

# **Developing Messages to Create Community Awareness of Hypertension as a Risk Factor for Dementia**

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## **Abstract**

Dementia is the leading single cause of disability in older Australians. Due to the ageing of the population, the number of people living with dementia will increase significantly over the coming decades and there is pressing need for effective prevention strategies. One relatively unknown but modifiable risk factor for dementia is hypertension. 'Healthy Heart Healthy Mind' is a social marketing campaign that aims to create awareness of the link between hypertension and dementia, and encourage improved hypertension management in the target audience in order to prevent dementia. This paper describes the use of behaviour change theory and qualitative research undertaken with the target audience to inform the development of the campaign. Results of this research were important in devising campaign strategies, key messages and creative concepts.

## **Introduction**

Dementia is an umbrella term for a variety of diseases that cause progressive decline in multiple areas such as memory, judgement, communication and ability to carry out daily living (Alzheimer's Australia, 2005; American Psychiatric Association, 1994). The most common forms of dementia are Alzheimer's disease and vascular disease or a mixture of both (Woodward, 2007). In 2009, 245,000 Australians were living with dementia, and by 2050, it is estimated that this will increase to around 1.13 million (Access Economics, 2009).

Within the next decade, in the absence of any substantial policy or health system change, there will be a significant unmet demand for care services and a severe shortage of carers for people with dementia (Access Economics, 2009). This will have enormous consequences for the health care budget and facilities, not to mention the future burden to families and carers as they will be forced to become working carers. While improvements to access and delivery of quality health and social services are required, prevention strategies including risk reduction and early intervention have potential to help redress this situation (Alzheimer's Australia, 2010; Woodward, 2007). Dementia prevention strategies including combining mental stimulation, social engagement and exercise as well as healthy eating and drinking and prevention or treatment of cardiovascular problems can modify the risks of developing dementia (Valenzuela and Sachdev, 2006; Woodward, 2007).

A recent survey undertaken by the Dementia Collaborative Research Centres and Alzheimer's Australia shows that Australians' awareness of preventative strategies for dementia is poor and there has been little behavioural change (Farrow, 2008). Of those Australians that are aware of dementia risk reduction strategies, most are aware of mental activity, healthy diet and physical activity while a relatively low proportion are aware of the role of maintaining healthy blood pressure (Low and Anstey, 2007). Population surveys in Australia estimate that whilst almost 1 in 3 Australian's have high blood pressure, half receive no treatment (Briganti, et al., 2003) and as many as 1 in 3 may be unaware they have high blood pressure

(Janus, et al., 2008). Based on current research evidence, treating hypertension ranks as the number one means of reducing the risk of dementia, with increasing mental activity and physical activity ranking second and third (Valenzuela and Sachdev, 2006; Woodward, 2007).

The purpose of this paper is to describe formative research which explored the knowledge, attitudes and behaviours of 45 to 64 year olds in relation to dementia and hypertension. This research was conducted to inform the development of a social marketing campaign (Grier and Bryant, 2005; Kotler and Lee, 2008). The objective of the research was to support the development and implementation of an evidence based program which aimed to reduce risk factors for dementia and to promote healthy ageing. The resultant 'Healthy Heart Healthy Mind' (HHHM) campaign, funded by NSW Department of Health, is currently being piloted under a partnership arrangement between the Centre for Health Initiatives at the University of Wollongong and the Illawarra-Shoalhaven Local Health District.

## **Method**

Social marketing is defined as "the systematic application of marketing alongside other concepts and techniques, to achieve specific behavioural goals for a social good," (French and Blair-Stevens, 2010, p.35). Social marketing was considered an appropriate approach for the current issue, as a key objective was to improve hypertension management for the target audience in order to reduce their risk of dementia (social good). Social marketing is a consumer oriented approach (Grier and Bryant, 2005; Kotler and Lee, 2008), and requires a thorough, well-researched understanding of the target market, specifically their knowledge, attitudes and behaviours relevant to the behaviour change at hand.

The target audience for the research (and the subsequent campaign) were adults aged 45 and over living in the region. This age group was selected as research has demonstrated that maintaining healthy blood pressure from as young as 45 years will significantly decrease your risk of dementia (Peila, White, Masaki, Petrovitch, and Launer, 2006). An additional component of the program targeted health professionals, other primary care providers and a range of community workers with the objective to raise awareness of the preventative strategies and enable their support; however this paper focuses on the development of campaign messages and educational focus for the community-based intervention.

The research was conducted in two stages. In stage 1, six focus groups explored the knowledge, attitudes and behaviours of the target audience, and in stage 2, an additional two groups pre-tested campaign concepts and messages. In total, eight focus groups were conducted with 42 adults aged between 45 and 64 years. In stage 1, discussion guides utilised the Health Belief Model (Janz, Champion, and Strecher, 2002) to explore the likelihood of changing health related behaviours. The Health Belief Model (HBM) posits that if an individual has 1) the desire to avoid a condition (value) and 2) the belief that a specific health action would prevent that condition (expectation), they are more likely to result in personal action. In this way it is said to be based on a value-expectancy framework. Beliefs of personal susceptibility (perceptions of personal risk of contracting a health problem) and severity of a condition (perceptions of the seriousness of the health problem) are taken into account, as are beliefs of efficacy (beliefs that they have the capacity to engage in the desired behaviour) and cues to action (influences or strategies that remind or prompt them to adopt the desired behaviour) (Janz, et al., 2002). Transcripts were also thematically analysed utilising the HBM to gain an understanding of the target audience awareness and behaviours in relation to hypertension management and dementia.

In stage 2, results from Stage 1 were utilised to develop creative concepts including campaign images and possible campaign messages. These were pre-tested in two final focus groups with members of the target audience. The groups tested a number of different messages and creative concepts for the proposed promotional materials to ensure acceptability and saliency of the messages for the target audience.

## Results

### Hypertension

Participants in the focus groups perceived hypertension to be a condition associated with age, lifestyle factors and other health conditions (susceptibility). They were aware of a range of lifestyle factors to reduce hypertension including a healthy diet, exercise, limiting alcohol consumption, stopping smoking and limiting salt intake, however some participants perceived that these factors were not always effective in preventing or managing hypertension. For example:

*“My husband’s really fit but he still has to take medication for high blood pressure” (Focus Group 6).*

Most participants were aware of the lack of symptoms of hypertension.

*“It’s a very silent thing, blood pressure, you could have it and you don’t know; silent killer; you may have it and you don’t know” (Focus Group 6).*

Whilst participants identified several health conditions associated with hypertension they did not tend to perceive the condition as particularly severe:

*“High blood pressure seems to have effects on your health in many ways” (Focus Group 2).*

Participants were also aware of hypertension screening, and while they perceived the associated procedure as simple and painless, several perceived barriers including lack of time, or importance of screening to warrant a visit to their GP:

*“I mean I’m healthy so I only go to the doctor when I’m sick. I never go just to check my blood pressure; how many people, unless you’re ill ... go to the doctor?” (Focus Group 6).*

Perceived susceptibility was also influenced by a lack of awareness about personal risk, when, and how often, they should be getting their blood pressure checked, and difficulties understanding blood pressure guidelines. For example:

*“How often should I be getting my blood pressure checked?; ...what numbers mean high blood pressure?... I’m not sure if I’m that group or not because I’m not really sure whether I know what high blood pressure numbers are” (Focus Group 1).*

### Dementia

Respondents identified age as one of the main factors linked to susceptibility of developing dementia, however there was a lack of awareness regarding other risk factors. For example:

*“The root cause of dementia to me is an unknown; I don’t know what causes dementia; what driving forces are behind it I’ve got no idea; it’s just a big can of worms” (Focus Group 4).*

In contrast to hypertension, a high level of fear was displayed by participants in relation to developing or being diagnosed with dementia (severity) and they were able to identify some of the major impacts that developing dementia can have including the impact on quality of life, and the impact on an individuals’ social functionality as well as burden on the family. For example:

*“...hope...that you pass before your brain gets to that point because it’s also about quality of life; no quality of life; towards the end and the person can’t even remember, doesn’t even know how to breathe or feed” (Focus Group 4).*

Participants identified a range of lifestyle changes and strategies for prevention of dementia, however few participants identified hypertension management. The most commonly identified protective factors were keeping the brain active and social engagement. For example:

*“Just keeping your mind as alert as possible; the brain being a muscle, yet if you stretch it and exercise it and look after it that it will look after itself” (Focus Group 8).*

However there was some fatalism regarding developing dementia, and a lack of perceived efficacy of strategies such as mental stimulation in preventing dementia. For example:

*“When you see people who’ve developed Alzheimer’s or dementia, they’ve been really high powered people... they’re academics or whatever else, their whole life’s focused on remaining mentally active and yet they’ve developed dementia; Just to make it harder, it’s random; there are people that no matter what they do... it’ll happen” (Focus Group 5).*

### **Hypertension dementia link**

For participants, perceived susceptibility for both hypertension and dementia appeared low, and while perceived severity was high for dementia, it was less so for hypertension. Indeed barriers identified around hypertension screening were in part attributed to its lack of importance (or lack of severity). Whilst participants were aware that leading a healthy lifestyle may decrease susceptibility to both hypertension and dementia, several participants perceived that these strategies were not efficacious. Based on these results, the health belief model would predict that the likelihood of participants engaging in preventative behaviours such as hypertension screening and lifestyle measures would be low. However, the link between hypertension and dementia provides an important opportunity to heighten the perceived severity of hypertension, increase the importance of screening, and increase the likelihood of preventative behaviours for people in this age group. Participants in the focus groups were generally surprised when advised of the link between hypertension and dementia, and believed this was important information for the general community to motivate them towards hypertension screening and management. For example:

*“If people are educated and get enough information they mightn’t be fearful if they know there’s some form or some way of preventing it (dementia) and whether medication is the panacea or lifestyle, or exercise, like so many other things that can make a difference to our health, mental and physical; if you can reduce your blood pressure it might be better for you when you get older...I think that’s information people should have” (Focus Group 6).*

### **Message and Creative Concepts**

Results from pretesting campaign creative concepts with the focus groups found that participants preferred images that they could identify with and directed to the younger age spectrum of the target audience. For example:

*“the man makes it more personal...you can identify with a person, but the person needs to be younger...”(Focus Group 6).*

Participants felt the creative concept should focus on the most important action (getting blood pressure measured) and demonstrate the ease of performing that action. For example:

*“need to show that action is achievable...that they aren’t in this alone and that it doesn’t take too much effort to make a change” (Focus Group 1).*

Participants tended to agree that the message needed to shock and engage to encourage immediate action, but also provide explicit information on how to take action. For example:

*“need to scare, engage, and provide way to alleviate fear and tell how to take action”  
(Focus Group 1).*

As a result of this formative research and pre-testing of concepts and messages, the ‘Healthy Heart, Healthy Mind’ campaign was conceived. Final creative executions had a positive but sombre tone and pictured a man or a woman at the younger end of the target age group having their blood pressure checked by a doctor or nurse in a non-clinical setting. The key campaign message addressed the knowledge gap by informing of the connection between heart health, brain health and dementia: *‘High blood pressure is a risk factor for dementia’*. The secondary message, *‘Keep your blood pressure in check’* emphasised the need for the target audience to check their blood pressure, and to manage it through a range of strategies:

- Visit your doctor, have your blood pressure checked regularly and follow treatment advice
- Be smoke free (for information on quitting, call the Quitline 13 QUIT)
- Reduce your salt intake (to less than 1 tsp per day)
- Keep a healthy body weight
- Be physically active (30 mins per day of moderate activity like walking or cycling)
- Limit your alcohol (< 2 standard drinks per day).

### **Discussion**

While the key message could be considered to be a fear or threat appeal (Kotler and Lee, 2008), the secondary messages provided a solution of how to moderate that threat. Importantly, all materials included the logos of the campaign funder and partner organisations to improve source credibility, which is important for threat appeals (Kotler and Lee, 2008). As part of the campaign, a range of branded promotional materials were produced including road banners, posters, postcards, information brochures and a website. These were developed to support secondary messages with cues to action on how to help control hypertension. In relation to hypertension screening several participants perceived barriers in visiting their GP due to lack of time, lack of availability of services, or the lack of importance of screening to warrant a visit. As such, increasing the accessibility and the perceived importance of hypertension screening and management became a key part of the campaign. As well as increasing the importance of screening and providing cues to action via the campaign messages, blood pressure checking stations were made available in community venues such as shopping centres and libraries. Another barrier identified by participants was that they did not know when, and how often, they should be getting their blood pressure checked, and difficulty in understanding blood pressure guidelines. Clear and digestible information was made available to the general public to redress these knowledge barriers via campaign material including brochures and the website, educational seminars held at community venues, and via staff providing blood pressure checks and referrals.

### **Conclusion**

‘Healthy Heart Healthy Mind’ is currently being implemented, and as such, its effectiveness in achieving behaviour change is still to be determined. However this paper illustrates that the conduct of qualitative formative research with the target market, and the use of behaviour change theory are fundamental to identify knowledge gaps, barriers and motivations. For the current campaign, this research was important in informing campaign creative concepts, messages and strategies to help motivate the target audience to overcome barriers, and encourage them to reduce their risk of dementia through hypertension management.

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