

An Ecological Account of Seniors' Attitudes to Physical Activity: Social Marketing Implications

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Abstract

Social marketing has an important role to play in addressing population overweight by encouraging individuals to engage in higher levels of physical activity and assisting policy makers in developing upstream programs to create social and physical environments that are conducive to this behaviour. Older Australians need particular attention as they have been neglected in previous Australian media campaigns designed to encourage increased physical activity and they remain an under-researched group despite their growing segment size and their heightened need for regular exercise to prevent age-related illnesses. The present study adopted the ecological model of behaviour analysis to explore the many and varied factors influencing seniors' physical activity levels. Specific recommendations for future interventions targeting this group are provided.

Keywords: behaviour change, exercise, health promotion, physical activity, obesity

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Introduction

Efforts to enhance the health of the Australian population have to contend with a population that is getting progressively fatter (ABS, 2009). This state of affairs is due in large part to individuals taking inadequate physical exercise and consuming diets that include too many foods that are high in fat, sugar, and salt and too few fruits and vegetables (Weksler, 1999). In addition, the world-wide ageing phenomenon is well progressed in Australia where almost 30% of the population is forecast to be aged 65 years or older by 2051 (Australian Bureau of Statistics (ABS), 2004). Older age is associated with higher body mass index scores (Gariballa and Sinclair, 1998; Weksler, 1999), indicating that as the population ages the obesity problem will escalate. Numerous serious illnesses are associated with overweight, including diabetes, heart disease and cancer (Friedrich, 2003). It is thus apparent that excess weight at the population level is a major problem that has far-reaching individual, social, and economic implications.

Social marketing has an important role to play in addressing population overweight by encouraging individuals to adopt healthier habits and assisting policy makers in developing upstream programs to create social and physical environments that facilitate healthy behaviours. However, such campaigns and programs need to be sensitive to the varying situations of different population segments (Bauman et al., 2006; Boslaugh et al., 2005). Older people, for example, have been identified as needing particular consideration as a communications audience because of their greater heterogeneity due to more extensive and varied life experiences, their stronger health-related motivations, and the physical deterioration that occurs with age that affects message processing (Moorman and Matulich, 1993; Moschis, 1996; Rice and Okun, 1994).

The purpose of the present study was to investigate West Australian seniors' attitudes to physical activity (PA) and their awareness of current PA guidelines. The findings can be used to inform future interventions aiming to increase PA among members of this group to reduce their likelihood of becoming overweight and developing weight-related illnesses in later life. Despite their (1) increased susceptibility to overweight and sedentary lifestyles (ABS, 2004) and (2) greater tendency to do insufficient PA with weaker intentions to do more (Armstrong, Bauman and Davies, 2000), older Australians have been largely neglected in campaigns designed to promote PA. For example, the current national *Measure Up* campaign and West Australian *Find Thirty® everyday* campaign were designed to target 25-60 year olds and 25-54 year olds respectively¹. This situation needs to be addressed as encouraging older people to exercise has benefits over and above the prevention of weight-related illnesses. Regular PA prolongs the period for which individuals can perform their own "activities of daily living", thus extending their independence (Friedrich, 2003). It can also assist in preventing the onset of mental illnesses such as dementia (Vaillant and Mukamal, 2001). The one program that has focused on older Australians is the *Living Longer Living Stronger™* (LLLS) program which is a service-based program that involves partnerships between the fitness industry and the health sector to deliver strength training to older Australians (Byrush and Hendy, 2004). LLLS commenced in 1999 in Victoria and is now operating in four Australian states including Western Australia². While the *Measuring Up* and *Find Thirty® everyday* campaigns have been communicated to the public via

¹ See www.measureup.gov.au and www.find30.com.au.

² See www.dva.gov.au/health/health_wellbeing/living_longer.htm.

the mass media, the LLLS program has not and recent research suggests that many older people remain unaware of its existence (National Ageing Research Institute with Council on the Ageing, 2008).

Method

The present study adopted the ecological model of behaviour analysis to explore the many and varied factors influencing seniors' PA levels. This model requires consideration of the individual, group, institutional, social, and policy variables that influence specific forms of behaviour (Linnan et al., 2001). The ecological model has been widely used in the field of public health (Yancey et al., 2004), and has been specifically recommended for use in the context of PA because of its explicit recognition of multiple categories of influencing factors on individuals' PA behaviours (Sparling et al., 2002). A qualitative approach was used to provide the level of detail required to facilitate the taxonomical process of mapping the identified factors according to the downstream and upstream behavioural determinants specified in the ecological model.

Twelve individual interviews and six focus groups were conducted with West Australians aged 50 years and over exhibiting a range of sociodemographic profiles. At this point conceptual saturation was achieved and data collection ceased. The total sample was comprised of 59 seniors reflecting variation according to gender, age (50-64, 65+), working status (working, semi-retired, retired), and perceived physical health (poor/fair, good/excellent). Only community-dwelling (non-institutionalized) individuals were included in the study as those who are free-living have more control over their adoption of recommended PA behaviours. A recruitment agency used a combination of random digit dialling and respondent databases to identify and recruit potential study participants who were told the research related to the general topic of health. The study protocol was approved by a university ethics committee.

During data collection, interviewees and focus group participants were first asked to discuss the topic of health in general, which inevitably resulted in discussions relating to PA. This issue was then probed in detail to explicate the various factors that impact seniors' intentions to engage in PA. Interviewees were also asked if they could recall any PA guidelines and, if they could, how they felt about those guidelines. The individual interviews ran between 20 and 45 minutes and the focus group interviews between 60 and 90 minutes. All interviews were audio taped and the digital recordings subsequently transcribed. The transcriptions were imported into NVivo7 (a qualitative data analysis software program) for coding and analysis. Theoretical nodes were created prior to coding based on the extant literature and inductive nodes were introduced throughout the coding process to allow emergent concepts to be incorporated. Reiteration between individual content nodes, node intersections, and the full transcripts facilitated the identification of relevant themes.

Findings

Intra-personal (individual) factors

The physical characteristics of the older person were attributed great importance by interviewees in their accounts of their own and their peers' engagement in PA. In terms of physical condition, some interviewees discussed general (e.g., not as much energy) and specific (e.g., arthritis,) forms of physical deterioration that prevented them from being as active as they would like. Physical condition also operated as a motivator as many interviewees expressed a

desire to remain as independent as possible for as long as possible and they saw regular exercise as one means of accomplishing this goal.

Financial situation was another characteristic that was considered relevant because many PA options (e.g., gyms) require payments that can be beyond the means of pensioners. This can be a substantial barrier to PA among those seniors with health problems who need monitoring and/or advice during exercise. Time constraints were also problematic, especially for those who were in paid or volunteer employment. Interviewees facing a lack of time for exercise could not generally see a way around this and instead accepted it as a non-ideal situation. Lastly, many of those reporting that they did not engage in regular PA cited a dislike for exercise as a primary barrier. For these individuals, exercise constitutes a tedious and unpleasant use of time. Alternatively, those who exercised regularly often described the physical, mental, and/or social enjoyment they receive by doing so. Attitude to exercise was thus found to be another important factor in determining interviewees' actual and desired PA levels.

Interpersonal (small group) factors

As alluded to above, the social aspects of PA influenced interviewees' attitudes to, and participation in, PA. Both the men and women often commented that exercise is much more enjoyable when taken in the company of others, and that the presence or absence of others was a key determinant of whether they commenced and/or maintained a regular exercise program. Some achieved interaction with others by taking advantage of formal exercise programs such as those provided by gyms or retirement villages. Others organised to go walking, cycling, or swimming with their spouses or other members of their social networks.

As well as providing companionship and social interaction, for some interviewees the group approach served as a motivator because it formed a form of obligation that meant they were letting others down if they did not participate. For others, exercising in groups provided safety (e.g., if they hurt themselves or suffered a heart attack) and/or security (e.g., prevent them from being the targets of crime). A lack of others to exercise with constituted a significant barrier for many interviewees. The need to break into existing friendship groups at an exercise venue was reported to be very daunting, especially by the female interviewees.

Institution/organisation factors

Three forms of institutions/organisations were described by interviewees as being instrumental in determining both their current and past activity levels. Schools were mentioned as institutions that are fundamental in forming individuals' attitudes to exercise and therefore the likelihood of participation in PA across the lifespan. Some interviewees commented that they had enjoyed sport at school which made it relatively easy for them to keep up their activity levels in the post-school years.

The second type of organisation that was mentioned by interviewees was gyms and other exercise clubs/venues, including the LLLS program, swimming pools, and walking clubs. Gyms were viewed as useful for obtaining advice from exercise professionals and for accessing structured, timetabled exercise sessions that are immune from adverse weather conditions. However, some interviewees reported gyms to be unsatisfactory for a range of reasons including (1) the psychological discomfort experienced when attending on one's own (i.e., without peer support) and when wearing clothing that is not typical of that worn by other patrons, (2) the cost of membership/attendance, (3) the risk of being pushed too far and suffering pain and

consequently decreased motivation to exercise in the future, and even (4) the smell. The LLLS program was sometimes cited as overcoming many of these problems by being patronised by others of a similar age and fitness level who also wore baggy clothing.

The third organisation discussed was the workplace. Some employed interviewees commented that modern working conditions are not conducive to PA and that at-work exercise programs have been used successfully in the past and in other countries and could be effectively introduced here and now. For example, participants in one focus group animatedly discussed how the reported Chinese model of employees engaging in group tai chi sessions during working hours would be one way of allowing working people to achieve a higher level of daily PA.

Community/social factors

Few of the interviewees' comments explicitly related to community/social factors. This is not unexpected given the largely unappreciated role played by these factors in individuals' lives and therefore their inability to articulate the nature of this role. It was, however, possible to perceive social influences in interviewees' discussions of media coverage of health issues, especially those relating to diet and exercise. Many appeared to rely on the media for current knowledge in this regard, although some expressed frustration at the apparent constant changing of opinion on the subject. In addition, some interviewees reported involvement with community sporting teams which facilitated regular and vigorous exercise. The desire to engage in social interaction while exercising also has relevance for this category of influencing factors.

Policy factors

In the context of this study, policy factors related to interviewees' awareness of current PA guidelines, their attitudes towards these guidelines, and their (intended) compliance with the guidelines. The "30 minutes" message appeared to have been generally assimilated, although there was considerable confusion about how frequently this applies. Reflecting the change in this recommendation over the years, some interviewees cited 30 minutes three times a week while others cited 30 minutes most days or everyday (the correct current guideline) as the desired level of PA for general health. Few interviewees appeared to recognise that this is a lower limit rather than an absolute guideline. Regardless of which variation of the message they received, there was a general consensus that it is a reasonable guideline and one to which they should aspire. However, some noted that population-level guidelines were less likely to apply to older people given their physical limitations and therefore that they should only engage in levels of activity they felt comfortable with rather than necessarily aiming for 30 minutes.

Some interviewees demonstrated a more advanced knowledge of PA guidelines when they discussed (1) the ability to engage in incremental bouts of activity rather than needing to exercise for the full 30 minutes in each session and (2) the need for weight bearing exercise in the later years to prevent bone loss. Levels of awareness relating to PA options available in their local areas were low, and numerous interviewees commented that they would like more information about available programs.

Discussion

The ecological model provided a useful framework for assessing the barriers and motivators affecting older Australians' PA levels and how these may be accommodated in future downstream and upstream social marketing efforts. The present analysis highlights the importance of numerous individual, group, institutional, social, and policy factors in influencing seniors' PA behaviours, leading to the following recommendations:

1. A life course approach (see Settersten and Mayer, 1997) that seeks to encourage PA across the lifespan to ensure favourable exercise-related attitudes and behaviours in later life appears to be warranted. Those interviewees demonstrating the most interest and engagement in PA often reported a life-long favourable disposition to exercise. In particular, schools have an important role to play in: (i) fostering a desire to exercise through pleasant experiences, (ii) providing exposure to a wide variety of activities to maximise the potential for individuals to find a type of exercise that suits them, and (iii) providing information about the benefits of PA across the lifespan.
2. Previous research has suggested that older people are less aware of PA recommendations than are younger people (e.g., Sims et al., 2007). While the nature of the present study precludes comparisons with younger age groups, relatively few interviewees were confident and correct in their reporting of the current recommendation (i.e., 30 minutes of PA per day). Future campaigns should consider the particular needs of seniors and ensure that appropriate messages for this target audience are disseminated and received.
3. Managers of commercial exercise venues could improve their recruitment and retention of older clients if they received reliable information relating to: (i) how to effectively identify and approach older people to inform them of their services and to invite them to participate, (ii) the importance of social interaction to older patrons and how to achieve this, (iii) how to price segment the market to ensure services offered to older clients are affordable but profitable for the organisation (e.g., off-peak memberships), (iv) the need to provide an environment in which clothing styles do not constitute a barrier to participation (e.g., running baggy t-shirt classes), (v) accommodating seniors' desire for access to trained professionals through, for example, using physiotherapists to run seniors' classes, and (vi) providing information sheets (to allow the self-pacing of information (Tongren, 1998)) to seniors to explain the benefits of regular exercise, list current PA recommendations, and provide information about planning their exercise to improve fitness over time without initial pain
4. Information could be provided to seniors about their safety when exercising in public places to counteract the sensation-seeking media reports relating to elder abuse in the community.

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