

# The effectiveness of youth audience participation at dance performances to promote the “Be Active” physical activity message.

## CHRISTINA MILLS

PhD Candidate  
School of Population Health  
and School of Sport Science,  
Exercise and Health  
THE UNIVERSITY OF WESTERN AUSTRALIA.

35 Stirling Hwy, Crawley, WA 6009  
cmills@graduate.uwa.edu.au  
christina.mills@westnet.com.au  
(p) (+61) 404 159 241

## MICHAEL ROSENBERG

Associate Professor  
THE UNIVERSITY OF WESTERN AUSTRALIA

## LINDSAY LOVERING

Arts Program Manager  
HEALTHWAY

## LISA WOOD

Associate Professor  
THE UNIVERSITY OF WESTERN AUSTRALIA

## RENEE FERGUSON

Research Associate  
THE UNIVERSITY OF WESTERN AUSTRALIA

## KEYWORDS

Dance; health message; performing arts; physical activity; sponsorship; young people.

## ABSTRACT

*Given the growing level of physical inactivity and obesity among young people, it is important to find creative and engaging ways to promote health to this group. Healthway sponsors dance organisations to promote the “Be Active” physical activity message. The purpose of this study was to evaluate the cognitive impact (i.e., message awareness, comprehension, acceptance, intention and action) of the Be Active message at sponsored dance performances participated in by young people as part of an audience.*

*From 2002 to 2008, surveys were conducted with participants aged 10 to 17 years (n=470). A descriptive analysis was conducted. Overall, 50 per cent of participants were aware of the Be Active message promoted at a performance. Of those aware of the message, their comprehension, acceptance and intention to act on the message were high. Study findings suggest that movement based performing arts, such as dancing, have merit beyond inherent artistic value and can be utilised as a setting to promote physical activity to young people. Further research should be conducted to see if this is true for other art forms and health messages.*

## BACKGROUND

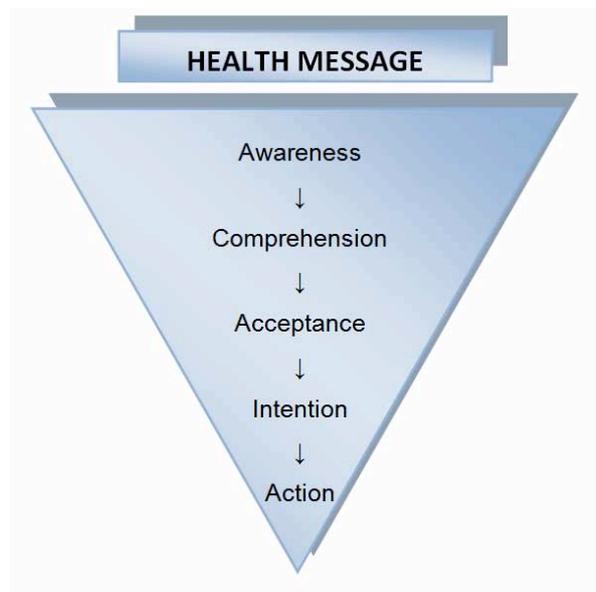
Dance is a popular recreational activity for young people and can contribute to the physical health and wellness of an individual (Fensham and Gardner, 2005, Hanna, 1995). As there is growing concern over the effects of sedentary lifestyles on the health of young people (Biddle et al., 2004), physical activity via behaviours such as dancing should be encouraged. Engaging in physical activity can have a positive effect on body weight as well as social and mental health (World Health Organisation, 2010, Marsh et al., 2010), whereas physical inactivity in youth, can result in chronic disease in later life (National Center for Chronic Disease Prevention and Health Promotion - Division of Adolescent and School Health, 2010). According to the World Health Organisation, it is recommended that young people accumulate at least sixty minutes of moderate to vigorous-intensity physical activity each day (World Health Organisation, 2010). In the state of Western Australia, less than half of all school aged youth participate in recommended levels of physical activity (Martin et al., 2009). While physical activity is promoted to students as part of their school curriculum, health promoters are increasingly looking for innovative ways to promote health to young people. The Western Australian Health Promotion Foundation (Healthway) sponsors arts organisations in exchange for the provision of healthy environments (e.g., venues free of cigarette smoke) and the promotion of health messages (e.g., Be Active) that are linked to community health promotion campaigns. This approach is relatively unique to Western Australia and is a model that could be used elsewhere to promote health to young people.

Healthway matches specific health messages, (e.g., Be Active) to related sponsored activities (e.g., dance performances). As shown in Figure 1, methods used to promote health messages include the use of signage (e.g. stage signage, posters, and banners), merchandise (e.g. stickers, hats, water-bottles) and announcements.



*Figure 1: The “Be Active” message as promoted by West Australian Ballet*

The development, implementation and evaluation of Healthway’s sponsorship program is underpinned by both social marketing and communication-behaviour change models (Nutbeam and Harris, 1999, McGuire, 1984). As shown in Figure 2, by promoting health messages at arts events, the aim of the arts sponsorship program is to influence the health awareness, comprehension, acceptance, intention and the behavioural actions of young people.



*Figure 2: Cognitive impact hierarchy of a health message*

The Arts, in terms of events and venues, are a creative setting for the conveyance of health messages and strategies to promote health. From 2002 to 2008, ninety-six metropolitan and regional arts organisations were sponsored by Healthway to promote the Be Active physical activity health message. These sponsorships represented both recurrent events, such as school workshops, and one-off main house theatre performances. Previous research suggests that sponsorship of sports events is an effective setting for communicating health messages to young people (Corti et al., 1997), but this has not yet been investigated in relation to the arts. The aim of this study was to evaluate the self-reported cognitive impact of the Be Active message at sponsored dance events participated in by young people by assessing the cognitive hierarchy of audience message awareness, comprehension, acceptance, intention and action

## **METHOD**

Between July 2002 and December 2008 surveys were conducted at three ballet (n=124 participants) and four modern dance performances (n=346 participants) as part of the evaluation of Healthway's arts sponsorship program. All performances occurred in metropolitan theatres and promoted the Be Active message. Each event ran for approximately one hour with no intermission. The performances targeted young people aged ten to seventeen years. Participants attended events during school excursions and all students (i.e., 100 per cent response rate) completed a previously established (Holman et al., 1996), age appropriate, self-administered survey at the end of the performance. The survey asked cognitive impact and demographic questions. Specifically, participants were asked whether they recalled seeing or hearing any health messages at the performance (awareness). Respondents who were aware of the Be Active message were asked what they understood the message to mean (comprehension) and if they agreed with the message (acceptance). Respondents were then asked if the Be Active message, at this or a previous arts event, had caused them to think about doing something related to the message (intention) and if they had actually undertaken a behavioural action as a result of the message (action). Actions and intentions included any personal action or intention

related to the Be Active message and actions or intentions related to encouraging other people to adopt or continue a physically active behaviour. The data were analysed using SPSS for Windows Version 17. The analysis involved a descriptive investigation of the cognitive impact measures. Permission to conduct this study was granted by The University of Western Australia Human Research Ethics Committee.

## RESULTS

In total, 470 students participated in this study. The majority of participants were female (83 per cent), with 38 per cent aged between 10 and 12 years and 62 per cent aged between 13 and 17 years.

Overall, 50 per cent of participants were aware of the Be Active physical activity message promoted at the dance performance they attended. Of those aware of the message, most heard the message being promoted by a performer or event organiser (88 per cent) or saw the message on the event programme (58 per cent) or on signage (52 per cent). As shown in Table 1, of those who were aware of the message, comprehension (76 per cent) and acceptance (95 per cent) of the Be Active message were high. As a result of exposure to the message, at this or a previous arts event, 66 per cent of those who accepted the message had an intention to act on the message, while 49 per cent reported actually undertaking a behavioural action e.g. 'dancing', 'doing more exercise', 'walking more'.

	%
<b>Awareness</b> (% of those surveyed)	50
<b>Comprehension</b> (% of those aware)	76
<b>Acceptance</b> (% of those who comprehended)	95
<b>Intention</b> (% of those who accepted)	66
<b>Action</b> (% of those with intention)	49
<b>Total Action</b> (% of respondents surveyed)	12

*Table 1: The cognitive impact of the Be Active message as a percentage of each preceding level in the hierarchy (n=470)*

Multiplying the cognitive impact proportions down the hierarchy provides an estimate of the percentage of respondents surveyed who were sufficiently stimulated to undertake some relevant action as a result of exposure to the health message

*i.e. 50% awareness x 76% comprehension x 95% acceptance x 66% intention x 49% action = total estimated action.*

Applying this approach to those surveyed, it was estimated that (in total) behavioural action were undertaken by 12% of respondents.

## DISCUSSION

Increases in juvenile obesity have received a great deal of attention in the scientific and popular press and have been attributed partly to television viewing, computer games and other sedentary behaviours which are thought to compete with physical activity (Biddle et al., 2004). Given the growing levels of physical inactivity and obesity among young people, it is important for health promoters to find novel and effective ways to promote health to this target group. Also, while health sponsorship has increased in popularity as a strategy to promote health, published research demonstrating its effectiveness is relatively sparse. Healthway sponsors arts organisations in exchange for the provision of healthy environments and the promotion of health messages. Given that sponsorship can achieve high levels of exposure to a promoted message (Okter, 1988, Sandler and Shani, 1989), and the association between health message exposure and awareness at sports events is apparent in the literature (Corti et al., 1997, Jalleh et al., 2002), the aim of this study was to evaluate the cognitive impact of the physical activity message, Be Active, at sponsored dance events participated in by young people.

In this study half of all participants who took part in a sponsored dance performance, as part of an audience, were aware of the Be Active physical activity message. This level of awareness and predicted action was similar to that observed in unpublished Healthway sponsorship program evaluations of physical activity messages promoted to both adults and young people, i.e., awareness between 50-65% (French et al., 2005, Mills et al., 2007). As a result of exposure to the Be Active message (at this or a previous arts event), most respondents who were aware of the message, comprehended, accepted and formed an intention regarding the message, while some reported actually undertaking a behavioural action. This is encouraging and suggests that movement based performing arts events can be used as a communication channel to promote physical activity to young people.

Individuals can contribute to their own wellbeing through the adoption of positive health behaviours and the avoidance of negative health behaviours. The results of this study suggest that health message awareness can influence whether or not a person adopts health enhancing behaviours. Strength of this study was the high response rate, while a limitation was that self-reported intentions and behavioural actions could not be verified. Evaluation using a cognitive impact model demonstrates that health sponsorship of performing arts events is a valuable strategy for achieving awareness, comprehension and acceptance of a physical activity message. It also suggests that health sponsorship of performing arts events can precipitate self-reported behaviour change. Findings from this study suggest that movement based performing arts have merit beyond inherent artistic value and support the use of performing arts sponsorships as a means of promoting and reinforcing physical activity messages to young people. Further research should be conducted to see if this is true for other art forms and health messages.

**ACKNOWLEDGEMENTS**

This research was supported by the Western Australian Health Promotion Foundation (Healthway).

**ABOUT THE AUTHOR**

*Christina Mills is a PhD candidate at The University of Western Australia. She is completing a PhD in the Arts and Health and has extensive experience in the area of health research and evaluation. Christina is also a practicing artist and has qualifications in the visual arts, psychology and public health.*

## REFERENCES

- BIDDLE, S., GORELY, T., MARSHALL, S., MURDEY, I. & CAMERON, N. 2004. Physical activity and sedentary behaviours in youth: issues and controversies. *Perspectives in Public Health*, 124, 29-33.
- CORTI, B., DONOVAN, R., HOLMAN, C., COTEN, N. & JONES, S. 1997. Using sponsorship to promote health messages to children. *Health Education and Behaviour*, 24, 276-286.
- FENSHAM, R. & GARDNER, S. 2005. Dance classes, youth cultures and public health. *Youth Studies Australia*, 24, 14-20.
- FRENCH, S., ROSENBERG, M. & WOOD, L. 2005. Sponsorship Monitor Evaluation Results 2004/2005. Perth: Health Promotion Evaluation Unit, School of Population Health, The University of Western Australia.
- HANNA, J. 1995. The power of dance: health and healing. *The journal of alternative and complementary medicine*, 1, 323-331.
- HOLMAN, C., DONOVAN, R. J., CORTI, B., JALLEH, G., FRIZZELL, S. K. & CARROLL, A. M. 1996. Evaluating projects funded by the Western Australian Health Promotion Foundation: first results. *Health promotion international*, 11, 75.
- JALLEH, G., DONOVAN, R., GILES-CORTI, B. & HOLMAN, C. 2002. Sponsorship: Impact on Brand Awareness and Brand Attitudes. *Social Marketing Quarterly*, 8, 35 - 45.
- MARSH, K., MACKAY, S., MORTON, D., PARRY, W., BERTRANOU, E., LEWSIE, J., SARMAH, R. & DOLAN, P. 2010. Understanding the value of engagement in culture and sport. London: Matrix Knowledge Group.
- MARTIN, K., ROSENBERG, M., MILLER, M., FRENCH, S., MCCORMACK, G., BULL, F. C. L., GILES-CORTI, B. & PRATT, S. 2009. Child and Adolescent Physical Activity and Nutrition Survey 2008: Key Findings. Perth, Western Australia: Physical Activity Taskforce.
- MCGUIRE, W. J. 1984. Public communication as a strategy for inducing health-promoting behavioural change. *Preventive Medicine*, 13, 299-319.
- MILLS, C., ROSENBERG, M., MITCHELL, J. & WOOD, L. 2007. Sponsorship Monitor Evaluation Results 2006/7. Perth, Western Australia: Health Promotion Evaluation Unit, The University of Western Australia.
- NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION - DIVISION OF ADOLESCENT AND SCHOOL HEALTH. 2010. Healthy Youth [Online]. Available: <http://www.cdc.gov/HealthyYouth/AdolescentHealth/index.htm> [Accessed July 2010].
- NUTBEAM, D. & HARRIS, E. 1999. *Theory in a Nutshell: A Guide to Health Promotion Theory*, Sydney, McGraw-Hill
- OKTER, T. 1988. Exploitation: the key to sponsorship success. *European Research*, 16, 77-86.

SANDLER, D. & SHANI, D. 1989. Olympic sponsorship vs. ambush marketing: who gets the gold? *Journal of Advertising Research*, 29, 9-14.

WORLD HEALTH ORGANISATION. 2010. Global Strategy on Diet, Physical Activity and Health [Online]. World Health Organisation Available: <http://www.who.int/dietphysicalactivity/pa/en/index.html> [Accessed June 2010].