

“SMARTER THAN SMOKING” – EVALUATION OF A CAMPAIGN TO REDUCE TEENAGE SMOKING IN WESTERN AUSTRALIA

Clarkson JP, Donovan RJ, Jamrozik¹, K, Sydney-Smith² K, and Frizzell S³

Health Promotion Evaluation Unit, Department of Public Health and Graduate School of Management, The University of Western Australia

¹ Department of Public Health, The University of Western Australia

²The Smarter than Smoking Project, National Heart Foundation

³Healthway, The Western Australian Health Promotion Foundation

Postal Address: Dept of Public Health, UWA Nedlands Campus, Nedlands WA 6907 Australia

Summary

The Western Australian Health Promotion Foundation (Healthway) was established in 1991 through legislation that aimed to replace tobacco advertising and sponsorship in WA. Healthway provides sponsorship for sports, arts and racing activities that encourage a healthy lifestyle and supports health promotion projects and research.

The Smarter than Smoking project is the largest project funded by Healthway and aims to discourage young people from becoming regular smokers. While smoking rates among adults in WA have declined in recent decades, smoking among young people has increased in some age groups.

Smarter than Smoking is a coalition between the major health agencies in WA working in smoking control: the Health Department, the Australian Council on Smoking and Health, and the Heart, Asthma and Cancer Foundations. The project is a community-wide intervention including mass media, school resources, advocacy, shop promotions and sponsorship of events for young people. Three separate waves of media advertising were conducted between October 1996 and June 1998.

The large scale of the project presents a particular challenge in terms of evaluation. This paper describes a study that measured campaign awareness, attitudes to smoking, intentions and behaviour among more than 7,000 young people. The campaign achieved over 90% awareness among the target group and after the third wave of advertising, more than 60% of young people thought that the advertisements were relevant to people of their own age.

After the third wave of advertising, higher percentages of young people reported that they had never smoked, and lower percentages had smoked in the previous month, compared with baseline. Furthermore, higher percentages of young people who did smoke were negatively disposed to smoking in the future and reported negative attitudes to smoking.

Introduction

In Western Australia the prevalence of smoking among adults has declined from 36% in 1974 to 23% in 1995 (Unwin 1996). These changes have been attributed to a combination of public education, taxation, environmental restrictions and major advertising controls. Despite these encouraging changes in adult smoking, there is evidence that smoking is increasing among young people. The fifth triennial survey on smoking and alcohol consumption in West Australian secondary school students showed that in 1996, 26% of males and 28% of females aged 17 years had smoked cigarettes at least once in the previous week (Health Department of WA and Anti-Cancer Council of Victoria 1997). From 1993 to 1996, smoking rates did not change among 12 to 15 year-olds and actually increased among 16 and 17 year-olds (Health Department of WA and Anti-Cancer Council of Victoria 1997).

In light of the increasing prevalence of teenage smoking, in 1995 the Western Australian Health Promotion Foundation funded a major intervention project in the State, the Smarter than Smoking Project, that set out to reduce smoking among young people. The project incorporated a media campaign as a major component of a comprehensive multi-strategy intervention.

The increasing prevalence of teenage smoking provided an opportunity to investigate whether an innovative, generously funded (Au\$1 million over three years), relatively intense campaign directed at young people could make an impact on teenage smoking in Western Australia. This paper describes the evaluation of the media strategy adopted by the Smarter than Smoking Project, and presents the results after three years.

The Smarter Than Smoking Project

The Smarter than Smoking project (STS) is the largest single project funded by the Western Australian Health Promotion Foundation (Healthway). The project is aimed at young people aged 10-14 years, the age range in which young people are most likely to be initiated into smoking (Stead, Hastings and Tudor-Smith 1996). STS is co-ordinated by a coalition of five major health agencies in WA working in smoking control: the State Health Department, the Australian Council on Smoking and Health, and the Heart, Asthma and Cancer Foundations.

The intervention developed by the project included a mass media campaign, school resources, advocacy, shop promotions and sponsorship of sports and arts events aimed at young people (Holman, Donovan, Corti, Jalleh, Frizzell and Carroll 1997), all branded with the message "Smarter than Smoking".

The mass media strategy was based on extensive qualitative research with young people and is described in detail elsewhere (Clarkson, Donovan, Jamrozik, Sydney-Smith and Frizzell 1999). The campaign aimed to make the short-term effects of smoking more personally relevant to young people, as these effects are critical in the pre-trial stages and need to be reinforced for those trying cigarettes. The campaign also attacked the social desirability of smoking by countering the idea that 'cool' people smoke, and aimed to demonstrate that other social options exist as alternatives to smoking (Clarkson et al 1999).

The first advertising concept depicted 'real-life' situations in which teenagers talked about four immediate negative effects of smoking, namely discolouration of the skin, rejection by the opposite sex, reduced fitness for sport, and the monetary costs. This approach emphasised personal relevance whilst also attacking the social desirability of smoking. The second concept also

attacked social desirability and used a futuristic execution in the form of an animated talking cigarette. It emphasised the concept of being sucked into smoking, and being fooled into thinking that smoking is 'cool' by tobacco placement in movies. This concept was developed into three related television advertisements featuring the 'talking cigarette'. Each advertising concept was field tested with more than one hundred young people, using the methods of Rossiter and Donovan (1983) and Rossiter and Percy (1997).

Three waves of media advertising were conducted between October 1996 and June 1998, involving mainly television, but with some supporting radio and cinema advertising. The first wave of television advertising featured the first concept, depicting 'real-life' situations, wave two featured the second advertising concept with the talking cigarette advertisements, and the third wave consisted of a combination of both concepts.

Methods

Four independent cross sectional surveys were undertaken in metropolitan secondary schools to measure young people's exposure to the media campaign. The baseline survey was implemented before the campaign was launched, followed by three surveys immediately after each wave of media scheduling. Independent random samples of schools were selected for each survey, and the samples were representative of public and private schools and different social class backgrounds. Between seven and eleven schools agreed to participate in each survey (total = 37 schools), with sample sizes of between 950 and 3,000 young people per survey.

In each school, up to two classes were selected randomly from each of year groups 8, 9 and 10. Self-completion questionnaires were administered to the entire class and completed during a lesson period. The questionnaire measured awareness of the campaign, reactions to the advertising and attitudes, intentions and behaviour related to smoking. Differences between surveys were analysed using Chi Square tests. All significant results in the following section achieved p values between 0.01 and 0.05.

Results

The four surveys yielded questionnaires from 1572, 2788, 2944 and 950 young people aged 12 – 16 years, and there were no refusals to participate. Fewer than 2% of questionnaires were returned incomplete or non-useable.

Awareness of the campaign

When prompted with four stills from the advertisements, more than 90% of young people reported seeing the television advertisements at least once. As the majority had seen them more than five times after the first and second wave of media, this question was omitted from the final survey. Prompted awareness of the logo (Smoking – We're Smarter Than That) increased from 75% after the first wave of media to over 90% after the second and third waves.

Reaction to the campaign

Comprehension: Young people's understanding of the campaign was measured by asking, "Before today did you know that this was a smoking advertisement, or did you not know what it was about?". After each wave of media, more than 90% of young people were aware that the advertising was about smoking.

Relevance: The relevance of the campaign message to the target group was measured by asking those who had seen the advertisement, "How well do you think the makers of this advertisement understand people of your age?" For the first concept, the percentages of young people responding that the makers of the advertisement understand them 'very well' and 'quite well' increased from 65% the first time the advertisement was shown to 74% after the third wave of advertising. The percentage responding 'very well' increased significantly from 23% after wave 1 to 34% after wave 3 ($p < 0.05$).

Compared with concept 1, lower percentages of teenagers (50%) responded that the people who developed advertising concept 2 understood them either 'quite well' or 'very well'. This may have been related to the more unusual execution of concept 2. Nevertheless, the perceived relevance of this advertisement increased after the third wave of media activity to 61%, and the proportion answering 'quite well' increased significantly, from 31% to 39% ($p < 0.05$).

Discussion of the advertising campaign: For the first advertising concept, there was a statistically significant increase between the first and third waves of advertising (from 19% to 23%, $p < 0.05$), in the percentage of young people reporting that they discussed the first advertisement with friends. However, the second advertising concept was discussed significantly less among friends after the second screening than after the first (from 33% to 28%, $p < 0.05$), possibly because its novelty had worn off.

Discussion of the campaign with teachers increased significantly for both advertisements after they were screened a second time ($p < 0.05$). For the first concept, discussion with teachers increased from 9% to 21% and the corresponding figures for the second concept were 18% and 27%.

Intentions and behaviour related to smoking

Disposition towards smoking: The majority of young people, approximately 80% in each survey, responded that they do not want to end up a smoker in the future. Among current smokers, this proportion increased significantly from 34% at baseline to 44% after wave III ($p < 0.05$).

Current smoking behaviour: Table 1 shows the smoking behaviour reported by 13, 14 and 15 year-olds in each survey. The proportion of young people in each age group reporting that they have never smoked in their life increased between the baseline survey and the final post-campaign survey. The increase from 33% to 42% among 14-year olds is both statistically significant and important ($p < 0.05$), but the same trends were apparent in their younger and older peers. The proportion of young people reporting to have ever smoked more than 10 cigarettes decreased from baseline to the last survey in all three age groups, although the changes were not statistically significant (Table 1).

[Table 1 here]

The percentages of young people reporting that they had smoked in the previous four weeks decreased significantly between the baseline and final surveys, from 28% to 22% among 14 year-olds and from 43% to 26% among 15 year-olds ($p < 0.05$).

Attitudes towards smoking

Young peoples' attitudes towards smoking were measured using paired statements. Respondents were asked to indicate which of the two statements they most agreed with, for example: "*Smoking cigarettes gives you bad skin*" versus "*Smoking is not bad for your skin*". Table 2 shows the results for some key attitudes communicated in the advertising campaign, and shows the prevalence of attitudes at baseline and after the third wave of media advertising, for all young people and for smokers as a separate group.

[Table 2 here]

In the baseline survey, high percentages of young people already agreed with many of the anti-smoking attitudes, specifically "*There are better ways to control your weight than smoking*", "*Smoking wastes money*" and "*Smoking reduces your fitness for sport*".

One of the central messages in the first advertising concept was that smoking is bad for the skin. Agreement with this statement increased significantly from 81% in the baseline survey to 90% after the final wave of media ($p < 0.05$). Other attitudes communicated in the campaign were "*Smoking wastes money*" (change from 93% to 95%, not significant), and "*Cigarettes are a fake way of relaxing*", (from 76% to 78%, not significant). Among attitudes specifically communicated by the second advertising concept, only agreement with "*Tobacco companies suck young people into smoking*" increased significantly, from 50% to 57% ($p < 0.05$).

Smokers showed more marked changes in their attitudes (Table 2). For example, agreement with "*Cigarettes are a fake way of relaxing*" increased significantly from 32% to 46% ($p < 0.05$) and with "*Most boys/girls are put off by the bad breath of smokers*" increased significantly from 47% to 62% ($p < 0.05$). "*Smoking cigarettes gives you bad skin*" increased in agreement from 61% to 75% ($p < 0.05$).

Discussion

The results indicate that the campaign generated high awareness in the target group, was considered relevant by young people, and appeared to have prompted important changes in both attitudes and behaviour related to smoking. Although the results described here are preliminary and focus on the short-term impact of a major intervention project, they are very encouraging.

The campaign used selective TV scheduling in programmes that attract large audiences from the target group. This achieved very high levels of awareness and the majority of young people had seen the advertisements several times. Furthermore, message relevance increased after each wave of media and it is possible that repeated exposure to the campaign increased the familiarity of the information and thus its relevance among the target group. Other studies have indicated that multiple

exposure to messages can enhance their impact (Bauman, LaPrelle, Brown, Koch and Padgett 1991, Hafstadt, Stray-Pedersen and Langmark 1997). In the present study, the relevance of advertising concept 1, showing young people experiencing and discussing the short-term consequences of smoking, increased to 74% following the third wave of media scheduling, when this advertisement was shown again.

Some anti-smoking media campaigns that have achieved positive results with young people have attributed these to the use of formative research with the target group along with pre-testing of media concepts and closely targeted scheduling of the campaign (Flynn, Worden, Secker-Walker, Badger, Geller and Costanza 1992, Worden, Flynn, Solomon, Secker-Walker, Badger and Carpenter 1996). These factors may also have contributed to the success of the present campaign, which included detailed formative research to develop the communication strategy, pre-testing of the initial advertising concepts with young people and close matching of the media schedules to peak viewing times (Clarkson et al 1999).

The campaign evaluation also showed significant increases in negative disposition towards future smoking among current smokers and increases in the percentages of young people reporting to have never smoked. Although the majority of young people already held negative attitudes to smoking in the baseline survey, this was not the case among smokers. After the third wave of media activity, higher percentages of smokers held negative attitudes to smoking across a number of different attitudes communicated in the campaign.

It is important to emphasise that the media campaign described in this paper was only one component in a comprehensive community-based intervention, which included school curriculum materials targeting 10-12 year-olds, advocacy, sponsorship of youth sport and arts events with the Smarter than Smoking message (Holman et al 1997) and promotions through music and clothing stores. It is likely that this broad approach was a factor in the positive behavioural and attitudinal outcomes observed (Stead et al 1996). Prior to the completion of the first three years of the project, a further three years' funding was allocated by Healthway to extend the campaign to six years. Future studies will monitor the longer-term outcomes to identify whether these promising early achievements can be sustained, and compare trends in adolescent smoking in WA with the rest of Australia, where programmes of this magnitude are not present.

Acknowledgments

The Smarter Than Smoking Project is funded by the Western Australian Health Promotion Foundation. Thanks are due Penny Coase and Penelope Kennish of Donovan Research for assistance with the school surveys and data analysis.

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Table 1: Smoking behaviour among 13, 14 and 15 year olds in each survey

Lifetime experience of smoking	13 year olds				14 year olds				15 year-olds			
	%				%				%			
<i>Survey</i>	B	I	II	III	B	I	II	III	B	I	II	III
<i>n</i>	731	886	814	274	671	912	967	321	60	760	722	223
Never smoked	45	46	52	51	33	37	40	42*	28	34	28	34
Smoked fewer than 10 cigarettes	38	35	32	36	37	35	32	35	28	34	33	34
Smoked more than 10 cigarettes	16	18	16	13	28	28	28	23	43	32	28	31

* P<0.05

Table 2 : Attitudes towards smoking

Attitude	<i>Survey</i>	All		Smokers	
		<i>n</i>	Baseline	III	Baseline
		1572	950	223	122
Smoking cigarettes gives you bad skin		81	90*	61	75*
Smoking wastes money you can spend on other things		93	95	72	80
Cigarettes are a fake way of relaxing		76	78	32	46*
Most boys/girls are put off by the bad breath of smokers		72	78	47	62*
Tobacco companies suck young people into smoking		50	57*	31	38

* P<0.05