The Utilization of Technology in Health-Related Management and Communication

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Introduction

There is an increasing prevalence of technology use in adults over age 50.

- 77% of adults aged 50-64 and 54% of adults over 65 use the internet[1]
- 32% of adults aged 50-64 and 12% of adults over age 65 own a smart phone.[2]

Technology can enhance independence and personal control, and has been shown to be efficacious for facilitating health behaviors such as:

- accessing health care and information
- engaging in self-monitoring and management
- increasing confidence in health-related decision making
- maintaining activity and independence [3-4]

Everyday technology (e.g., mobile devices, Internet, email, video chat software, smart phones) can enhance and facilitate health and independence and promote supportive relationships to meet health care needs.[5-9]

Vital gaps remain in our understanding of the many pivotal roles everyday technology may play in successful aging.

The purpose of the present study is to present the first national profile of health-related technology use across adulthood.

Method

Presented data are from the National Study of Daily Experiences III (NSDE; 2013-2014), an in-depth study part of the MacArthur Foundation National Survey of Midlife in the United States (MIDUS) series.

Participants: N=377 participants, ages 28-69 years old (M=45, SD=8.4); 183 males (49%) and 194 females (51%). Three age categories were created: 39 or younger (n=114, 30%), 40-49 (n=135, 36%), 50 and older (n=130, 34%).

Health and Technology Assessment: Participants responded to an assessment (created by the first two authors) asking about their health-related technology use throughout the previous week.

Over the past week have you used any of the following technology for any of these health-related activities? (Yes/No)

- Talking on phone
- Texting
- Email
- Instant messaging
- Skype, FaceTime, or other video chat software
- Social networking (e.g., Facebook, MySpace, Twitter)
- Internet browsing
- Blogging/posting on forums
- Mobile apps

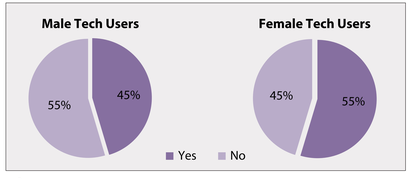
Which of the following did you use this technology for? (Yes/No)

- Monitor a health condition (e.g., track insulin level, blood pressure, mood, menstrual cycle, side effects)
- Monitor a health behavior (e.g., counting calories, exercise)
- Browsing/communicating with social network
- Communicate with a family member, friend, or caregiver about your health
- Communicate with a health care provider about your health
- Make an appointment, check test results, refill prescriptions with your health care provider(s), seek information about some health aspect/issue important to you

Results

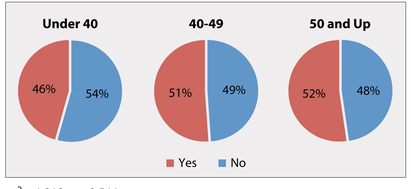
- Nearly half used at least one form of technology related to their health. Of those who reported health related use:
  - 47.1% used technology to make appointments, refill prescriptions, and seek information from healthcare providers;
  - 42.2% monitored a health behavior;
  - 37.4% communicated with family members, friends, or caregivers about health.

Figure 1
Females More Likely to be Health Related Tech Users



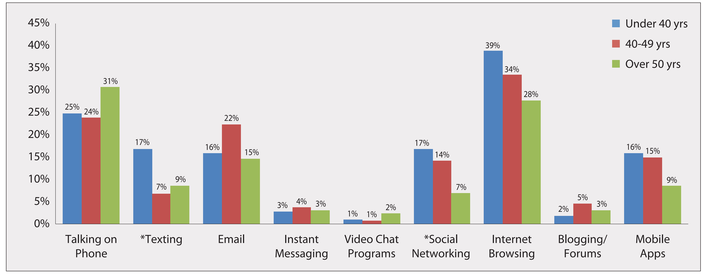
$\chi^2 = 3.230$, $p = 0.072$

Figure 2
Overall Use Does Not Differ by Age Group



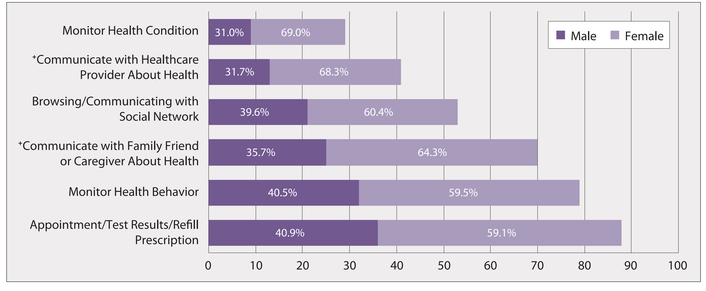
$\chi^2 = 1.218$, $p = 0.544$

Figure 3
Types of Health Related Technology by Age Category



$^*p < 0.05$

Figure 4
Purpose of Health Related Technology Use



$^+0.05 < p < 0.10$

Discussion

- Half of the sample used some type of technology for health related use. The most common technology forms were internet, talking on the phone, and e-mail.
- Women used more health-related technology than men (54% and 45%, respectively).
- Women were more likely than men to communicate with others (i.e., health care provider, family, friend, caregiver) about their health.
- Significant age differences in technology use existed. Participants under 40 were more likely to use internet and texting; 40-49 year olds primarily used internet and email, and those over 50 used telephone and internet for health purposes.

Conclusion and Future Directions

- More research should be done on technology usage for aging adults.
- These types of studies can support clinicians and health educators in enhancing their patients' health self-management.
- These studies can also aid in developing communication practices between older adults and health care professionals.
- Gender differences in technology usage reflect higher rates of women using technology for health purposes; given that caregivers are more likely to be women, this could have implications for how the caregiving process is experienced, particularly among those who provide care from afar.
- This study has implications for how we will define healthy aging for the future and how we will support the boomers as they grow older.