents were forced to quickly adopt communication technology to stay connected to their grandchildren. They expressed many feelings regarding the use of the communication technology. The feelings covered a wide range, from frustrations with difficulties using technologies for communication, to feelings of strong gratitude that they could still talk to and see their grandchildren.

Positive Feelings

Although it was not ideal, the participants expressed some positive feelings regarding the use of technology during the pandemic. One commonality amongst the participants was a feeling of gratitude for communication technology during COVID-19. They were all grateful that communication technology existed and was accessible to them. Participants expressed that although they weren’t able to see their grandchildren in person, communication technology allowed them to stay connected with their grandchildren during quarantine. Carla went even as far as to say, “Technology was a lifesaver,” in talking about communication technology use with her grandchildren. Sharon echoed that same point by saying, “We really appreciated having the visual communication, not just the audio.” Kathy also expressed positive feelings about using

technologies for communication saying, “I feel so fortunate to be able to be connected with them.”

Participants also described pleasant memories they were able to have with their grandchildren via communication technology. “She would laugh for no reason and that was just so fun to laugh with her on-screen and just giggle with her,” Kathy said about her toddler-aged grandchild. Sharon explained that she enjoyed watching old videos of her grandchildren playing sports, pre-pandemic, to bring her some joy during the lonely times of quarantine. Due to the pandemic, grandparents had to stay quarantined from loved ones during holidays or special occasions; therefore, they used communication technology to celebrate from a distance. Sharon described a pleasant memory: “We dropped the presents at people's houses, and then we Zoomed.” Kathy attended a virtual birthday party with her granddaughter as she would “call to sing Happy Birthday to each other.”

Negative Feelings

Going from total in-person contact and seeing their grandchildren whenever they wanted to only communicate through a screen was a difficult transition for the participants, accompanied by some negative feelings. The participants talked about times when they tried to communicate via technology with their grandchildren, and it did not go as planned. These technology issues included user errors and internet or WiFi difficulties. Kathy expressed frustration when video calling with her grandchild and children, “...there were a few times we got disconnected.” Two of the participants mentioned that communicating via text or email was not nearly as fast as just talking in person to their grandchildren. Carla went further into her frustrations with texting, describing how sometimes she was unsure if her grandchildren had even seen her text messages or emails. Carla told a story about one of her grandchildren planning a virtual game night where

everyone would play from their homes. Carla stated, “We grandparents were so lost, it wasn’t even funny.” Not being able to work with the communication technology was associated with some very negative feelings for the participants. Sharon explained, “I couldn’t get my image to appear on the screen, I felt like an idiot...”

Grandparents in this study used all sorts of different types of communication technology to stay connected to their grandchildren. Participants would text and email their grandchildren frequently; however, Sharon stated, “But sometimes you just want to see their faces.” Participants mentioned that video calling was better than texting and emailing because they could see their grandchildren’s faces, and their emotions, and read them a little bit better than a message. They enjoyed seeing their faces but it still was not the same as connecting in person. Carla stated, “Technology is a substitute, but it’s not the same.”

Changes Due to Communication Technology Use

Participants described using communication technology with grandchildren before the COVID-19 pandemic, indicating they sporadically used platforms like FaceTime or Zoom; however, it was not used as frequently as during the pandemic. Multiple participants suggested that their interactions with grandchildren differed based on the number of grandchildren they had and the ages of their grandchildren. This varied from having 1 grandchild to 6 grandchildren, ranging in ages 3 years old to 23 years old. One participant described that there is, “certainly going to be a different portrayal of what a video call looks like,” because of age and number of grandchildren.

All participants described how relationships changed with their grandchildren due to communication technology. Sharon stated that communicating with technology has hopefully, “made me a better grandparent with a closer relationship to my grandchildren,” because she has

more contact with them after the pandemic than she did before. Carla stated that the way she spends time with her grandchildren has gotten, “a lot looser and easier,” in the past year, as frequent texting with grandchildren is now the preferred form of communication. Kathy said that while her grandchild was young, “we definitely have been a part of her development years,” because of communication technology when they would have otherwise missed out on this due to distance and the pandemic.

Discussion

The purpose of this study was to describe grandparents’ use of communication technology with grandchildren during COVID-19. Through interviews with three grandparents, we captured a glimpse at how grandparent and grandchildren relationships were impacted due to the COVID-19 pandemic, and how communication technology played a role in that relationship.

The frequency of communication was determined by the relationship between the grandparents and grandchildren. Duflos et al. (2021) stated that grandparents and grandchildren have a greater frequency of contact when they present a greater affectual solidarity. COVID-19 was an influential factor that either positively or negatively impacted affectual solidarity. McDarby et al. (2021) noted that grandparents and grandchildren increased their frequency of communication during the COVID-19 pandemic. Participants of this study all reported having a great affectual solidarity with their grandchildren, and they stated that they explored using technologies to maintain or increase the frequency of contact with their grandchildren.

Feelings about Communication Technology

According to Weaver et al. (2022), older adults felt as though interactions via technology were less genuine compared to face-to-face interactions. Video chat communication technology gave grandparents the chance to see their grandchildren’s faces and emotions, not just their

voices. However, this was still not good enough (Daly, et al., 2021). Our participants described similar feelings, including that technology did not allow for the same close interaction as in-person contact.

Research also identifies some technology challenges that contribute to the negative feelings older adults have towards communication technology. Strouse et al. (2021) indicated examples like internet connection issues, low-quality internet, and other glitches. Participants in the current study also experienced some of these same technical issues, contributing to their frustrations with utilizing communication technology. While there is existing literature indicating the negative feelings that grandparents had regarding communication technology during COVID-19, there is little current evidence about grandparents' positive feelings toward communication technology. One author found that video chat enabled cultural exchange between grandparents and their grandchildren, resulting in positive interactions (Piper, et al., 2023). Participants in this study expressed positive feelings as well as gratitude for the ability to stay connected.

Changes Due to Communication Technology Use

Current research reports that technology was an adaptation to social distancing to prevent grandparents from losing time with grandchildren (Greenwood-Hickman, et al., 2021).

Grandparents in our study described using communication technology because they felt like it was mandatory due to restrictions during the pandemic, in addition to wanting time with their grandchildren. Existing literature indicates an increase in internet, social media, and technology use in older adults during the COVID-19 pandemic, making communication technology a primary form of communication (Freedman, Hu, & Kasper, 2021; Greenwood-Hickman, et al., 2021; McDarby, Ju, & Carpenter, 2021). Participants in the current study also reflected on an

increase in communication technology use due to social distancing protocol during the pandemic.

Finally, current evidence states that maintaining grandparent and grandchild connections during the COVID-19 pandemic changed these relationships, leading to emotional closeness and a higher frequency of contact between grandparents and grandchildren (Duflos & Giraudeau, 2021; Glazer, 2020; Pew Research Center, 2021). In our study, participants described how increased contact with grandchildren improved their relationships. For example, some participants were more involved in their grandchildren's school participation, some reported joking and laughing on video calls with their grandchildren without having a traditional conversation, and some stated that they could observe their grandchildren's developmental stages.

Limitations

This study's most apparent disadvantage is its small sample size and low demographic variability. There were only three participants involved in this study, and all three participants were Caucasian grandmothers. The opinions of using technology to communicate with grandchildren may have varied between grandmothers and grandfathers. Moreover, other racial groups may present different views and experiences of using communication technologies. A larger sample size could provide more information to help researchers better understand grandparents' use of technology for communication and provide more transferable findings.

Additionally, all participants had relatively easy access to technologies for communication with grandchildren; future study is likely needed to further evaluate grandparents of different socioeconomic backgrounds since some people may not have access to technologies and face more barriers to establishing online communication with their grandchildren. The

timing of the research contributes to some limitations. The fact that this study was conducted during the end phase of the pandemic contributed to variations in the responses we may have received from participants before and during the height of the pandemic.

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