Evaluation of the Effectiveness of Social Marketing Approach in Smoking Cessation and Promoting Health in Australian University Students

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¹ Dr Jing Sun’s primary research interests are in biostatistics and social epidemiology, with a particular focus on the health promotion and mental health as determinants of health. Her research is mainly population-based, examining how individual, structural, social, and ecological factors (measured at the individual, group, and area levels) influence health (mortality and morbidity of cardiovascular diseases, cancer, and obesity) and health-related behaviours (eg., smoking, alcohol consumption, substance use, and sedentary behaviours). Her work is increasingly focusing on ways to reduce health inequalities through health policy, health promotion, and other intervention strategies using setting based approach with strong support of her population based biostatical and epidemiological skills. Dr Sun’s expertise includes the following areas: (i) relationship between resilience and mental health in primary school aged children to aging population (ii). Work place, employee mental health and work performance; (iii) Statistical modelling development on the relationship between climate change, air quality and cardiovascular disease; (iv). Using setting based approach to reduce the prevalence of smoking behaviour in youth; (v). Using public health approach to resolve social conflicts in modern economic development in China; (vi). Motivation, behaviours, capabilities, resilience and work performance in entrepreneurs.
Introduction

Reduction or cessation of tobacco use among university students is an exigent public health priority. Nearly 19% of university student smoke and incidence rates have increased in the past decade (AIHW, 2007). Tobacco use is the leading preventable cause of death in Australia and internationally (Collins and Lapsley, 2008; Wakefield, Freeman and Inglis, 2004); mortality is higher for cigarette smoking than for death cause by illicit drug use, automobile crashes, homicides, suicides and AIDS combined (AIHW, 2007; Siahpush, English and Powles, 2006).

Because smoking habits may be relatively less entrenched in younger smokers, behaviour change in a university age population may be easier to effect (Pier et al., 1991). Student smokers may be disposed to quit smoking, as students are generally aware of the major health risk associated with smoking. In addition, 50% of university smokers have made previous quit attempts (American Cancer Society, 1991). The health promotion activities in smoking prevention programs from those that focus primarily on individuals and small groups using traditional methods have achieved limited success given the low penetration of the individual or group methods in many segments of the population including women, minority, and international student segments, and the limited resources that are usually available and the lack of appropriate techniques.

Program that targets whole communities, segments of society, or entire populations has brought with it that realisation that social marketing methods may be as applicable or effective in these larger contexts to prevent and quit smoking and promote health in university students. Social marketing principles are relevant to the task of translating necessarily complex educational messages and behaviour change techniques into concepts and products that will be received and acted upon by a large segment of the population.

This research project aimed to evaluate the effectiveness of social marketing approach in reducing incidence of smoking, knowledge and attitude changes in the university population, and behaviour change in smokers. The exchange theory of social marking was used as the theoretical underpinning of the study (Kotler, 1975). According to exchange theory, individuals, groups or organisations have resources that they want to exchange for perceived benefits. The critical components of the social marking approach in this study lies in marketing orientation towards benefitting consumers (smokers/potential smokers/non smokers) through the utilisation of health promotion techniques (health promotion idea dissemination, health promotion events and activities, health service provision) that facilitate voluntary exchanges between the consumer and the health promotion producer.

Methods

A prospective intervention method was used for the project. An urban major university across five campuses in Brisbane to Gold Coast corridor was invited to participate in the study. Within the university, one campus was chosen as an intervention community, and two other campuses which were not exposed to the campaign were used as comparison communities. There were 18,000 students and staff in total were invited to participate in both pre intervention and post-intervention online survey. Random prize draws with 10 prizes of $75 Woolworth Vouchers were offered as an incentive and one reminder was emailed one month after the initial emailing date in August 2009 through broadcasting email by Deputy Vice Chancellor in the University. The survey comprised the following sections, namely attitude and knowledge in health effect of smoking, cognitive appraisal of health message in smoking, and demographic information. The project has been approved by the university ethics committee.

There were 4062 students and staff responded to the pre intervention survey representing 22% of the response rate, 2332 participants responded to the post-intervention survey in November 2009. The setting-based approach as a context for implementing social marketing programs has been used to:
• gain community insight into smoking problems and their support for proposed solution.
• ensure the use of knowledge in relation to the smoking effect on health
• employ community communication channels including media, emails, website, and health promotion events.
• localise distribution of education materials and services and improving access and opportunities to engage in health behaviours, such as exercise and education program.
• helping build sustainable solutions by changing physical environment and social norms.

Results and Discussion
The key research finding of this project is that there was 6.4% smoking incidence reduction over two months of the intervention program, and over 50%-60% of people noticed, read, thought, and discussed the health messages on smoking using the social marketing campaign through idea dissemination by email, website, common computer lab, banner, public signs, and health information event; participants attending quit education session, and service delivery such as exercise programs and education sessions. The benefit of the social marketing approach to the participants has also been demonstrated in the changes of the perceptions of respondents regarding knowledge of health effect of smoking in the community, community attitude toward smoking, creation of a healthy work and study environment, and smokers’ behaviour change. For instance, the intervention program has significantly changed communities’ attitude and knowledge with over 80% of people thought smoking is harmful to health and over 75% of people took disapproval attitude towards smoking. Seventy-seven percent of smokers complied with the new smoke free campus policy and used the nominated smoking areas when they wanted to smoke, 60% of respondents agreed that intervention program has created a healthy physical environment, work and study environment, and 17% of smokers indicated that the intervention had helped them to quit or cut down smoking. Only 18% people in the intervention group in post intervention phase indicated they would probably smoke in the future with an 8% reduction in quitting smoking or cut down smoking. The significant differences between intervention and control campuses in the areas described above suggest that the intervention using social marketing approach was effective in reducing smoking incidence and prevention of smoking in university context, this program has reached the large population segment including those “Hard to Reach” groups such as women group, international student group, student who enrolled in off-campus mode study, and has significant effect on changing the whole community social norm in smoking.

Conclusions and Public Policy Implications
The results of this research show that an intervention program using social marking approach is effective in reducing the smoking incidence in university students within the university context, preventing the potential smoking uptake, and helping smokers to quit and cut down the number of cigarettes. The finding regarding advertising campaign, delivering messages in health effect of smoking, information event held in a teaching week are consistent with predicting these changes in smoking prevalence. The premises underlying the analysis of the findings from this study suggest that non-smokers and smokers benefit from the health beliefs and attitudes changes. Evidence from the Smoke-Less Campaign identifies characteristics of an effective health promotion program for tobacco control. Such a program should use a combination of messages on prevention, cessation and protection from second-hand smoke, target the subpopulation segments including students and staff members and visitors, and include community promotion and media advocacy. The results of this study suggest that the single most inexpensive action a university can take to reduce smoking is to focus on the resource exchange that is inherent in idea dissemination, health promotion activity, and health service and seek to maximise the benefits to consumers and producers.
References


