Research paper

Use of information and communication technology to provide health information: what do older migrants know, and what do they need to know?

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ABSTRACT

Background Governments and businesses are increasingly using the internet and mobile telephones to disseminate information about services and products. However, not all population groups have the resources and capabilities to support equality of access to and use of these technologies. While Australia's ageing population receives attention in a wide variety of literatures, the ageing migrant population has received very little attention in relation to understanding their place in the 'digital divide'. It is not known how this group gathers information used in everyday living, or what role the internet or mobile phones plays within this. At a time when the population is ageing and there is an increasing use of the internet to deliver services and information, there is little research on the effects of ethnicity, migration, socio-economic status, education or gender of older people on the use of information and communication technology (ICT). Addressing this should be a priority in Australia, which has an old and ageing population that includes many post-war migrants from non-English speaking European countries.

Aims To analyse the views of older migrants living in South Australia with respect to their current information sources, their use of ICT and any barriers and enablers to future use of ICT for accessing health information.

Methods A qualitative study employing eight focus groups involving 43 older Italian and Greek migrants living in the community in metropolitan or regional settings in South Australia. Interviews were held and audio-recorded and the English language components transcribed. Transcriptions were analysed manually using a grounded theory approach.

Results Older migrants do not use ICT to a great extent to access information in their everyday lives, with many expressing no interest in learning how to do so. However, they access the information they need to function in society with a desired quality of life from multiple sources by various means. Sources include electronic and print media from Australia and their home countries, family and acquaintances, government departments or service providers. Many expressed a preference for receiving information as printed material or directly from another person.

Discussion Governments or primary healthcare organisations planning to make health information solely available via ICT should be aware that doing so may lead to an increase in 'information exclusion' and the formation of functional knowledge deficits for older migrants. At the moment at least, our participants do not perceive any functional knowledge deficits as they engage multiple sources to access the information they need for everyday life. We recommend that governments and healthcare organisations evaluate the appropriateness of using ICT to directly provide information to older migrants and consider non-digital means or the engagement of 'information brokers' when communicating with groups identified as low or non-users of ICT.

Keywords: functional knowledge, information, older migrants

How this fits with quality in primary care

What do we know?
Governments and businesses are increasingly moving to ICT-mediated strategies to disseminate information and interact with consumers around health care, social security, commerce and other services. Such strategies assume that those wanting and needing such information and services will have the resources and abilities to access them, i.e. to use digital technologies, in particular the internet and mobile phones. Older people generally use digital technology less than do younger age groups. A culturally and linguistically diverse background is an additional barrier to an individual when accessing information within mainstream society.

What does this paper add?
This qualitative study confirms that older Italian and Greek migrants in South Australia are low users of the internet, computers and mobile phones. Participants identified reasons for not using these means to gather information, such as a lack of interest or skills, design features not suited to older people and intended recipients of communications not using the technology. However, participants demonstrated a good knowledge of local and international events and the ability to access the information they need to live their lives without the use of these digital means. This study suggests ways to use ICT to provide information to groups who have identified themselves as low or non-users of the medium.

Introduction

Older people generally use digital technologies less than those in younger age groups.[1] A culturally and linguistically diverse background is an additional barrier to an individual's ability to access information within mainstream society.[2] There is little research on the effects of ethnicity, migration, socio-economic status, education or gender of older people and the use of ICT at a time when many multicultural populations in Australia are ageing and there is an increasing use of the internet to deliver services and information. Addressing this should be a priority for governments and businesses.

Increasingly governments and business are moving to ICT-mediated strategies to disseminate information and undertake contact with consumers in relation to healthcare services, social security, commerce and other services. The South Australian state government, for example, introduced its 'Ask Just Once' strategy in 2008. This aims to 'transform the delivery of Government services' by 'helping customers to use on-line, self-service and lower cost delivery modes wherever practical'.[3] In health care, progress has now moved beyond health provider enablement (electronic records management, telemedicine etc.), to the early days of healthcare consumer enablement.[4] The Australian federal government has a 'National E-Health Strategy' which, in the interests of containing the spiralling costs of the healthcare system and increasing demand, aims to transform the way healthcare professionals practice and consumers interact with the health system. This aims to 'empower' consumers by providing electronic access to the information they need to better manage and control their personal

health outcomes and to 'actively encourage' consumers to access and use electronic pathways, focusing particularly on 'those segments of the population that interact frequently with the health system' (including the elderly).[5] There are also plans to increase the number of electronic consultations (e-consultations) between practitioners and clients, and the number of online support services for self care.[6] As a first step, the Royal District Nursing Service in Australia already provides some clients, including the elderly, with broadband-supported videophones for medication supervision.[7]

The increased use of digital technologies to provide and collect patient information and monitor medications in community settings suggests a likelihood of greater use of ICTs in primary care. Should this trend continue, healthcare providers and policy makers will need to address potential consequences for groups in society who do not use ICTs now and are unlikely to do so in the future.

According to the World Bank, m-Government (mobile government) is quickly emerging as the latest frontier to make governments 'even more accessible and citizen-centric by extending the benefits of remote delivery of government services and information to those who are unable or unwilling to access public services through the internet or who simply prefer to use mobile devices'.[8] Nevertheless, there is a wide literature describing a digital divide between those who do and do not use digital technologies to meet their information and communication needs. In the 1990s the digital divide focused on supply-side issues of differential availability of telecommunications infrastructure.[9] Since early 2000, however, this digital *access* divide has narrowed but is being replaced by an increasing divide in digital *use and knowledge* and in

intensity and variety of use, which all reflect differences in economic and social structures, skills, training, knowledge, income and age.[10] While Australia's ageing population receives attention in a wide variety of literatures, a review of the literature shows that the ageing migrant population has received very little attention in relation to understanding their place in the digital divide. Furthermore, there is little research on what role ICTs play in the information gathering processes of this group in their everyday lives.

Government initiatives promoting ICT use to provide a whole range of information presumes that consumers both can and want to use ICTs. This might be termed the veneration of ICT. In some ways this mirrors issues of 'health literacy', whereby health professionals aim to increase consumer involvement in health care by increasing 'health literacy' within the lay populace. The corollary for our purposes would be to increase 'ICT literacy' which, it may be argued, would allow consumers to increase their knowledge and to engage in a meaningful and empowered relationship with healthcare providers. Such a process would need to be 'democratic' in order to increase ICT literacy across social milieux. However, it has been argued that the ability to access information (and to translate information into knowledge) is not equally open to all people or groups within society,[11] with particular discrepancies between the 'information rich' and the 'information poor'.[12] In addition, Shilling states that 'different patterns of socialization result in class-based orientations towards symbolic knowledge which affect the degree to which the social world is seen as open to individual intervention' (p. 634),[13] which has also been referred to as the structural patterning of reflexivity, or 'stratified reflexivity'.[14,15] Thus, it seems probably that those with economic, cultural and social capital will remain more likely to access and ingest health and healthcare information and go on to make 'informed choices'.

We adopted a qualitative approach in this study as the purpose was to develop an understanding of how older migrants gather and use information in their everyday activities and what role, if any, ICTs play in this process – a phenomenon about which little is reported in the extant literature.

The aim of this paper is to present an analysis of the views of a sample of older migrants living in South Australia with respect to their current information sources, their use of ICTs and the barriers and enablers to future ICT use for accessing health information.

Method

Recruitment

Participants in the study were first generation migrants who came to South Australia from Italy and Greece in the 1950s and 1960s and who at the time of the interviews were living in the community in metropolitan Adelaide or the Riverland region. The required minimum age was 55 years, with no upper age limit.

Organisations in the respective communities assisted the authors in the purposive selection of participants by distributing information about the project and provided bilingual staff to help with focus group interpretation and translation. An information sheet about the project, an introductory letter and a consent form were translated into Italian and Greek; these were provided to each potential participant. This material was read to illiterate participants before they decided whether to take part in the project. All participants provided written informed consent and no participant withdrew from a focus group.

Focus group interviews

The first author facilitated the focus groups consisting of two to 10 participants. Eight focus groups were held involving 43 participants – 24 Italian and 19 Greek. Six focus groups were held in metropolitan Adelaide and two groups were held in the Riverland region, approximately 250 kilometres from Adelaide. An interview guide of topics was used by the facilitator to provide a broad structure within which participants were encouraged to discuss any issue they considered relevant to the purpose of the group. Consistent with grounded theory method, the discussion in earlier groups led to changes to the topics discussed in later groups. Participants could respond in English or in their first language if they preferred, with a bilingual staff member of the ethno-specific organisation translating the questions and participants' subsequent responses and discussion.

Each group lasted for around 60 minutes and was audio-recorded using a digital recorder. The English language components of the audio files, consisting of participants' responses either made in English or translated into English by the bi-lingual assistant, were transcribed by a professional transcription service. Transcripts were checked against the original audio files by the first author and any necessary corrections made.

Data analysis

Data were analysed according to the grounded theory method described by Charmaz.[16] Transcripts were read and audio-files replayed to recapture the atmosphere of the focus groups. Notes taken during the groups were reviewed to help recall non-verbal communications and observations made during the conversations. In this preliminary study, coding of data was carried out manually and did not continue to subsequent steps leading to the eventual development of theory. Instead, we used codes and excerpts to describe participants' experiences, the nature of information they gathered and the means they used to gather it.

Results

The main themes identified in this study were; sources and means of access to information, use of ICTs, direct versus mediated ICT use, acquiring English language skills and willingness to learn about computers and ICTs.

Sources and means of access to information

Participants reported engaging a variety of digital as well as non-electronic means to access information about a wide range of matters. Similarly, many showed a capability to selectively choose a source recognised as an 'expert' on a topic, e.g. doctors for healthcare matters or more generally:

'You talk to people, people that you think might know a little bit more, have more experience than you.' (FG7–1)

Mutual help and community networks both featured strongly in information sourcing and sharing.

'Well we always we help each other in our community because somebody knows more ... we get the information we want.' (FG8–1)

Preferred means of receiving information were as varied as the participants were heterogeneous; participants in one focus group expressed a variety of means.

'Would like a lot of fliers at home ... so they can actually read it' (FG5–5)

'This lady said by telephone, she would like someone to actually ring her and tell her what's happening.' (FG5–6)

Many others used local or satellite television as an important source of information provided in their native language.

Many participants expressed a strong preference for direct personal contact for giving or receiving information.

'We prefer the one-on-one type of conversation getting information in that sort of situation where we just disseminate and get information from the person face on.' (FG2–2)

Direct use of computers and other digital technology

Participants reported a low rate of direct use of computers such that users were exceptions in the groups. Responses suggested that participants did not understand the technology:

'No, no, too dangerous' (FG6–9)

or had no interest:

'No time for them.' (FG5–6)

Among other reasons for not using email was, for example, the absence of connected recipients:

'Over in Italy they don't have one so that type of talk is not possible.' (FG1–3)

There were a few who did use a computer for simple word processing tasks or playing games.

Mediated use of computers and other digital technologies

Nevertheless, many participants were hands-off users of ICTs, for example engaging family to send emails on their behalf. Another, despite having expressed no interest in learning about computers, used a friend to e-trade on his behalf:

'If I want to order something, my friend he does it.' (FG8–2)

Many did not use mobile phones because of the cost or the problems they experienced while using the small keys or navigating the numerous functions offered on most phones. Use of mobile telephones was limited to emergency use:

'Mobile phone in an emergency' (FG4–6)

or for convenience:

'You have got your phone there and can use it straight away.' (FG2–4)

Acquiring English language skills

The majority of participants had had either no, or only rudimentary, English language skills on arrival in Australia, with some having attending English lessons on board ship. With few exceptions participants

expressed and demonstrated a determination to learn English, several going to considerable effort to do so.

> 'When I come here I was 15, I didn't go to school or anything but every day I was trying to read.' (FG2–2)

Others took considerable measures to learn quickly:

> 'I did a correspondence course in English on two occasions ... and plus I went to night school as well.' (FG2–1)

Several learned informally from English speaking colleagues, others out of necessity had different priorities:

> 'I went to work and make money.' (FG7–3)

Since ICT use was very low anyway, English language skills were not a major barrier to ICT use among this group.

Willingness to learn about computers

Many participants expressed no interest in learning how to use computers, citing their age or seeing no reason for doing so. Several participants perceived computers to be only for young people, one commenting:

> 'The internet is for the young people – old people don't understand.' (FG8–1)

However, some did express a degree of interest stemming from their children or grandchildren showing them what computers and access to the internet could provide, for example children using Google Earth to show parents images of their home village and surroundings, one participant commenting:

> 'My son show me where I was born. And look around. Beautiful.' (FG1–2)

A small number had also recently enrolled in an introductory course provided by an ethno-specific community organisation. There were, however, many more who expressed no interest in learning anything about computers.

Discussion

Overall, our findings concur with previous research that shows that older people use ICTs to a lesser extent than other age groups.[1] They therefore add weight to any calls on government and primary healthcare organisations to think clearly and carefully when planning further iterations of e-health initiatives, since they are likely to further exclude a significant proportion of the population. For example, if health messages were provided solely through government websites and mobile phone text alert services, the older people in our study would not directly find out about them.

The concept of the 'information broker' therefore becomes important for our study population, since although they did not directly interact with the ICT, they were in contact with people or organisations that facilitated access to the same information, albeit via a different route of supply. In this way, the older people in our study stated that they had access to all of the relevant information they needed in order to function in society with a desired quality of life. Possessing English language skills afforded participants access to a broader range of information sources, such as mainstream news services and other programmes on free-to-air television. However, these skills did not address the reluctance to learn how to use ICT or the complete rejection of ICT as a means of gathering information.

The points above highlight the fact that our study population did not use ICT to access information, but nevertheless obtained access to the same information via different routes. Therefore, in the current situation where information is available via multiple sources (and is not solely ICT-based), one may suggest that there is no real problem for these people, since they are still accessing the kinds of information they need in order to live their lives. This can be conceptualised in terms of the so-called 'knowledge society',[17] and more specifically within the area of 'functional knowledge'.[18] The concept of functional knowledge encompasses the idea that different people require different levels of knowledge (and hence information) in order to function within their roles in society. For example, a GP requires some specific 'specialty knowledge' in order to treat patients, which is different to the 'specialty knowledge' needed by mechanics to fix a car. In addition, adolescents require specific functional knowledge in order to function appropriately, which may well be different to the functional knowledge required by older people.

All of these different knowledge types are predicated on the notion that certain groups need to know certain things in order to live their lives (or to function) within their social milieu. The question then becomes, what do older people of Italian and Greek heritage in South Australia need to know, and more importantly (at least for policy makers and practitioners) are they currently getting access to this, or do we see the existence of functional knowledge deficits? The answer from our research is that, at the moment at least, our participants do not perceive any functional knowledge deficits. However, any future moves by governments or primary healthcare organisations to make health information solely available via ICT may lead to an increase in information exclusion, and the formation of functional knowledge deficits for older people. Therefore we recommend that governments and healthcare organisations evaluate the appropriateness

of using ICTs to directly provide information to older migrants, and consider non-digital means or the engagement of 'information brokers' when communicating with groups identified as low or non-users of ICTs.

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ETHICAL APPROVAL

This research project was approved by the Flinders University of South Australia Social and Behavioural Research Ethics Committee on 10 November 2008, Project No. 4322.

PEER REVIEW

Not commissioned; externally peer reviewed.

CONFLICTS OF INTEREST

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