

ACCESS TO MOBILE COMMUNICATIONS BY OLDER PEOPLE

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INTRODUCTION

Older people want to 'age in place', and live safely, independently and comfortably in their own home and community [1][2]. However, for many older people, this is compromised by the gradual or sudden onset of impairments and declining health as a result of ageing. There is significant potential for the provision of effective accessible mobile communication technologies to enhance communication and safety and to support independent living for older people, particularly older people with impairments, that can lead to significant improvements to their quality of life and overall sense of well-being.

Mobile communication technologies (MCT), particularly mobile phone technology has become a ubiquitous, adaptable and near 'universal platform' that supports many modes of communication, access to information and control systems, services and entertainment. However, mobile phone technology, like other technology-driven products, is designed and marketed for younger, able, dextrous users who are comfortable with and enjoy using technology as an everyday part of their lives [3]. Older people form a group who could potentially derive great benefit from the improved sense of safety and security, freedom of movement and improved social communication, health and lifestyle that mobile phone technology can offer, yet many are unable to readily access and use most currently available products [4][5].

Older people, particularly those with impairments are often disadvantaged by the difficulty of finding effective mobile phone technology that meets their needs and matches their capabilities. This is frequently due to an inadequate knowledge of the design and

functionality of these technologies, the complexity of their use and the lack of appropriate training and support [6][7]. An understanding of the fundamental issues and enduring solutions to these problems will be significant to the ageing population, especially those who have functional impairments.

The overall research aims to create an innovative evidence-based approach to support older people in identifying, selecting and using mobile communication technologies as aids to living independently. The research also explores the potential for accessible MCT to provide a means for older people to summon assistance, monitor and manage their health as well as improve communication opportunities and remain active members of the community. The overall research examines two main questions: (1) What are the fundamental issues and adaptable solutions that will enable older people to effectively select and use mobile communication technologies to enhance access to and control of communication, increase their safety and support their independent living? (2) What is the optimal training and support needed to enable older people to learn to use mobile communication technologies effectively?

METHODOLOGY

The present study, the first phase of the overall research, is an implementation of a purpose-designed, cross-sectional, descriptive survey to gather information from older people in South Australia about their opinions and experiences on the issues of identifying, selecting and using mobile communication technologies to assist with daily communication, security and independence and their potential as a means to support independent living.

The survey consisted of four key areas of investigation: (1) Motivation for use and ease of use of mobile communications technology. (2) Methods and preferences for identifying, selecting and learning to use mobile communications technology effectively and any factors, barriers or difficulties that impede these processes. (3) Consideration for future technology, applications and other advanced and potential uses for mobile communications devices. (4) Demographics, health and physical state of respondents.

A combination of quota and convenience sampling approaches was used whereby respondents were matched as closely as possible to the general South Australian population in terms of age, gender and socio-economic status. Sample recruiting and matching were achieved through co-operation with aged care, senior and community health organizations and services as well as seniors clubs, centres and information services.

A total of 153 people participated in the survey with focus groups planned as a next step to provide a further understanding of the issues which emerged from the survey.

RESULTS

Demographic of participants

Demographics data are summarized in Table 1.

On most characteristics the sample was similar to the population of older South Australians, with the notable exception that respondents had a higher level of education and good health. These factors were probably indicative of the fact that those that were well educated and with good health would be more likely to respond and complete detailed questionnaires.

Mobile communication technologies use and ease of use

Of the total respondents sampled, 83.7% (N=128) were current mobile communication technologies users and 16.3% (N=25) were non-users. Mobile phones (77.1%) represented the highest proportion of mobile communication devices owned by participants.

For those participants who did not use any mobile communications technologies, 35% would be interested in using them, while 65% said there would not interested. The reasons for non-interest were:

- Have no need to use them (67%)
- Have no interest (40%)
- Too complicated to use (33%)
- Costs and affordability (20%) and
- Age related issues (13%).

Table 1: Demographics characteristics of respondents (N=153)

	% of respondents	% of population over 65 in SA*
Age group		
65-74	51.6	49.5
75-84	32.1	37.1
85+	16.3	13.4
Gender		
Female	55.9	62.7
Male	44.1	37.3
Marital status		
Married	54.9	54.2
Widowed	32	29.9
Other	13.1	13
Country of birth		
Australia	69.3	56.5
Overseas	30.7	35.3
Living situation		
Alone	40.5	32.8
With spouse/partner	52.9	59.5
With others	6	7.7
No response	0.7	
Income		
Pension + other investments	69.3	71.9
Other	28.1	28.1
No responses	2.6	
Health		
Excellent	10.5	12
Very Good	34	24
Good	40	33
Fair	11.8	22
Poor	2.6	9
No response	0.7	
Education		
Primary	4.6	26.9% Post-school qualifications
Some secondary	15.7	
Complete Yr 12	11.8	
Trade/Business certificate	24.1	
Tertiary	42.5	
No response	1.3	

*Source: Australian Bureau of Statistics Census (2006)

Of the 109 respondents who use mobile devices, 33% found their device easy to use, while 57% reported some difficulty and 9% experienced great difficulty with using their

device. Only 1% could not use their device. Some of the reasons for these difficulties include:

- Lack of knowledge of features
- Too many features, leading to increased complexity and confusion
- Poor instruction manuals or user guides (too much jargon and terminology that are technically challenged for the ageing).
- Poor design – small keys, small display text and low contrast.
- State of health – reduced sensory and motor skills (e.g. arthritis, tremors and poor eyesight).

Motivation for using mobile communication technologies

When participants were asked to indicate the main reasons why they would use mobile communications technology, the overwhelming response was for emergencies or security purposes (88.2%), followed by to contact or to be reachable by family & friends (69.9% and 69.3%, respectively) and for sense of safety (50%). Fewer respondents would use it for other purpose such as access to information services (9.9%), work (9.3%), recreation (7.8%), and education (3.3%).

Identifying, selecting and learning to use new mobile communications technology and options

Respondents completed a series of questions to indicate their methods and preferences for indentifying, selecting and learning to use new mobile communications technology and options. Tables 2, 3 and 4 summarize these results.

Table 2: Participants’ preferred methods of receiving information on new mobile communication technology or options (N=153).

Preference for receiving information on new mobile communication technology	No.	%
Family and friends	116	75.8
Telecommunications provider	46	30.1
Marketing brochures, flyers, pamphlets	42	27.5
Dedicated website	34	22.2
Advisory Hotline	26	17
Affiliated organisations, clubs or societies	20	13.1
TV aids	11	7.2
Other (e.g., magazines)	8	6.2

An interesting finding from this questionnaire is that a large number of respondents said family and friends (75.8%) was their preferred method of receiving information about new mobile communication technologies or options.

When it comes to selecting and/or buying mobile communication technology, older people preferred to ask their children for help (45.1%). Another interesting finding from the survey is that despite sales persons being identified as lacking the knowledge and understanding of the needs of older people and their eagerness just to sell technology, 45.1% of the respondents would still seek assistance from a sales person.

Table 3: Preferred methods of buying new mobile communication devices (N=153).

How older people go about buying new mobile communication technologies	No.	%
Ask my children for help	69	45.1
Seek assistance from a sales person	69	45.1
Research and choose a mobile device myself	44	28.8
Seek the assistance of a partner or friend	39	25.5
Ask my grandchildren for help	27	17.6
Rely on the advice of a sales person	24	15.7
Seek the assistance of a health professional	2	3.9
Other (e.g., talk to others)	6	1.3

Table 4: Preferred methods to learn to use new mobile communication technologies (N=153).

Preference with learning to use new mobile communication technologies	No.	%
Receive face-to-face training	85	55.6
Get my children to teach me	73	47.7
Follow the user guide	59	38.6
Learn by experimenting with the device	59	38.6
Get my grandchildren to teach me	40	26.1
Get my partner or friend to teach me	31	20.3
Follow an instructional DVD	20	13.1
Visit a website that teaches you how	6	3.9
Other (e.g., any one visiting)	3	2

When learning to use a new mobile communication device, older people preferred to receive face-to-face training (55.6%) or get their children to teach them (47.7%). Although many respondents have reported that user guides are difficult to follow and to comprehend the language and terminology used, 38.6% of respondents expressed a preference to learn to use their device by this method.

Future technology, applications and other potential uses

Of the 140 participants surveyed, 44% were interested in trying out new designs or applications for mobile communication products, devices or services.

Mobile communication technologies have the ability to be used for personal assistance, health monitoring and management and other applications about which respondents may be unaware. Participants were also asked to indicate the importance of these functions to them. A summary of responses is presented in Table 5.

Table 5: Functions and capabilities of MCT that would or might be important to assist with independent living of older people (N=153).

Important functions or features that could assist older people	No.	%
Summon assistance with single button press (e.g., an alarm button)	83	54.2
Monitor my blood pressure	50	32.7
Remind me to do certain tasks during the day	31	20.3
Monitor my heart rate	30	19.6
Help me navigate around the community	28	18.3
Monitor my blood glucose level	23	15
Count the number of steps taken in a day	17	11.1
Other functions (eg, exercise program)	7	4.6
None of the above	30	19.6

DISCUSSION

The study results thus far paint a picture of what older South Australians need in order to successfully identify, select and learn to use mobile communication technologies to benefit their independence, health and well-being.

Older people rely very much on family and friends to receive appropriate advice and information on mobile communication technologies that will meet their needs and matches their capabilities. Older people particularly resort to asking their children to assist with buying and learning to use new mobile communication technologies. This factor was probably indicative of the trust they place on their children to deliver the best results for them.

The most important finding in this survey is that security and safety and the ability to

summon assistance in case of emergencies are most important and top priorities for older people. This is consistent regardless of their age range (65-74 yrs (N=79), 75-84 yrs (N=49) and 85+ yrs (N=25)), living situation (living alone or with someone) and overall health (excellent or poor). Knowing the type of emergency or security situations that older people are anxious about would be the next step to developing and tailoring mobile communication technologies to further enhance their independent living.

The presentation will also provide additional information from follow-up focus groups with participants from the survey pool which explores further significant issues into what is important for older people in terms of feeling safe and secure and maintaining independence in their own home and community through the use of appropriate mobile communications technologies.

ACKNOWLEDGEMENTS

This project was supported by an Australian Research Council Linkage Projects Grants Scheme.

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