

Internet Use for Older Adults during COVID-19 Pandemic

Subjects: **Others**

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Older adults were advised to avoid social activities during the outbreak of COVID-19. Consequently, they no longer received the social and emotional support they had gained from such activities. Internet use might be a solution to remedy the situation. The research revealed that Internet use for communication purposes seems to be associated with better mental health in older adults during the COVID-19 pandemic.

COVID-19

Internet use

mental health

older adults

social media

1. COVID-19 Pandemic and Older Adults

Coronavirus Disease 2019 (COVID-19) has impacted the world since December 2019. Due to the absence of effective medicines and the varied vaccination rate across different countries during the initial occurrence of the pandemic, non-pharmacological interventions such as social distancing, wearing a face mask, frequent handwashing, and home quarantine were deemed the only solutions to mitigate the spread of the COVID-19 virus. Although non-pharmacology interventions such as social distancing and home quarantine have effectively reduced the risk of COVID-19 infection, the interventions also introduced negative psychological impacts to society ^[1].

Older adults were the most affected and vulnerable group during the outbreak of the COVID-19 pandemic as they have been, and continue to be, considered at risk for severe complications and mortality from COVID-19 infection ^[2]. Due to their vulnerability, older adults were advised to stay at home and avoid social activities as well as non-essential social interactions. However, due to these restrictions, the older people no longer received the social and emotional support that they had previously gained from social activities and interactions. Consequently, older people are at a higher risk of developing mental health issues such as loneliness, social isolation, and depression throughout the pandemic period ^{[3][4]}. According to Polenick and colleagues, in a sample of 701 older adults aged 50 and above living with morbidity from the United States, more than half (66.4%) of them had moderate to severe levels of loneliness. Other COVID-19 related psychological disturbances reported in this research were anxiety symptoms, excessive worrying about COVID-19 infection, and financial difficulties ^[5]. According to a study in Switzerland, the prevalence of loneliness in older people increased after the implementation of physical distancing and factors associated with loneliness in older adults were being female, poverty, living alone, individuals with no children, individuals unsatisfied with their contact with neighbours, and individuals interviewed after the physical distancing recommendations ^[6]. Furthermore, in London, a total of 12.8% of older adults reported feeling worse on the depression symptoms, and 12.3% reported feeling worse on the anxiety symptoms during the national

lockdown period. Factors associated with high depressive and anxiety symptoms were being female, younger age, non-married, disturbed sleep pattern, feelings of loneliness, and living alone [7].

2. Internet Use and Mental Health in Older Adults

Internet use became a trend during and after the COVID-19 pandemic, as most services have now gone online. In other words, people can now enjoy the convenience of grocery shopping, managing their finance, paying bills, working from home, and casually interacting with others online without leaving the house. Internet usage has risen from 40% to 100% compared to the pre-lockdown period [8]. In addition, video-conferencing services had a ten times increase in use, and delivery services had a 30% increase [8]. However, older adults are not in the age group that could reap the maximum benefits from Internet use as they are deemed not technology savvy and lack digital literacy [9][10]. The Internet, together with electronic gadgets, could be the solution to continue social interaction and support for older people during the pandemic. Most social technologies are now freely available, allowing people to virtually connect despite the social restrictions posted due to the pandemic.

The previous literature on the relationship between Internet use and mental health in older persons were inconclusive. For example, in England, Internet use for communication purposes was associated with lower depressive symptoms and higher life satisfaction, whereas Internet use for information seeking was associated with lower life satisfaction [11]. In contrast, a longitudinal study in China concluded that Internet use was associated with the increased incidence of depressive symptoms in older adults and the negative impacts on mental health were more evident in women, the young and middle-aged, those with high-income, less educated, and living with others [12]. The different findings could be attributed to the different purposes of Internet use adopted by older persons.

3. The Comprehensive Measurement of Internet Use

The present research identified several important elements that should be included in future studies, which are frequency (or duration) of using the Internet, purpose of using the Internet, frequency (or duration) of each purpose, and number(s) of social media accounts. There are no standardized instruments to measure Internet use in older adults, and therefore, most studies had a different measurement of Internet use. Some of the items were only provided with “yes/no” dichotomous responses, limiting an in-depth understanding of Internet use. For example, one study only asked if the participants were using ten of the social media channels listed without asking them the reasons for not using it if they answered “no”. This is problematic as the granularity and in-depth information of reasons for not using the Internet are unavailable for investigation. Quittschalle and colleagues explored the factors associated with Internet use in older adults. They found that larger social networks, lower depressive symptoms, higher quality of life, and a greater number of chronic illnesses were associated with higher Internet use [13]. In addition, Gell and colleagues identified that impaired physical capacity and disability such as visual impairment and memory problems were associated with lower technology adoption in older adults [14].

One important domain of Internet use was not commonly found in the included studies: Internet skills. Internet skills should be included in the Internet use measurement as it is the primary determinant of Internet use in older adults [15]. Studies have concluded that older adults with a higher socioeconomic status (e.g., higher education level and household income) tend to have higher Internet skills [16]. Internet skills among older adults are not as good as those of younger people due to the digital divide and digital inequality. Older adults who were poor, low educated, illiterate, and have difficulty gaining Internet access had extreme difficulties using the Internet [17]. Consequently, older adults have lower self-efficacy and confidence in connecting to the Internet and understanding how the Internet works [18]. The measurement of Internet skills could be as simple as one item of self-reported Internet skill or a validated Internet skill scale consisting of strong theoretical consideration. For example, van Deursen and colleagues proposed four Internet skills that should be evaluated: operational, formal, information, and strategic Internet skills [19]. The multidimensional measurement of Internet use is warranted as different aspects of Internet use might have different relationships on health and well-being. Hunsaker and colleagues suggested the approach of Internet use measurement should include the following aspects: years of use, frequency of use, context of use, Internet skills, and types of Internet use [20].

4. The Possible Positive Effects of Internet Use on Well Being in Older Adults during the COVID-19 Pandemic

Most studies found a positive association between Internet use and mental health in older adults, mainly when older persons used the Internet for social networking purposes. The results were motivating as they provided possible solutions to maintain the well-being of older adults during the COVID-19 pandemic, which is to continue supporting older adults by encouraging them to continuously connect virtually with their friends and family during the lockdown period. Older adults were the ones that were greatly affected during the pandemic as they were the vulnerable group; however, it was a necessity for them, in order to continue having social and emotional support during the lockdown period. A recent study reported that loneliness among older adults increased after the announcement of a lockdown [6]. Women, those living in poverty, living alone, with no children, unsatisfied with neighbour interactions, and physical distancing were associated with higher levels of loneliness in older adults [6].

The relationship between social media use and mental health differs between older and younger adults. Several studies have found that social media use in younger adults did not promote good mental health as it increased the level of loneliness [21][22][23]. The difference could be due to the purpose of social media use in both groups. Older adults often use social media to stimulate social interactions, where they feel contented and happy by connecting with others virtually. However, younger adults often use social media to compensate for their loneliness. They scroll through social media when they feel lonely and hope that they can compensate for the feeling by frequently browsing their social media applications. Unfortunately, most younger people who frequently use social media are associated with poor social skills. Therefore, they are unable to achieve better psychological well-being by frequently checking social media.

5. Barriers of Older Persons in Adopting ICTs and the Need of Having More Older Adults-Friendly ICTs

Several studies have highlighted the reasons why older people are not keen on using the Internet during the lockdown period. Some common reasons from the included studies were lack of knowledge on Internet use and physical disability. Vaportzis and colleagues identified several barriers of older adults in using digital technology in their qualitative studies: lack of Internet literacy, lack of confidence in coping with the usage of digital technology, poor health status, and non-affordable digital technology ^[18]. Similar to the previous findings, Yazdani-Darki and colleagues concluded that physical and mental health deterioration, digital technology literacy, limited access to technology, and negative attitudes toward technology were common barriers to using digital technology among older adults ^[24].

Developing more elderly-friendly social technology is possibly one of the solutions to engage more older adults in utilising the Internet for social interactions. According to Chamber and colleagues, several issues need to be considered to make social technology more elderly-friendly such as size of text, letters, and symbols should be big, number of text per page should be short, the contrast between text/graphics and background should be obvious, jargon be avoided in the text, and the size and relevance of images should be appropriate ^[25]. Furthermore, Yusof and colleagues also recommended that the design framework of elderly-friendly applications should be based on the visual (size of text and symbol, colour contrast), cognitive (user-friendly and less cognitive ability required to operate the application), dexterity (voice recognition application instead of fully operated by fingers or hand), and audio (appropriate audio to make the application more interesting) aspects ^[26].

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