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#### Abstract

This conceptual paper provides a rationale for combining health behaviour theory with a social marketing framework in order to develop a community-level asthma campaign for adults aged 55 years and older. The prevalence of asthma in older adults in Australia is approximately 10%, higher than in many other countries, and asthma mortality increases with age. In addition, older adults' perceptions of asthma causes and treatments are often inaccurate. Many older adults believe that asthma is a childhood disease and that the effects of the condition are relatively minor and would not impact on daily life. In order to address these misperceptions, it is useful to utilise the constructs of the Health Belief Model in conjunction with a framework for the development and implementation of a health promotion effort. The social marketing framework is directly aligned with the most successful methods of promoting health to older adults; tailoring health messages (promotion) to individuals and the community that they are living in, actively involving the older adults themselves to understand their health beliefs and behaviours, empowering individuals by reducing barriers to action (price), enabling individuals to take control of their health (product) through increased knowledge, and ensuring ease of access (place) to health messages and promotional activities. The segment of the population aged 55 years and over not only has a demonstrated need for asthma awareness but also has been largely ignored by past asthma awareness activities. To extend the efforts of previous health promotion efforts, a campaign must be developed, implemented and evaluated to specifically target older adults about asthma to address their low perceived susceptibility to, and severity of, the condition. This paper presents a conceptual framework for the application of the Health Belief Model and social marketing theory to influence the asthma perceptions of older adults.

#### Keywords

adults, older, asthma, about, campaign, level, health, community, combining, develop, marketing, social, model, belief

#### Disciplines

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# COMBINING THE HEALTH BELIEF MODEL AND SOCIAL MARKETING TO DEVELOP A COMMUNITY-LEVEL CAMPAIGN ABOUT ASTHMA FOR OLDER ADULTS

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# Abstract

This conceptual paper provides a rationale for combining health behaviour theory with a social marketing framework in order to develop a community-level asthma campaign for adults aged 55 years and older. The prevalence of asthma in older adults in Australia is approximately 10%, higher than in many other countries, and asthma mortality increases with age. In addition, older adults' perceptions of asthma causes and treatments are often inaccurate. Many older adults believe that asthma is a childhood disease and that the effects of the condition are relatively minor and would not impact on daily life. In order to address these misperceptions, it is useful to utilise the constructs of the Health Belief Model in conjunction with a framework for the development and implementation of a health promotion effort. The social marketing framework is directly aligned with the most successful methods of promoting health to older adults; tailoring health messages (promotion) to individuals and the community that they are living in, actively involving the older adults themselves to understand their health beliefs and behaviours, empowering individuals by reducing barriers to action (price), enabling individuals to take control of their health (product) through increased knowledge, and ensuring ease of access (place) to health messages and promotional activities. The segment of the population aged 55 years and over not only has a demonstrated need for asthma awareness but also has been largely ignored by past asthma awareness activities. To extend the efforts of previous health promotion efforts, a campaign must be developed, implemented and evaluated to specifically target older adults about asthma to address their low perceived susceptibility to, and severity of, the condition. This paper presents a conceptual framework for the application of the Health Belief Model and social marketing theory to influence the asthma perceptions of older adults.

# Introduction

Asthma is a chronic disease characterised by the inflammation of the airways; it affects over 2 million Australians (Australian Centre for Asthma Monitoring, 2008). The inflammation associated with asthma causes recurring episodes of breathlessness, coughing, chest tightness, and wheezing, predominantly at night or in the early morning (National Asthma Council Australia, 2006). These episodes

are typically coupled with airflow obstruction, the narrowing of airways, which can be alleviated either spontaneously or with treatment.

Compared to international levels, the prevalence of asthma in individuals aged 55 years and over in Australia is very high, with approximately 10% of Australian older adults affected (Australian Centre for Asthma Monitoring, 2008). While the prevalence of asthma has steadily decreased in children and young adults over the past decade, prevalence in older adults has remained unchanged (Australian Institute of Health and Welfare, 2010). Contrary to perceptions held in the community, asthma can develop in older adults (Adams & Ruffin, 2005). The overall asthma mortality rate due to asthma has decreased by almost 70% since 1989, which might be attributed to health promotion efforts directed largely at children and their parents and caregivers (Australian Centre for Asthma Monitoring, 2008). In 2006, 402 deaths were attributed to asthma, and 92% of those people were aged over 45 years (Australian Institute of Health and Welfare, 2010). Despite this large decline in mortality, the current mortality rate for older adults in Australia of around 8 deaths in 100,000 people is higher than international rates; and the risk of dying from asthma increases with age.

The literature demonstrates that asthma is under-diagnosed, often misdiagnosed, and undertreated in the older adult population both in Australia (Gibson, McDonald, & Marks, 2010; Marks & Poulos, 2005; Wilson, Appleton, Adams, & Ruffin, 2001) and abroad (Braman & Hanania, 2007; Isoaho, Puolijoki, Huhti, Kivelä, & Tala, 1994; Quadrelli & Roncoroni, 2001; Stupka & deShazo, 2009). In the past, asthma-related health promotion has been primarily aimed at children and their caregivers. However, there is a genuine need for community-focused asthma awareness campaigns targeting older adults (Barnard, Pond, & Usherwood, 2005).

# Social Marketing Strategies for Health Promotion

Social marketing is "the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, for a social good" (French & Blair-Stevens, 2007). Governments and health organisations regularly utilise aspects of social marketing strategies to convey health messages to mass audiences. The National Social Marketing Centre has produced a set of best-practice, benchmark criteria for social marketing (French & Blair-Stevens, 2007). These criteria are customer orientation, behaviour, theory, insight, exchange, competition, segmentation, and methods mix and each must be present and properly addressed in a social marketing effort for maximum impact and effectiveness. Table 1 presents a brief description of these eight criteria.

*Table 1.* The eight benchmark criteria of social marketing (French & Blair-Stevens, 2007)

Criteria	Description
Consumer Orientation	Entire process from planning to formative research and implementation to evaluation must be consumer-focused. Every aspect must relate to the evidence-based needs and wants of the target audience; consumers must be involved in each step of the process to ensure a satisfying exchange.
Insight	Necessary to understand the beliefs and motivations of consumers; this insight is gained through planned, regular interactions with the target audience.
Theory	Intervention should be informed by behavioural theory; especially theory that takes account of physical, psychological, social, and environmental factors.
Behaviour	Clear focus on a specified behaviour change target within any social marketing intervention, with specific and measurable behavioural goals.
Exchange	Costs and benefits of behaviour change in the target audience must be well understood from the consumers' perspective to ensure the greatest personal benefits can be gained from the least personal cost.
Competition	Behaviours and services that compete with the specified behaviours for the target audiences' time and attention must be understood and addressed.
Methods Mix	Range of methods should be adopted, avoiding reliance on a single approach; operationally, the marketing mix (or "4Ps"; product, price, place & promotion) is utilised to form an integrated marketing strategy.
Segmentation	Important to avoid "blanket" approaches; rather, segmentation should group audiences on relevant personal characteristics, past behaviours, and/or benefits sought in order to identify a viable target audience. Psycho-graphic data are often used to define and understand target groups.

Social marketing techniques have been used effectively in public health interventions (Lefebvre & Flora, 1988). Further, social marketing can and should be positioned as a planning process for health education (Neiger, Thackeray, Barnes, & McKenzie, 2003). Systematic reviews of general social marketing effectiveness have found that social marketing interventions can be effective specifically in improving health across a variety of health behaviours and target

groups (Gordon, McDermott, Stead, & Angus, 2006; Stead, Gordon, Angus, & McDermott, 2006).

#### Promoting Health to Older Adults

As people are living longer and the population is ageing, it is imperative to direct more preventative and health promotion messages to older adults. A recent overview of evaluated health promotion programs for older adults emphasised that the aging population has increased the demand for health promotion, particularly about chronic disease, and stressed that program effectiveness must be assessed for the benefit of future efforts (Bryant, Altpeter, & Whitelaw, 2006).

The factors that influence the success of health behaviour change among older Australians were highlighted in a recent review (National Ageing Research Institute, 2004). The report concluded that health behaviours can be changed by empowering older individuals through the provision of appropriate information and communication. Similar conclusions have come from abroad. A report commissioned by the government of Wales found that the literature had recurring themes surrounding age and heterogeneity; older people should be able to benefit from health promotion activities regardless of their age, and that interventions are most effective when they are tailored to specific needs (Windle et al., 2003). Further, initiatives should empower and enable older persons through raised awareness and knowledge of a health issue. Finally, the review found that health information can be effectively communicated to older people through health professionals. In the European Union, researchers developed guidelines by appraising over 30 relevant health promotion projects aimed at older adults (Lis, Reichert, Cosack, Billings, & Brown, 2008). The proposed recommendations are consistent with key elements of the social marketing framework including involving all important stakeholders in planning and implementation, reaching target groups through the use of "key persons", actively involving the target group, and ensuring ease of access to promotional activities. In addition, the report encouraged the empowerment of older people to motivate them to take responsibility for their own health and well-being.

Various studies have examined community-based health awareness programs for older adults in relation to different health conditions including diabetes (Gallivan, Lising, Ammary, & Greenberg, 2007), heart disease (Wayman, Long, Ruoff, Temple, & Taubenheim, 2008), breast cancer (McCormack Brown et al., 2000), cardiovascular health (Chambers et al., 2005) and hypertension (Petrella, Speechley, Kleinstiver, & Ruddy, 2005). However, there has been little effort directed towards promoting asthma awareness to older adults, even though individuals can develop asthma in older age. This lack of asthma awareness efforts targeting older people may be due to a community perception that asthma is a childhood disease (Andrews & Jones, 2009). In order to produce and maintain significant health behaviour change within communities, health promotion efforts must have some theoretical foundation (Glanz, Rimer, & Lewis, 2002). The combination of the social marketing framework and the Health Belief Model (Rosenstock, 1974) would provide a solid foundation for an asthma awareness campaign targeting adults aged 55 years and over.

#### The Health Belief Model (HBM)

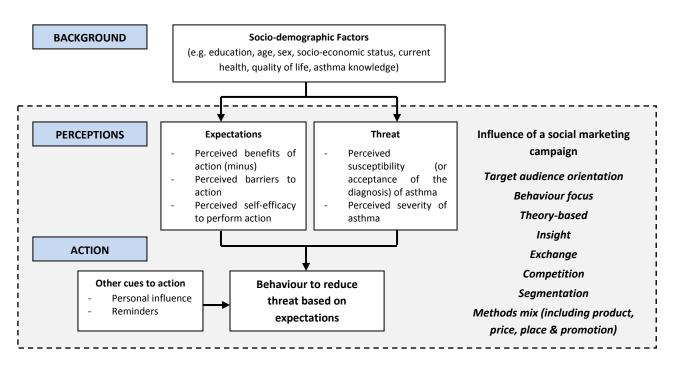
The HBM is a value expectancy theory designed to predict health behaviours (Rosenstock, 1974). The model consists of five key constructs: individual perceptions of susceptibility, severity, barriers to action, benefits of action, and self-efficacy (Rosenstock, Strecher, & Becker, 1994). In addition, the model addresses cues to action, and notes the impact of demographic and socio-psychological factors. The expectations of an individual can be determined from the combined perceptions of barriers to, benefits of, and self-efficacy in undertaking the recommended health behaviours. The perceived threat experienced by an individual is established by their perceived susceptibility to and severity of a particular condition. These factors all contribute to the likelihood of an individual engaging in behaviour to reduce the threat of an illness based on their expectations (Rosenstock, et al., 1994).

The constructs of the HBM have been rigorously and repeatedly tested over the past five decades (Janz, Champion, & Strecher, 2002). The common sense constructs are easy to apply to a wide-range of health conditions and behaviours, and can predict the likelihood of behaviour to a certain extent (Taylor et al., 2006). However, as the constructs are common sense and broadly defined, the HBM could be seen as an over-simplified representation of health behaviour. The model is one of the most widely researched in the health behaviour field, and has established utility in making testable predictions about specific health behaviours (Taylor, et al., 2006).

# Integrating social marketing and the HBM

The combination of psychological theory and social marketing techniques can lead to innovative and effective campaigns (Gallivan, et al., 2007). Specifically, a recent study argued that the components of the HBM can be integrated into a social marketing campaign to better understand the beliefs and behaviours of the target audience (Andrews & Jones, 2009). This key qualitative study analysed the asthma perceptions of older adults in terms of HBM constructs and the social marketing mix of product, price, place and promotion, providing a foundation for the current research. Older adults perceived that asthma was not very serious and that it would not impact their daily activities. Their perceived susceptibility was low; they believed that asthma was a childhood disease and that any respiratory difficulties they may have would be a normal sign of ageing. Barriers to action centred on their lack of understanding about asthma. There were no clear benefits expressed by the sample regarding seeking diagnosis and treatment. Cues to action for the older adults were media campaigns, and advice from GPs, pharmacists and credible health organisations. In addition, a marketing mix summary highlighted the key role of GPs and pharmacists in terms of place, price, and promoting the product of asthma knowledge.

Figure 1 depicts a conceptual framework illustrating the influence of social marketing on the constructs of the HBM in relation to health promotion to older adults.



*Figure 1.* A conceptual framework for the application of the HBM constructs (Rosenstock, et al., 1994) and social marketing (French & Blair-Stevens, 2007) to asthma and older adults.

The individual asthma perceptions of older adults in relation to their perceived susceptibility to developing asthma and perceived severity of the disease need to be understood and quantified. These perceptions, together with the socio-demographic factors of current health, respiratory symptoms, health-related quality of life, and asthma knowledge, develop into a perceived threat and expectations about the recommended action. Social marketing influences both individual and community perceptions, and subsequent behaviour. The likelihood of older adults in the target group following recommended health behaviours is affected by this perceived threat, and their expectations about the outcomes of following the health advice promoted by the campaign. This conceptual framework will be developed into a model which may be used to understand the likelihood of older adults carrying out the proposed asthma-related action.

# Conclusion

Community-level health promotion interventions can benefit from utilising the social marketing framework in conjunction with the constructs of the HBM. This combination allows health promoters to gain a deep understanding of their target audience's perceptions and beliefs, enabling real behaviour change to occur. Future research should extend the efforts of previous social marketing campaigns

about asthma (Bauman et al., 1993; Comino et al., 1995) to specifically target older adults, a segment of the population that has relatively high levels of mortality, but has received few education interventions. This paper builds upon previous qualitative research that combined psychological theory with a social marketing framework (Andrews & Jones, 2009) to examine the asthma beliefs of older adults. The refinement of the conceptual framework about older adults' asthma perceptions, the effects of a targeted social marketing intervention, and subsequent asthma beliefs and health behaviours will make the real contribution to this field of research.

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