RESEARCH IN PROGRESS: WHAT STRATEGIES ARE SENIORS USING TO REDUCE LONELINESS?

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ABSTRACT
In common with other countries that have an aging population, Australia has a looming problem in the forecasted growth of older citizens. Currently there is a sharp increase in public expenditure on care for people past the age of 80 and we can expect that to climb with continued improvements in medical care and other technologies to assist individuals live longer. Currently in Australia the policy is to keep seniors living independently in their own home for as long as possible. The area we are investigating is how can we support and teach skills to older people to live independently through the use of enabling technologies such as information technology. This support can be in the form of the provision of assistive tools to provide an environment for seniors that improves their quality of life in conjunction with reducing the demand on social services.

INTRODUCTION
In common with other countries that have an aging population, Australia has a looming problem in the forecasted growth of older citizens. Currently there is a sharp increase in public expenditure on care for people past the age of 80 and we can expect that to climb with continued improvements in medical care and other technologies to assist individuals live longer. Currently in Australia the policy is to keep seniors living independently in their own home for as long as possible. The area we are investigating is how can we support and teach skills to older people to live independently through the use of enabling technologies such as information technology. This support can be in the form of the provision of assistive tools to provide an environment for seniors that improves their quality of life in conjunction with reducing the demand on social services.

In this paper we further categorize older people into young-old (65 to 85 years) and older-old (over 85 years). The interventions we are discussing here are targeted at the young-old as they will provide these people with the skills to be able to live more independently when they reach the older-old category. As a demographic, people over 85 years old currently comprise 2% of the population in Australia however the current intergenerational report (Intergeneration report 2015) extrapolates that by 2054-55 this figure will rise to 4.9%. While the young-old currently comprise 13% of Australia’s population, in the next 40 years this will increase to 17.7%. It is predicted that this increase in life expectancy will be accompanied by an increase in healthy life expectancy as since 1998 any increase in reported life expectancy has been within the years that a person could expect to live without a disability. This means that we can assume that as a population we will be active and able to live independently longer. Currently there is a sharp increase in the consumption of public spending on aged care past the age of 80 with the spending on health for a person over 85 being four times the spending on an
average person, hence the predicted 2.45 times increase in this demographic will impact on public spending in health and social services (Intergeneration report 2015).

Approximately 36% of older Australians (65 or older) live in rural/ regional Australia and this represents some challenges for rural communities (Davis & Bartlett, 2008). Regional areas also have a higher proportion of seniors than urban areas. The move from active paid work into retirement is a time of transition for people and the skills, knowledge and experience gathered through active participation in the work force and community can be lost resulting in a loss in community social and human capital. With the transition to retirement comes a reduction in the number of social connections as the connections made through work are lost. In regional and rural Australia many seniors have had their identity as a primary producer or primary producer's helpmate stripped away by a loss of physical ability or a move to a larger regional centre to be nearer to health services. This move shatters their strong ties to their communities, disrupting social networks and their preferred informal support network (Davis & Bartlett, 2008). Even those who are able to stay in the rural community have their social network fractured by their peers moving (Franklin & Tranter, 2008). This is at a time where they have an increased amount of time on their hands and an increased need for social connections outside the home (Felmlee 2009). The common move into larger regional centres also brings the challenge of forging new social connections, this process is critical as loneliness can easily be a common theme in this situation.

In Australia loneliness is a large problem as 50% of people over 61 experience loneliness, 26 to 29% are chronically lonely with men experiencing more extreme forms of loneliness (Franklin & Tranter 2008, p. 10). Loneliness is associated with higher stress ratings, an increased risk of heart attacks and cardiac deaths (Hawkley et al. 2003), depression (Cacioppo et al. 2006), other psychiatric disorders such as schizophrenia (House, Landis & Umberson 1988), reduced physical activity (Hawkley, Thisted & Cacioppo 2009) and acts as a risk factor for increased morbidity and mortality (Hawkley et al. 2003). Depression alone results in up to a 50% increase in general medical expenses (Druss, Rohrbaugh & Rosenheck 1999) with the lonely reporting their health as twice as bad as those who are not lonely (Easton 2011). Inversely an increase in social relationships is associated with significant benefits to behaviour, mental and physical health with people with good social connections being healthier and living longer (Umberger & Montez 2010). Loneliness cannot be cured by placing seniors in proximity to community centres, they need to form meaningful relationships in order to build social networks (Easton 2011). The conundrum for older rural citizens here is a need to access the medical and transport infrastructure associated with urban communities with the loss of community ties and social networks that have been developed over many years. This is of course is also exacerbated by the death of close friends and relatives as people get older.

**IMPLICATIONS OF LONELINESS**

In Australia, around 45% of adults (7.3 million between the ages of 16 – 85 years) experience a mental disorder in their lifetime with the prevalence in older people over the
age of 65 years increasing in recent times (AIHW 2014). Indeed, more than half of those seniors (52%) who are permanent aged care residents have symptoms of depression (AIHW 2013). Depression is a common mental disorder that, worldwide, affects 350 million people of all ages and is the leading cause of disability globally (WHO, 2012). Depression is on the rise and can vary in intensity, at worst leading to suicide. Despite there being known effective treatments, fewer than half of those individuals living with depression receive treatment (WHO, 2012). Late-life depression is defined as the suffering of people over the age of 65 from depression (Alexopoulos, 2005) with the causes being i) social isolation and loneliness; ii) physical ill health; and iii) loss of a partner (Black Dog Institute, 2012). Furthermore, being a non-physical issue, depression is often overlooked by health practitioners in favour of physical ailments (Snowdon 2001) with a lack of resources and the stigma associated with mental health issues also providing major barriers to effective treatment (WHO, 2012)

The consequences of depression for older people are different to that for younger people (Yesavage et al., 1983; Schoevers et al., 2000; Licht-Strunk et al., 2009; Verhaak et al., 2014). While late-life depression does not necessarily lead to suicide, it is a contributing factor (Australian.gov ref: http://www.mindhealthconnect.org.au/depression; Bamonti, Price and Fiske, 2013). The mortality rate of older people who attempt suicide is greater than that of younger people (Nock, 2014). There are a number of factors known to contribute to the development of late life depression and they are: loneliness (Theeke, 2009), living alone (Victor et al., 2000), marital status (Savikko et al., 2005), the lack of social networks (Cutrona, Russell & Rose, 1986), poor quality connections with others (Holmen & Furukawa, 2002), cognitive decline (Dejernes, 2006); and low income (Aylaz, et al., 2012). These factors are interconnected, with the role of social connections and are the core theme that is strongly related to late-life depression (Verhaak et al, 2014). Loneliness, be it perceived or experienced, was evident in a large number of studies and is identified as the strongest predictor of late-life depression (Theeke, 2009). Loneliness predominantly results from living alone which reflects marital status with either the death of a spouse leading to living alone (Aylaz et al., 2012) or the lack of family to socialise with for those who have never married (Vink et al., 2008).

The lack of a social network, which occurs in part due to family members moving to other cities (Aylaz et al., 2012), is detrimental to people’s sense of worth and self-esteem as they do not feel respected and needed (George et al. 1989; Cutrona, Russell & Rose, 1986). Furthermore, with age the number of friends tends to decreases due to death and illness leading to less social interaction (Holmen & Furukawa, 2002). Cognitive decline resulting in confusion, decreased coordination and speech and memory loss lead to negative feeling in individuals about their condition and they reduce their social interaction (van't Veer-Tazelaar et al., 2008). Finally, low incomes limit the ability of older people to pay for social activities which constrains social interaction (Aylaz, et al., 2012)

Loneliness begets loneliness. Loneliness and isolation (physical and/or mental) are known to lead to anxiety, shyness, anger, tension and late-life depression. As a consequence of these factors, sufferers feel even more isolated and alienated (Aylaz, et al., 2012). Mehta et al (2008) classified older-old differently to our current category, namely over 80 instead of 85, however in their research they reported at a more nuanced level, the antecedents of depression are known to vary between the ‘young-old’ (65-80 years) and the old-old (>80 years) (Mehta et al., 2008)
Community
Throughout the research, there is a strong indicator that community is a very important factor. There is the plurality of definitions for a community. Should we define a community as a geographical area or a social network of people with shared experiences, interests, tastes and values who may reside in geographically diverse locations Piselli’s (2007). A definition of community based on social networks rather than geographical places adds to the complexity of funding of social services. Hillery Jr’s (1955) work looked at commonalities in the definition of a community for rural people and found that for the majority of people a location is capable of furnishing a common bond. A minimum definition was "an area in which social interaction and one or more common bonds are to be found". Piselli (2007) adding that a physical location can help drive how social events are organised and a feeling of local identity can help to drive shared experiences and therefore increase social connections. MacQueen et al. (2001, p. 1929) offers an alternative definition of an urban community from a public health perspective "as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings". These two definitions of community across a range of time periods and locations show that an argument can be built to use a geographical location to set community parameters. So as Piselli (2007) states social connections cannot be driven by proximity therefore rather than clustering seniors together, do we need to provide other mechanisms for seniors to avoid social isolation? However Felmlee (2009) states that friends are more important than family for seniors confidence and self-esteem.

Social marketing
In this paper, we are suggesting that social marketing has a role in defining the factors associated with loneliness amongst older people. Social marketing addresses public health and social issues in ways that enhance peoples’ quality of life (Hastings et al., 2012) with the principle remit to enhance the well-being of individuals and society at large (Hastings et al., 2012). It can be seen from the growing number of social marketing case studies, successful outcomes result from a precise and nuanced understanding of the cause, its antecedents, enablers, barriers and consequences. It is this foundation knowledge that leads to the careful design and operationalization of appropriate interventions, be they ‘downstream’ interventions to individuals, “upstream” interventions to authorities, ‘midstream’ interventions targeted at other stakeholders or hybrids of these (Hastings et al., 2012; Hoek and Jones, 2011).

Recently there has been a growing interest among social marketers about the use of social media to effectively engender behaviour change for the social good (Gordon, 2012). The capability of social media to build social connections and create communities is increasingly seen as a potential remedy to address social loneliness, a key precursor to late-life depression among seniors (WHO, 2012). Mental health is important to healthy ageing (WHO, 2013). Interventions that enable the maintaining and building of social connections and a sense of community among seniors have the potential to reverse or stem the onset of late-life depression; the consequences of which are considerable for the individuals, their family and friends and society at large.

It can be seen that social marketing interventions to address depression in older people could not only improve the quality of life of older people, but potentially reduce
suicide attempts and unnecessary deaths. Social marketing interventions that seek to encourage older people to be socially active and enables them to have and maintain a good support network with family, friends and carers are recommended (Victor, et al., 2000; Verhaak et al., 2014). Social marketing also provides an opportunity to situate the community health initiatives within the community, so that the community is in partnership with the community health providers.

A RESEARCH APPROACH USING SOCIAL MARKETING AND SOCIAL NETWORKING TOOLS
Virtual social connections can be made through social networks such as "Facebook" as they have the ability to increase bonding between "friends" and increase a person’s social capital by lowering the barriers to communication (Burke, Kraut & Marlow 2011). People may use social networks to cope with a feeling of disconnection and because they find their use rewarding and providing a positive substitute for face-to-face contact (Sheldon, Abad & Hinsch 2011). Burke et al. (2011) found that positive benefits were increased by using directed communication with a friend rather than broadcasting a message or passively consuming others news. Directed communication acts to keep a channel of communication open even when in-person contact is not possible making maintaining friendships over geographical distance possible. Ease of communication in social networks having the ability to increase the value of a friendship, or deepen a casual friendship. Two studies conducted by Nimrod (2010) found that online social networks had the ability to enhance social structures and provide an enjoyable leisure activities in seniors. Chen (2009) states that the current mainstream social networks such as "Facebook" are aimed toward their younger primary audience and the services and facilities do not meet senior’s requirements. So it is not possible to merely suggest to seniors that they use an existing social networking medium such as Facebook but an online social network still has the potential to assist in increasing social connections. Heo 2010 found that seniors who used the Internet as a leisure activity were highly satisfied with the activity in the dimensions of entertainment, relaxation and social information. Gatto and Tak found that seniors using a computer reported the feeling of being connected, a feeling of satisfaction with the information found and increased self-esteem from the learning process. However some seniors reported that they were frustrated with the amount of time it took them to learn computer skills and a concern with privacy and a concern that they might become addicted to the internet.

Access issues
A Queensland 2009 study of home computer use found that 87.88% of 55-64 year olds and 61.1% of 65 years and older Queenslanders had access to a computer, with both the sectors growing strongly from 2008. Internet use was 83% in the 55-64 sector and 53.3% in the over 65 year olds. The yearly growth rate was 7.8% for the 55-64 year olds and 4.8% for the over 65 year olds. The lower growth rate in the over 65 year old sector might be explained by the wider age range in this sector. These statistics demonstrate that the majority of over 55 year olds have access to computers and Internet use so that this does not form a barrier to the adoption of an online system.
The role of social marketing

While social networks for seniors (Chen 2009; Nimrod 2010, 2011) and the information technology education needs for seniors (Sayago et al. 2007) have been previously explored, the use of social marketing techniques in this space has not been done and an education component to build social skills has not been embedded in within a social network. However Leist 2013 states that online communities provide a suitable tool for social support and that social media also offers an opportunity to include educational materials. This research will endeavour to use marketing techniques to increase social connections in seniors to increase the knowledge base of how to actively engage a growing sector of the community, seniors in community capacity building strengthening the ability of the community to solve social problems internally. This research also has the capacity to leverage the higher Internet speeds predicted to be available by training a group of people not previously exposed to information technology. This sector of the community has the potential to be one of the biggest consumers of e-services facilitated by these higher speeds such as e-health and e-government so that a group of trained people who are already actively engaged in community service have the ability to disseminate learnt skills through the community.

THE RESEARCH QUESTIONS

In order to investigate loneliness among older people, we will be looking at the factors associated with loneliness and determining if a social marketing approach can assist in reducing a person’s loneliness. In addition we wish to determine if ICT can be used as an enabling technology to utilize contextually relevant social marketing approaches to reduce the level of loneliness. Therefore our research questions are as below;

RQ 1 What are the factors that cause loneliness amongst seniors?
RQ 2 Can social marketing approaches assist in reducing loneliness?
RQ 3- Does ICT have a role in providing an enabling technology to help people overcome loneliness?
RQ 4- What ICT approaches can be deployed?

The research approach

We will be using a mixed methods approach in researching this problem. Firstly we will conduct a qualitative investigation to discover the factors that trigger loneliness among older people living in regional areas. Secondly we will be looking at the acceptability of a social marketing approaches and whether they can reduce loneliness. Here we will be using focus groups and interviews from seniors across our target region, namely the Sunshine Coast in Queensland, Australia. These qualitative approaches will inform the construction of a quantitative research instrument that will be distributed more widely. This survey will be designed to allow older people to provide input into suggestions on what social marketing approaches will be used and how we could use ICT to enable the use of such approaches across a wide area.

CONCLUSIONS

The approach undertaken here needs the co-operation of members of the senior’s community. We are fortunate in this case as the targeted area has a great number of
retirees from all walks of life and from all states of Australia. This is because the environment (sub-tropical) is very conducive to retirement living. In addition the University of the Third Age has a strong base of willing people who are happy to be involved with the research. The university of the third age is described as a “worldwide self-help organisation promoting learning for personal enjoyment and satisfaction” (http://www.u3abrisbane.org.au/)

This research has significance for future generations as any reduction in the cost of healthcare for the elderly will help balance future government budgets. These savings stretch well beyond the direct aged care considerations such as housing etc. This is because reducing loneliness can also reduce other medical conditions such as depression and other situations associated with loneliness including possible suicide.

It is also hoped that once the relevant social marketing approaches have been identified that apps can be developed for tablets or smartphones that will allow ICT technology to become an enabler for older people to communicate with newly acquired friends. This approach will be different to the traditional social media approaches such as Facebook etc. as in will be targeted to older people and will be contextually appropriate to this older group who in many cases are not as computer literate as others.

REFERENCES


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