

Study on the Social Media Communication with Loneliness among Community-Dwelling Older Adults

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ABSTRACT

Social media communication enables senior citizens to keep up social and emotional ties. The purpose of this study was to investigate the relationship between older persons living in community settings and their use of social media as a communication tool, as well as their levels of loneliness and strong social ties. We also looked at the mediating effects of social connection and support for the purposes of this study. For each database, specific search strategies were developed in order to do a comprehensive scoping evaluation of randomized controlled trials. Using the methodological techniques described in the Cochrane Handbook for Systematic Reviewers, a systematic scoping review was carried out following the establishment of the selection criteria. The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) format was used to report the findings. The study's conclusions suggest that one element of an intervention to lessen the detrimental effects of loneliness on older individuals might be enhanced social media usage and engagement among older adults.

Key Words : Loneliness, Social support, Older adult, Social media

INTRODUCTION

Older people may experience feelings of loneliness and isolation due to a variety of circumstances, including moving into care homes, losing friends and relatives, being physically remote from personal social contacts, and experiencing a decline in friendships. In addition, the numbers (Victor and Bowling, 2012 and Ong *et al.*, 2016). function as warning signs. The propensity to keep social distance in order to lower the danger of contracting a coronavirus infection may have contributed to the rise in the percentage of older people who reported feeling lonely during the 2019 coronavirus disease (COVID-19) pandemic (Armitage and Nellums, 2020). (6). Loneliness has long been linked to a number of conditions that impact an individual's physical and mental well-being (Holt-Lunstad *et al.*, 2015). An increased risk of high blood pressure, heart disease, obesity, a compromised immune system, anxiety, depression, cognitive decline, and even

death are some of these challenging illnesses. Additionally, there is a link between anxiety and depression and a higher chance of developing Alzheimer's disease. Government representatives should prioritize preventing and combatting social isolation among the elderly due to the rising proportion of older people in the population (Dickens *et al.*, 2011).

The use of social media platforms to maintain relationships is one example of how individuals over the age of 50 are progressively integrating the internet into their daily lives. There is a possibility that this pattern will persist. According to the reports of the year 2019, 2/3rd of the users more than age 65 in US were using internet with 40% of those users also presently using social media. Regardless of the fact that the young age groups basically use more internet as compare to old age groups. Younger age groups consume more, with consumption rates of 69% for those aged 50 to 64, 82% for those aged 30 to 49, and 90% for those aged 18 to 29 (Pew Research

Center, 2019). The highest rates are among the youngest age categories. People who are older have far lower rates of these items. When it comes to substance usage, younger age groups have a far lower prevalence than older age groups. A type of communication technology known as “social media” allows users to interact with one another via social media networking websites (SNS). This category of communication technologies is sometimes referred to as “social media.” The online applications WhatsApp, WeChat, Skype, and Weibo are classified as social media. Each of these applications is based on the Internet. Each of these technologies offers unprecedented accessibility and scalability to its users. Users of social networking sites have access to a platform that allows them to establish profiles and interact with other users of the same age and gender in their social network. Users are able to communicate with one another via e-mail, instant messaging, video, and the phone (Kaplan and Haenlein, 2010). Generally people are able to regulate the connection emotionally with their friends and family despite their physical limitations or location they face as a result of the internet platforms that enable people to communicate with one another, usually over vast distances. This is done so that people may communicate with one another, typically across vast distances, using internet platforms. Despite the fact that people are frequently separated by great distances, this is still possible. This is due to the fact that people can now communicate regardless of how physically distant they are from one another (Segrin and Flora, 2005).

The findings of the research that has been conducted to investigate the link between using social networking sites and feelings of isolation have been contradictory. This is due to how the research was conducted. Utilizing social networking sites and the internet in general, families are better able to maintain relationships and remain in contact (Hutto *et al.*, 2015 and Teo *et al.*, 2019). On the other hand, the development of Internet technology has given people the ability to reduce or eliminate their participation in real-world social interactions and to escape reality by immersing themselves in a virtual universe. This is due to the fact that the internet has made it easier for people to eliminate or drastically reduce their participation in in-person social relationships. As a direct result, people have the ability to completely eliminate or substantially reduce their risk of experiencing feelings of loneliness (Meshi *et al.*, 2020). The risk of experiencing feelings of social isolation and loneliness

may increase as a result of this fact. When analyzing the correlations between loneliness and these behaviors (such as seeking information, seeking entertainment, or communicating with others) among older people, however, previous research rarely distinguished between individuals using the internet and social media for their intended purposes. This is the case because it was assumed that all internet and social media users were seeking the same things.

For eight years, empirical data showing the connection between Internet use and decreased loneliness was gathered using the Health and Retirement Study (HRS), a nationally representative sample of Americans over 50 who lived in their communities. People who engaged in social activities and had at least one close buddy who was over 50 made up the sample. A combination of tables, charts, and graphs were used to display this data. These results suggest that utilizing the Internet helps lessen emotions of isolation and loneliness. The Health and Retirement Study (HRS), a recent addition to the body of knowledge on the connection between internet use and symptoms of loneliness reported by the elderly, served as the basis for this investigation. The HRS investigated whether or not there was a connection between older individuals’ reported feelings of loneliness and their use of the Internet. In addition, the study shed light on the potential moderating role that interpersonal connections may play. The study failed to consider the significance of social support in reducing feelings of loneliness caused by the use of digital devices. It may be more difficult to comprehend the complex relationships that exist between using the Internet and loneliness as a result of these two disadvantages. Due to these two limitations, it may be difficult for us to comprehend the significant relationships that exist between the Internet age and feelings of loneliness.

Objective of the Study:

The main aim of this paper is to explain about the relation or connection between social media communication with close social tries and loneliness among older adults of the community.

Social Media and Loneliness:

The subjective sense of loneliness is characterized by uneasy thoughts about inappropriate levels and types of social connection, as well as assessments of inadequate social support and companionship (Cornwell,

and Waite, 2009). Loneliness may also be defined as the feeling of lacking sufficient social support and companionship. When we speak of loneliness, we are referring to the feeling of having unsettling beliefs about the wrong types and levels of social connection. According to the “Need to Belong” theory (Baumeister and Leary, 1995), individuals are predisposed to seek out safe and enjoyable interpersonal relationships because they believe doing so will facilitate the development of a sense of belonging. In 1995, Baumeister and Leary had a brainstorming session where they came up with the idea that would ultimately develop into this concept. If these social expectations are not met, there is a significant likelihood that the brain’s reward system will not be activated. This is an extremely probable scenario. This is due to the fact that social expectations are determined by what other people perceive one should do. As a result, the individual who is suffering may experience intense feelings of loneliness.

The expansion of social media has made the use of hashtags as a means of communication a more contemporary approach. As a direct result, people are able to speak with one another, enabling them to maintain their existing social relationships. The reward system in the brain may be activated by social media use, according to studies (Meshi *et al.*, 2020). Numerous studies have shown that maintaining relationships with family members who can provide emotional support through internet communication may help elderly people feel less lonely

and alone (Szabo *et al.*, 2019). This is due to the fact that communication via the Internet makes staying in touch with people who live in various areas much simpler. There may be a problem with people’s tendency to isolate themselves online, which, according to a number of experts who advise against excessive use of the internet and social networking sites (SNS), can harm interpersonal relationships and potentially exacerbate feelings of loneliness. People should be discouraged from using the internet and social media excessively for a variety of reasons (Turkle, 2012), including their wish to maintain their anonymity while engaging in online activities. For these reasons, people should be discouraged from spending an inordinate amount of time on the internet and social media. The scientific data regarding the benefits and drawbacks of utilizing the internet and social networking sites at this time is equivocal, particularly for individuals who are approaching retirement age. Particularly affected are individuals who are approaching the age at which they can resign. People who are in their 50s and 60s are particularly affected by this at this time.

It’s conceivable that the disparate results are due to the various ways that people of a certain age use the services made available by the internet. The US social media age correlates with increased levels of loneliness (Shakya and Christakis, 2017), and this correlation is strongest when social media is used predominantly or primarily for educational and recreational purposes. In fact, according to (Meshi *et al.*, 2020; Szabo *et al.*, 2019

Sr. No.	Topic	Objectives	Results/ findings	Author details
1.	Social media and loneliness among community-dwelling older adults	To determine the impact made by social media on adults	According to reports, seniors who suffer from Diogenes syndrome are also more likely to develop dementia or another psychotic disorder in their later years. There was no evidence that this patient suffered from a neurodegenerative disorder. The results of the psychiatric evaluation revealed no symptoms of schizophrenia, including hallucinations, delusions, or disordered thinking.	Aarts (2018)
2.	Social Media Communication and Loneliness Among Older Adults: The Mediating Roles of Social Support and Social Contact	This study examined how social media use affects loneliness and closeness in community-dwelling older individuals. The study also explored social support and contact as mediators.	The findings of the study suggested that engaging in regular contact via social media was related with generally reduced degrees of social isolation. This result was obtained after taking into account the various degrees of loneliness experienced. The interplay that occurs between an individual's impression of their own isolation and the social media support they receive serves as a mediator of the relationship between perceived loneliness and social media communication. Therefore, communication through social media was linked to higher levels of perceived social support and more opportunities for social engagement. There was a correlation found between these two characteristics and lower levels of loneliness experienced by senior persons.	Zhang <i>et al.</i> (2021)

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3.	The Ties That Bind: How Online and Offline Interactions Affect Social Support and Quality of Life for Older Adults	This study examined how social media use affects loneliness and closeness in community-dwelling older individuals. The study also explored social support and contact as mediators.	The findings indicate that the social interaction studies, including online and offline social interaction, examined the frequency of various forms of social interaction among older adults during COVID-19 and their evaluations of these encounters. In this study, Schuster and Cotten investigate whether social media use may be related to a number of senior quality of life indicators using a national sample of people 65 and older. The researchers examine whether or not using social media may be associated with a tendency to feel lonely. Each of these studies contributes new insights into the ways in which older adults interact and communicate with social connections, as well as the potential effects of the various interaction modes. This information may be useful to organizations working to enhance older adults' social participation in general, as well as in situations where social stressors such as pandemics may exacerbate social isolation.	Shelia (2021)
4.	Impact of digital social media on the perception of loneliness and social isolation in older adults	To develop more idea about the utilization of social media and the point of responsibility in older age groups.	Eleven papers were included and divided into three categories based on the various types of technologies employed. The first group, titled "the use of the Internet," included social networking websites, the internet, and applications. Smartphones, tablets, and iPads were included in the second group, titled "Communication Devices." The use of interpersonal digital era forms of communication, including video calls and emails, was included in the third group, titled "types of communication." The utilization of social media to alleviate older individuals' sentiments of loneliness and/or social isolation yielded excellent results (63.6%).	Kusumota <i>et al.</i> (2022).
5.	Effectiveness of Social Media as a tool of communication and its potential for technology enabled connections: A micro-level study	To explain about the effect of social media as a means of communication on tool and To analyze the important use of social media as a communication tool.	The presented data can be meticulously analyzed to demonstrate that social media has in fact done an excellent job of bridging the communication gap between different groups of people. Due to the abundance of social media tools, individuals can interact with one another in the shortest time feasible. As a result of the proliferation of social media, the nature of our social life may endure significant changes, both on the level of interpersonal relationships and communities. It is already evident that young people, who constitute the majority of social media users, are altering their current interaction patterns and social relationships significantly. This is especially true for young people, who utilize social media the most. This allows one to contend that the growth of social media has been nothing short of remarkable. This is evident from the fact that 62.5 percent of respondents in Guwahati believe that social media place is a communication tool, while 37.5 percent have a negative opinion on the subject. The most popular main social media tool among respondents is social networking sites, which account for 25 percent of the total. Wikis account for 16 percent of all traffic, followed by video sharing, which accounts for 13 percent, and microblogging, which accounts for 12 and a half per cent.	Trisha (2012)
6.	Social networking site usage: A systematic review of its relationship with social isolation, loneliness, and depression among older adults	Basic usage of social networking sites; A methodical review of the relationship with social media, loneliness and depression among older age groups.	Fifteen papers in all, 10 observational and five experimental investigations, were included. The research were carried out using two different methodologies. Ten studies explored depression, five studies examined loneliness and social isolation, and five studies synthesized the findings of the two research groups. Merely a few of experimental investigations were able to corroborate the observational research' conclusions that SNS usage was linked to decreased levels of loneliness and sadness. This may be because the study of social networking site usage is still in its infancy.	Wiwatkunupakarn <i>et al.</i> (2021)

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7.	Social media and loneliness among community - dwelling older adults	The main and basic purpose of the study was to analyze about what types of attitudes older age groups have towards social media.	There was a qualitative study conducted, and semi-structured interviews were the only method used. In the study population were included elderly people who lived in Dutch communities and were at least 60 years old. This study only included participants who actively utilized social media. On the basis of the available review of literature, The interview guide was utilized to ensure that all interviews covered the same set of themes. These issues are divided into the categories listed below: The relationship between social media use and well-being. The verbatim transcripts of the recorded interviews were analyzed using both the open coding method and the axial coding method. The (more seasoned) scholars then debated how the main themes should be interpreted after comparing and contrasting all of the codes into themes. Because saturation had been achieved, there were no longer any recurring themes. The participants were each sent an informational letter, and their written informed assent was eventually requested and received in return.	Sil (2018)
8.	The Effect of Information and Communication Technology and Social Networking Site Use on Older People's Well-Being in Relation to Loneliness: Review of Experimental Studies	The aims of this review are to contrast and compare research designs (sampling and recruitment, evaluation tools, interventions) and the findings of these studies and highlight their limitations.	The analysis of the selected articles showed that: (1) ICT is positively but weakly related to the various measures of older people's well-being and loneliness; (2) the studies under review lack a sound experimental design; and (3) the main limitations of these studies lie in the rigor of sampling in the sampling method and recruitment strategy.	Casanova <i>et al.</i> (2021)
9.	Internet Use and Loneliness of Older Adults Over Time: The Mediating Effect of Social Contact	The current paper aims to test the longitudinal association of internet use and loneliness and to theorize the relationship by examining the mediating effect of social contact.	Internet usage was associated with less perceived loneliness over a period of 8 years ($b = 0.049$, $p = .001$), which was associated with more social contact ($b = 0.285$, $p = .001$). The total negative effect of internet use on loneliness was -0.060 , and the mediated loneliness was -0.025 . This scale ranges from 0 to 2, where 0 represents never feeling lonely and 2 represents feeling lonely frequently.	Kexin <i>et al.</i> (2020)
10.	Social Media and Loneliness - Forever connected?	this study examined associations between reported Facebook usage patterns and loneliness among Ariel University students	Our study revealed that the L score for loneliness had a high level of internal consistency, measuring 0.90. The loneliness score correlated significantly with additional loneliness-related items 4.1 and 4.2 ($r_s = 0.32$ and 0.19 , $t = 4.25$ and 2.36 , and $p = 0.00002$ and 0.01 respectively). The results of the point biserial correlation test indicated that the relationships between items 4.3 and 4.4 were not statistically significant (for item 4.3, the r_s value was 0.07 and the p value was 0.56 ; for item 4.4, the p value in the test was 0.20 and the rpb value was 0.11). With scores of 0.86 and 0.85 for internal consistency, respectively, both FB and FB' demonstrated high levels. Therefore, it is crucial for educators to determine whether social media use contributes to or is a result of loneliness.	Roman <i>et al.</i> (2019)

and Teo *et al.*, 2019), using technology such as the Internet for social activities such as focused communication may increase feelings of social connection satisfaction and decrease feelings of loneliness (Meshi *et al.*, 2020; Szabo

et al., 2019 and Teo *et al.*, 2019).

Social Contexts as Mediators:

We examined two distinct hypotheses to explain the

relationship between using social media as a form of communication and feeling lonely. The first is the feeling of having other people's support, and the second is communicating with them face to face. By decreasing their likelihood of forming supportive relationships with other members of their social networks, this practice may help older people feel less lonely. This may enhance their health in general. This is due to the increased propensity for older people to make these connections while using social media as a means of communication.

Social Support:

It has been proposed that social assistance can be divided into two distinct categories: support that is actually received and support that is perceived to be accessible when needed (Wills and Shinar, 2000). Multiple studies have led researchers to the conclusion that perceived social support has a far greater impact on feelings of loneliness than genuine social support (Haber *et al.*, 2007). The notion of perceived social support is therefore an essential component of the current research.

Older individuals benefit from using social media to maintain close connections across space and time, which increases their sense of support from their social networks and correlates positively with perceived social support (Chen and Schulz, 2016). The notion of social capital, a well-known theoretical framework concerning the formation and maintenance of social ties, can be used to explain the current situation (Putnam, 2000). Two aspects of social capital that are relevant to this discussion are its bonding and bridging capabilities. The term "bonding social capital" refers to close relationships, such as those between family members or close friends who frequently provide emotional support to one another. These types of social connections, such as those between close friends and members of the same family, are examples. Social capital that can be used for bridging can be developed through relationships with individuals who have fewer connections but access to a variety of resources and are likely from a variety of backgrounds (Simon and Schuster, 1999). Using social media, older individuals can create feelings of intimacy and connection, discuss significant life events, and track the whereabouts of friends and family, all of which increase social capital and strengthen ties. Using social media allows not only close friends and family to converse informally with one another, but also acquaintances and community members, which can contribute to the growth of social capital. To reduce

feelings of loneliness and isolation, both types of social capital provide individuals with access to vital support networks (Heo *et al.*, 2015).

Social Contact:

Social media communication may exacerbate feelings of isolation, but in-person interactions with other social network users, phone calls, written letters and emails, and all of these other forms of communication can serve to reduce feelings of isolation. There may be a relationship between social media communication and feelings of isolation. The usage of social media may involve the use of these other, more conventional forms of communication (Szabo *et al.*, 2019). In a study of Facebook users over the age of 50, participants reported that while they used the service to stay in contact with family and friends, they relied on phone calls or in-person meetings to discuss personal matters (Erickson, 2011). This was shown to be the case in spite of the fact that people did use Facebook. Moreover, for people in their middle years or older, face-to-face social interaction continues to be the preferred mode of communication. According to (Szabo *et al.*, 2019), social media, and video conversations in particular, are crucial for maintaining social connectivity when people are unable to meet in person for personal reasons. This is made possible by social media, which facilitates communication between geographically dispersed people. Participating in communication activities via social media can serve as a supplement, a stimulus, or even a "precursor" to offline relationships. In addition, it facilitates the maintenance and expansion of preexisting social connections. Through participation in communication activities via social media, it is possible to preserve and strengthen social bonds that have already been formed (Hutto *et al.*, 2015).

Numerous empirical studies (Heo *et al.*, 2015 and Yu *et al.*, 2020) have highlighted the role that social interaction and support play as mediators in the relationship between Internet use and feelings of loneliness and isolation (Heo *et al.*, 2015). These studies have shown that social engagement and support are crucial in order to reduce feelings of loneliness and isolation. When these studies were conducted, neither the objective of the examined behavior nor the quantity of time spent online were factors in measuring internet use. Because of this, our understanding of the complex relationship between internet usage and loneliness is limited. In the few studies that have been conducted to examine the relationship

between social internet use and the wellbeing of older adults, a correlation between social internet use and reduced loneliness has also been found; however, these studies did not investigate the underlying mechanisms that may help to explain this relationship. The studies conducted found a correlation between using social media and experiencing less loneliness. Because the studies did not investigate the underlying mechanisms that would explain this association (Szabo *et al.*, 2019), this is the case. This result is the consequence of this deficit.

METHODOLOGY

For the purpose of reporting the findings, this systematic review complied with the methodological standards outlined in the Cochrane Handbook for Systematic Reviewers as well as the reporting requirements outlined in the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) (Erickson, 2011). With the assistance of a council of experts from a variety of fields, it will be possible to develop research concepts, as well as a research strategy, research methodology, and analytic plan. The National Institute of Health Research (NIHR) (SDO) Service Delivery and Organization Research and Development Programme has developed a methodological framework that will be utilized in the majority of the proposed research. Defining the operational definitions and conceptual boundaries of the topic is the initial step in developing the framework for the methodological approach. The next step of the process will require that this be carried out in order to construct a framework based on the foundation that has been laid. After completing this step, a narrative review comprising an organized summary of the relevant body of literature is produced. In contrast, a detailed examination will not be conducted on purpose.

Search Strategy:

Beginning with the start of the project and continuing until 2011, the search will be undertaken using electronic databases such as EMBASE, CINAHL (EBSCO), AgeLine (EBSCO), PsycINFO (Ovid), and CENTRAL (Cochrane Library-Wiley), using specific algorithms for each database. The purpose of the search is to identify relevant references to previously published clinical trials.

Study Selection:

Throughout the investigation, standardized and

previously proven forms will be utilized to filter the citations, the selected papers, and the data gathered from the included trials. Working independently, each author selected a two-step procedure for including clinical trial papers in the review that satisfy the inclusion criteria. In the preliminary stages of the research, the title and abstract of each reference will be evaluated to determine whether or not it satisfies the inclusion criteria. In this procedure, the full texts of all relevant citations will be evaluated independently and simultaneously. Before the full-text screening, there will be a preliminary screening, also known as a pilot screening. Conflicts will be resolved through discussion and guidance from a third review author if multiple opinions are expressed throughout the review.

Eligibility Criteria :

Inclusion Criteria:

- Reviews that make use of systematic, pre-planned procedures to synthesize research studies that address a clearly defined topic or research issue (which could consist of either quantitative, qualitative, or mixed methodology). Reviews can be either quantitative, qualitative, or mixed.
- Interventions that are provided in any format (such as face to face, online, group, text, or telephone) and that are described as either Motivational Interviewing or Motivational Enhancement Therapy (MET)
- English language
- Interventions that concentrated on working with adults.

Exclusion Criteria:

- Letters, commentaries, professional assessments, theoretical works, and “non-systematic” or unstructured evaluations, such as those that lacked a goal and failed to explicitly explain the search strategy, selection criteria, and quality assessment techniques that were utilized. “Non-systematic” or unstructured evaluations, such as those that lacked a goal and failed to explicitly outline the search strategy, selection criteria, and quality assessment techniques Unstructured reviews, often known as “non-systematic” evaluations, might come in the form of letters, comments, expert opinions, theoretical work, or

unstructured reviews.

ANALYSIS

The subject of a comprehensive analysis by a researcher was the relationship between social media communication and tight ties, as well as loneliness, among older community-dwellers. The information for this study was compiled by the researcher using findings from a variety of studies. Papers that had already been published and were available in the public domain served as the primary sources for this systematic review because they were readily accessible and had been reviewed by experts. As a consequence, it was no longer eligible to be reviewed by an ethics board.

Conclusion:

The study's findings suggest that increasing age engagement and social support among senior persons through the use of social media could be one component of an intervention to reduce the negative effects of loneliness on older people. Focusing on the role of social interaction and perceived social support as mediators, the analysis uncovered evidence to explain the relationship between the two variables. The findings of this study have significant implications for practitioners and governments who are seeking workable solutions to the loneliness problem, which is unquestionably worsening as a result of the proliferation of COVID-19. As a result of the significant ramifications of the study's findings, individuals are searching for practical ways to combat loneliness in their daily lives. Especially if they resided in remote areas and were socially isolated from other community members, the elderly had a much more difficult time with this. This was especially difficult for people who were required to remain at home and maintain a distance from others. Given the existing circumstances, it is impossible to emphasize the significance of pursuing additional study. Those who were socially isolated at home but lacked the resources or technical know-how to use online technologies to remedy the situation. Researchers should take advantage of the fact that many individuals over the age of 65 are beginning to use social media communication for the first time in order to collect and analyze more detailed data on the effects of social media communication on society and health and to gain new insights. This could be accomplished by capitalizing on the fact that many people over the age of 65 are beginning to use social media for

communication. In addition, a growing number of seniors are beginning to use social media for communication.

REFERENCES

- Aarts, Sil. (2018). Social media and loneliness among community-dwelling older adults. *Internat. J. Geriatric Psychiatry*, **33** : 554-555. 10.1002/gps.4769.
- Armitage, R. and Nellums, L.B. (2020). COVID-19 and the consequences of isolating the elderly. *The Lancet Public Health*, **5**(5) : e256. Doi: 10.1016/S2468-2667(20)30061-X.
- Baumeister, R.F. and Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, **117**(3) : 497–529. doi:10.1037/0033-2909.117.3.497.
- Casanova, G., Zaccaria, D., Rolandi, E. and Guaita, A. (2021). The Effect of Information and Communication Technology and Social Networking Site Use on Older People's Well-Being in Relation to Loneliness: Review of Experimental Studies. *J. Med. Internet. Res.*, **23**(3):e23588. Doi: 10.2196/23588
- Chen, Y.R. and Schulz, P. J. (2016). The effect of information communication technology interventions on reducing social isolation in the elderly: *A Systematic Review. J. Medical Internet. Res.*, **18**(1) : e18. doi:10.2196/jmir.4596.
- Clay, R.A. (2020). COVID-19 isn't just a danger to older people's physical health. <https://www.apa.org/news/apa/2020/03/covid-19-danger-physical-health>.
- Cornwell, E.Y. and Waite, L.J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *J. Health & Social Behavior*, **50**(1) : 31–48. Doi: 10.1177/002214650905000103.
- Dickens, A.P., Richards, S.H., Greaves, C.J. and Campbell, J.L. (2011). Interventions targeting social isolation in older people: Asystematic review. *BMC Public Health*, **11** : 647. Doi: 10.1186/1471-2458-11-647.
- Erickson, L.B. (2011). Social media, social capital, and seniors: The impact of Facebook on bonding and bridging social capital of individuals over 65. Proceedings of the 17th Americas Conference on Information Systems, AMCIS 2011. https://aisel.aisnet.org/amcis2011_submissions/85.
- Haber, M.G., Cohen, J.L., Lucas, T. and Baltes, B.B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American J. Community Psychol.*, **39**(1-2) : 133–144. Doi: 10.1007/s10464-007-9100-9.
- Heo, J., Chun, S., Lee, S., Lee, K.H. and Kim, J. (2015). Internet use and well-being in older adults. *Cyberpsychology, Behavior & Social Networking*, **18**(5) : 268–272. Doi:

10.1089/cyber.2014.0549.

- Holt-Lunstad, J., Smith, T.B., Baker, M., Harris, T. and Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science*, **10**(2) : 227–237. Doi: 10.1177/1745691614568352.
- Hutto, C.J., Bell, C., Farmer, S., Fausset, C., Harley, L., Nguyen, J. and Fain, B. (2015). Social media gerontology: Understanding social media usage among older adults. *Web Intelligence*, **13**(1) : 69–87. Doi: 10.3233/WEB-150310.
- Kaplan, A.M. and Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, **53**(1) : 59–68. Doi: 10.1016/j.bushor.2009.09.003.
- Kexin, Yu, Shinyi, Wu and Iris, Chi (2020), Internet Use and Loneliness of Older Adults Over Time: The Mediating Effect of Social Contact; doi:10.1093/geronb/gbaa004
- Kusumota, L., Diniz, M.A.A., Ribeiro, R.M., Silva, I.L.C., Figueira, A.L.G., Rodrigues F.R. *et al.* (2022). Impact of digital social media on the perception of loneliness and social isolation in older adults. *Rev. Latino-Am. Enfermagem*, **30**:e3526. Available in: URL: <https://doi.org/10.1590/1518-8345.5641.3526>
- Meshi, D., Cotten, S.R. and Bender, A.R. (2020). Problematic social media use and perceived social isolation in older adults: Across-sectional study. *Gerontology*, **66**(2) : 160–168. Doi: 10.1159/000502577.
- Ong, A.D., Uchino, B.N. and Wethington, E. (2016). Loneliness and health in older adults: A mini-review and synthesis. *Gerontology*, **62**(4) : 443–449. Doi: 10.1159/000441651.
- Pew Research Center (2019). Social media fact sheet. <https://www.pewresearch.org/internet/fact-sheet/social-media/>
- Putnam, R.D. (2000). Bowling alone: The collapse and revival of American community.
- Roman, Yavich, Nitza, Davidovitch I and Zeev Frenkel (2019). Social Media and Loneliness - Forever connected?; *Higher Education Studies*; **9** (2); 2019 ISSN 1925-4741 E-ISSN 1925-475X
- Segrin, C. and Flora, J. (2005). Family communication. Lawrence Erlbaum.
- Shakya, H.B. and Christakis, N.A. (2017). Association of Facebook use with compromised well-being: A longitudinal study. *American J. Epidemiology*, **185**(3) : 203–211. doi:10.1093/aje/kww189.
- Shelia Cotten (2021). The Ties That Bind: How Online and Offline Interactions Affect Social Support and Quality of Life for Older Adults; Vol **5** (Supplement_1): 301-301
- Sil Aarts (2018). Social media and loneliness among community-dwelling older adults. *Internat. J. Geriatr Psychiatry*, **33** : 553–558. DOI 10.1002/gps.4779
- Simon and Schuster. Lin, N. (1999). Building a network theory of social capital. *Connections*, **22**(1) : 28-51.
- Szabo, A., Allen, J., Stephens, C. and Alpass, F. (2019). Longitudinal analysis of the relationship between purposes of internet use and well-being among older adults. *The Gerontologist*, **59**(1) : 58–68. doi:10.1093/geront/gny036.
- Teo, A.R., Markwardt, S. and Hinton, L. (2019). Using Skype to beat the blues: Longitudinal data from a national representative sample. *The American J. Geriatric Psychiatry*, **27**(3) : 254–262. doi:10.1016/j.jagp.2018.10.014.
- Trisha Dowerah Baruah (2012). Effectiveness of Social Media as a tool of communication and its potential for technology enabled connections: A micro-level study. *Internat. J. Scientific & Research Publications*, **2** (5), May 2012 ISSN 2250-3153
- Turkle, S. (2012). Alone together: Why we expect more from technology and less from each other. Basic Books.
- Victor, C.R. and Bowling, A. (2012). A longitudinal analysis of loneliness among older people in Great Britain. *J. Psychology*, **146**(3) : 313–331. doi:10.1080/00223980.2011.609572.
- Wills, T.A. and Shinar, O. (2000). Measuring perceived and received social support. In S. Cohen, L. G. Underwood and B. H. Gottlieb (Eds.), *Social support measurement and intervention: A guide for health and social scientists* (pp. 86–135). Oxford University Press.
- Wiwatkunupakarn, N., Pateekhum, C., Aramrat, C., Jirapornchaoren, W., Pinyopornpanish, K. and Angkurawaranon, C. (2021). Social networking site usage: A systematic review of its relationship with social isolation, loneliness, and depression among older adults. *Aging & Mental Health*, **26** : 1318 - 1326.
- Yu, K., Wu, S. and Chi, I. (2020). Internet use and loneliness of older adults over time: The mediating effect of social contact. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*. Advance online publication. doi:10.1093/geronb/gbaa004.
- Zhang, Kunyu, Kim, Kyungmin, Silverstein, Nina, Song, Qian and Burr, Jeffrey. (2021). Social Media Communication and Loneliness Among Older Adults: The Mediating Roles of Social Support and Social Contact. *The Gerontologist*, **61**. 888-896. 10.1093/geront/gnaa197.
