

Quality of Life: Older Adults and the Role of Social Media

Emergent Research Forum Paper

Michael Milovich Jr.
Rowan University
milovich@rowan.edu

Debra Burleson
Baylor University
debra_burleson@baylor.edu

Abstract

A significant percentage of our overall population includes older adults. Moreover, the information systems (IS) discipline has advocated change in the area of health care, particularly with the Internet of things (IoT) and the use of social inclusion to improve one's quality of life. To that end, this paper focuses on the older adult who is over 65 years old. Older adults navigate the personal use of technology differently than young to mid-range adults. Therefore, we propose that the IS discipline adopt new techniques that could make strides toward improving the lives of our older population. Past studies reveal findings on the significance of cognitive speed, social integration, and social network. These interventions reduce the risk of cognitive decline and increase quality of life. We believe these extant findings may adapt to an older adult's use of social media and open opportunities for managing everyday life capabilities.

Keywords

Older adults, social inclusion, social media, cognitive speed, social interaction, social network.

Introduction

By 2050, two billion people will be over the age of 60. Of this number, 75 percent will come from developing countries. "Aging has been identified as one of the four key 'megatrends' that will shape the world in 2030 and as one of the five major global risks in the coming decade" (Chand and Tung 2014). This statistic on aging is attributed to a dramatic increase in life expectancy, more effective birth control, and improved education (Kulik et al. 2014).

Social media platforms (i.e., Facebook, Instagram, Twitter, etc.) have the potential to provide older adults with a connection to family and friends, in addition to information for day-to-day decision-making. However, there are unique challenges when the older population accesses technology (Hawthorn 2000). These technology challenges are beyond those of new learning experienced by the digital natives. The millennial generation, who are the digital natives, use computers daily and often interact socially and professionally using technology. Older adults were born before the digital age and adopted technology later in life (Meister and Willyerd 2010; Prensky 2001). They may not have the resources to access social media, such as a handheld device, Internet connectivity, or technology training.

Researchers on aging have found that brain exercise and social integration reduces the risk of cognitive decline (Valdes et al. 2016; Wang et al. 2002), and health-related quality of life issues (Wolinsky et al. 2006). When using social media, the habitual activities might be a source for developing cognitive speed and social interaction in older adults. Hence, an investigation may produce findings that social media has a positive effect on older adults' life style and quality of life decisions. For example, the IS discipline has investigated the effects of social media on relationships and social media on business practices. Likewise, the geriatrics discipline has investigated the effects of brain exercise, and in a digital world, are now available in electronic form (Smith et al. 2009; Barnes et al. 2009). Bringing these two research streams together in a new form of digital exercise developed around social media may be of value to older adults. In fact, computer-based intervention exercises produce observable results, beyond memory or reasoning intervention, since the participant proceeds at his or her own pace (Wolinsky et al. 2006).

The focus of this experimental research is the development of new social media based interventions that could supplement the social interaction of adults over 65 who live in nursing homes or home health care facilities. It is probable that greater social inclusion will have a positive and significant effect on an older adult's sense of social engagement. The objective is to advance existing social processes through technology innovation. The following research questions lay the foundation for this investigation: What are the age-relevant adaptable factors in technology that make social media acceptable to older adults? How is the well-being of older adults impacted when they experience an increase in social engagement through social media?

Background

Since before the turn of the century the Internet has brought people closer together thereby easing alienation and isolation (Climo 2001). However, among Internet users in 2016, Pew Research finds that 13 percent of Americans do not use the Internet. And of those Americans by age group, 41 percent are over 65 years old (Anderson 2016). Yet, separate studies in the following three areas—digital social inclusion (Ordonez et al. 2011), computer-based cognitive speed training (Valdes et al. 2016), and social network and social integration (Holtzman et al. 2004; Béland et al. 2005)—have shown that each area improves the quality of life in older adults. Older adults' use and adoption of social media may be a tool for families and caregivers that allows all three extant research topics to be incorporated together.

Social Inclusion

Social inclusion refers to “the extent that individuals, families, and communities are able to fully participate in society and control their own destinies. . .” (Warschauer 2003, p. 8). While all adults may experience social inclusion and social exclusion, the older adult population has challenges unlike other age groups. For example, age, physical disabilities, and partner loss all impact social engagement (Rosso et al. 2013). Disability includes many subcategories such as losing or diminishing eyesight, muscular control, and mobility. Older adults may be socially excluded because of their physical disabilities, their spouses' disabilities, or because, to society, they have been deemed of little value in terms of future events (Tsakoglou and Papadopoulos 2002).

Studies suggest that activity is not necessarily centered on fitness, but it includes establishing a sense of worth, social engagement, enjoyment, and productivity (Glass et al. 1999). A sense of worth and social engagement may come from participation in a virtual community. These communities reduce the level of isolation, particularly for the older adults who have trouble with disabilities or mobility (Blit-Cohen and Litwin 2004). In addition to reducing levels of isolation, studies have also found that social networks benefit the health and well-being of individuals (Ordonez et al. 2011; Wang et al. 2015). In fact, the more socially engaged older adults reported lower levels of disability (deLeon et al. 2003).

Cushman and McLean (2008) called for ethical responsibility among IS researchers. As our field seeks to develop innovations to improve living conditions, we need to consider those who are the least powerful as well as those who are privileged. Studies also demonstrate that research seeking to improve the quality of life may potentially harm rather than help the population they targeted if they do not consider the full context of their population (Andrade and Doolin 2016).

Cognitive Speed

Findings have shown that interventions to address cognitive decline in older adults with mild cognitive impairment have been successful. Cognitive speed of processing training has improved the everyday functional capabilities of older adults (Valdes et al. 2016). In fact, Wolinsky et al. (2006) found in their study of 1,804 participants that at two years into the study, those with cognitive speed intervention were less likely to have extensive health related quality of life decline when compared to their control group. However, at five years into the study, speed, memory, and reasoning interventions were all successful at reducing health related decline. In a 10-year study on driving cessation in older adults, findings show that adults who underwent reasoning training were 55 percent less likely to quit driving over the period. Moreover, adults who underwent speed of processing training were 49 percent less likely to stop driving—a percentage that increased to 70 percent when additional intervention on speed of processing training was administered (Ross et al. 2016). These same cognitive abilities encourage the use of social media.

Therefore, a technology tool focused on social inclusion of older adults may reduce depression and health-related quality of life issues.

Social Relationships

Cognitive and functional loss in older adults decreases social interaction and physical activity, which negatively affects quality of life (Gallo et al. 2000; Wolinsky et al. 2006). Recent studies demonstrate that both social network (Béland et al. 2005) and social integration or engagement (Holtzman et al. 2004; Béland et al. 2005) may help maintain quality of life. Béland et al. (2005) define *social integration* “as community such as belonging to neighborhood or religious groups or nongovernmental organizations” and *social networks* “by their structure (types and number of social ties, proximity of relationship) and function (frequency of contact, reciprocity, social engagement)” (p. 323).

Scholars have found that participation in frequent daily-weekly social activities reduces the risk of dementia 6.4 years later (Wang et al. 2002). Interestingly, researchers interpret the benefits of social interaction through findings that the frequency of relationships can either be positive or negative (social demand or conflict) (Seeman et al. 2001). Furthermore, older adults with more frequent contacts in larger networks relate more positively and retain better cognitive health (Crooks et al. 2008; Holtzman et al. 2004). The definition of contact in these studies is a call or visit from people in touch with an older adult.

Summary

Studies have demonstrated that the older population’s challenge with disabilities makes it difficult to learn new technologies. However, we believe that many studies have approached technology use for the older population using the same process as would be used for the younger to mid-range adults. Our review of the literature has shown that our discipline is positioned to make huge strides toward improving the lives of our older population in a new way.

Research Method

Social media-based interventions modifying cancer-related behaviors such as tobacco use (Cavallo et al. 2014) exist in health care practice. In addition, both cognitive speed interventions (Ross et al. 2016) and social interactions (Béland et al. 2005) with older adults exist; however, we are not aware of interventions using social media in our study area. In our experimental research, we plan to adapt existing computer-based health care training where digital social inclusion (Ordonez et al. 2011) will frame the cognitive speed (Valdes et al. 2016) intervention.

We will gather our data using evaluations and training sessions in a face-to-face setting. Our target population includes those living in a nursing home or home health care facility who are 65 years or older. We are intentionally studying those who have moved out of their home and are separated from family and friends. We have geriatric health care practitioners who will provide us access to participants.

The data collection will follow a structure of pretest, intervention, and post-test. Each participant will undergo a cognitive placement pretest in a controlled setting. A participant’s cognitive category involves a structure of derived cognitive abilities from an assessment (Etnier et al. 2006). The test is noninvasive and administered by a health care professional during an interview taking approximately 15 minutes. Thereafter, a team consisting of medical students and graduate business students will administer a training session, which is two interventions per week over 5 weeks. Then, 90 days later, a randomized group of half of the participants will repeat the 5-week training session. The intent of the repeat group is to understand the likelihood of increased success within the test parameters when additional training is administered. After each session, each participant will be re-assessed. Training tasks will be difficult enough to maintain intensity for a challenge, yet not so difficult to create frustration (Ross et al. 2016).

Discussion

Intimate relationships through face-to-face communication are important, especially when people are emotionally attached. That said, virtual communication through the Internet might not be a substitute for a close relationship (Climo 2001) and may reduce feelings of loneliness. Relationships change when older

adults move or separate from family and friends (Climo 2001). Social media allows socialization when separation occurs, yet respects an adult's independence. The value of social media, as a tool, can provide a form of social integration and cognitive speed training needed to improve quality of life.

Research findings have revealed that physical, social, and mental activities are evidence for the prevention of dementia late in life (Fratiglioni et al. 2004). However, some older adults move into a sedentary lifestyle due to illness, injury, frailty or other health diagnoses. Maintaining cognitive speed and social network may continue to act as deterrents to reduced cognitive ability. It seems appropriate that the body of knowledge include the role that social media may have in adding to an older adult's quality of life.

The intent is to understand the significance of social media, if any, and the strength and direction of that significance on the lives of older adults. A simple swipe of a tablet screen to maintain a network, like turning the page of a magazine, might enhance their quality of life. If significant, perhaps this research stimulates future studies including those of geriatric specialists who develop interventions that show older adults that they can engage in social media. Technology is capturing the mind of 2 year olds. We believe the same potential exists to develop the quality of life in adults well into their 90's.

Conclusion

We believe that social media has the potential to improve the quality of life for the older population. Our discipline has made significant strides in areas such as medical technologies and health care outcomes. This study will add to the body of knowledge while addressing an important gap in our field.

Our study's participants are adults over 65. One potential limitation is that our participants unexpectedly pass away or become physically or mentally unable to continue the study. We need to begin our study with a more participants than we might actually need to sure that our study has the sample size that we project.

As evident by our discussion, many research disciplines have studied the older population's health outcomes and challenges. Through the lens of social inclusion, we aim to build on this foundational information, together with social network research, to empower older adults to participate in society.

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