Assessment of Technology for Enabling Self Care in Older Adults

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Abstract
Information technology interventions as a means to meeting healthcare needs for the elderly population as healthcare costs increase, society ages, and the healthcare workforce declines. The purpose of this focus group was to better understand how people in this age group view their health and healthcare, the use of technology, to facilitate healthcare, their level of independence, and changes in health caring.

Methods
Two 90 minute focus groups of 8 subjects each were conducted in Kannapolis, NC with subjects 65 of age and older. The purpose of the focus groups was to better understand how people in this age group view their health and healthcare, the use of technology, to facilitate healthcare, their level of independence, and changes in health caring.

Participants were recruited from people currently enrolled in the MURDOCH Study Community Registry and Biorepository. A moderator led the focus groups following an interventional schedule. The sessions were taped and observations were recorded in field notes. The tape recordings were transcribed verbatim.

Focus group transcripts and field notes were collated and analyzed for thematic content using the qualitative software NVivo and reported in aggregate.

Results
Healthcare and information needs related to chronic disease management, medication management, nutrition, activities, and social engagement are areas of significant interest in the older population. They want to live independently in their homes, the use of technology not to want to be faced with relying on others, especially family members, to do it.

Technology that focuses on personal health monitoring and mobile devices for remote physiological monitoring may be useful as a means to support living independently. Most of our participants, whose mean age was 73.25 years (median 69), had computers, although several did not use them. Those using computers used them primarily for email, reading newspapers, shopping, banking, and making health care appointments for emergencies. Cost was an issue for using and owning both computers and cell phones. Almost half were aware of Skype but only one had ever used it.

Participants did not think technology would be useful for medication reminders or nutritional meal preparation, but were overwhelmingly excited about the prospects of virtual travel.

Conclusions
All of the participants in the study were concerned about the future availability and costs of medical care, health information privacy and mobility as major concerns. Few were concerned about their privacy issues related to continuous monitoring and would accept this if it meant remaining in their homes. There was concern that monitoring might create a false sense of security. Sight and hearing may be factors in successfully using technology to support people 65 of age and older, prompts or reminders often rely on these senses to the technology.

The study found that older individuals are aware of and use technology, although the use of computers, the internet, and use of cell phone limits people as they age. Individuals 65 of age and older are highly motivated to use technology about their health care needs and remain living independently in their homes as long as possible, although their ability and willingness to embrace legitimate concurrent use of several technologies is uncertain.

References

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Notes:
A 2015 study of individuals 65 of age and older, 64% of the participants would use a computer to check their health status and 54% of respondents would use a computer to set their medications.

Interview Schedule
1. Do you consider yourself healthy?
2. Do you live alone or with someone?
3. How important is it for you to remain living independently in your home?
4. What do you want your doctor to know from you being involved in this study?
5. Do you have a computer? Access the internet? If you have a computer, how often do you use it? What do you use it for? Would you use a computer to answer a few questions about what you do during your day?
6. What do you think about a computer program that would let you plan your daily needs, then develop a shopping list for you? Do you do your own grocery shopping? What do you think the program also tell you about nutrition needs and makes recommendations for changes in your diet?
7. How are you with technology? Where have you used it? Explain.
8. Have you ever used a cell phone?
9. Explain mobile texting, where you are, etc. Do you think about a monitor in your home that would tell people what room of the house you are in, whether you are eating or walking? Is it an invasion of your privacy?
10. Level of self care. Are you responsible for all of your health care needs in terms of, monitor yourself? Would you take your computer into a doctor’s office that could then be taken to your doctor and your physician? If so what extent have you participated in self monitoring?

11. When you think about a monitor that would tell you medication and record the time?
12. Would you be interested in participating in social groups with a screen like a TV that you could see other people and they could see you?
13. Would you use a computer to participate in virtual travel?
14. How do you feel about your spouse/family/caring family, access to your health info in

Number of makes and females by age.

Comments from Participants
On criteria
- Most people I know that are in nursing homes, they’re always wanting to go home. So home is where the heart is.

On criteria
- My mother: Self-sufficiency and fear of failure are the big reasons that keep us chained to the walling wall of accomplishment.
- I think affirmations, signs on buildings, things or the wall something, mine is let me release the pain of the past and welcome the joy, the love, the health, the success that are mine to claim. So it’s a mental thing saying to go, reach out, do...
- Focus on what you can do...
- Computers
- “I’t isn’t because of concentration, I don’t focus very well on one thing."
- I would absolutely believe if I didn’t have the internet, I love to surf the internet, and I find my way, it’s a way to plug into the world. It may be a false security, but I’m not for it for no reason, I just burn the wireless out of me.

On cell phones
- “It’s not really knowing how to use it but the cost of purchasing and maintaining it monthly is a significant impact. You look at doing a budget 20 years ago, and Internet and cell phone would probably not have been in your budget. And now it’s and it’s greater than than your electric bill.”
- “It’s to the dumbest thing, just don’t want to be a dumb phone.

On medication
- The medication management over the coffee pot. I put the medication in the coffee pot and I put it down and eat it at bed time, so that when I go to bed I have my medication to take.

On communication
- “I would monitor, a monitor, to a point, I feel it is invasion of my privacy, however, that if I would keep me living in my home and give me a sense of security, sign me up.
- “I don’t mind what kind of label you put on me, just don’t ignore me.”
- “I’ve never felt the kind of label you put on me, just don’t ignore me.”
- “In my heart and in my mind, I’m still a young woman and I’m not...”

References

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