

The Role of Media in Oral Health Promotion–Media Advocacy and Dental Public Health

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Abstract

Mass media is an important information source in modern society for the general public to obtain health information. Health related articles and news through media may influence policy makers, consumers of health services and the population in general; and may therefore affect provision and use of health services and health related behaviors. Good and substantial oral health behaviors require implementation of the knowledge with an integration of health education and health promotion. The belief that the mass media are a powerful tool in health education capable of persuading people to adopt particular attitudes and practices in the health field in terms of a “direct effects” model has been widespread. In the context of providing information to the public, mass media has social responsibility to provide the accurate and evidence based information. It is recommended that public health campaigns through mass media should a healthy diet, the maintenance of good oral hygiene, and fluoridation of public water supplies as key measures for children (and indeed the whole population) to maintain good oral health.

Key words: Media; Mass Media; Social Media; Oral Health; Oral Health Promotion; Health Education.

Introduction

Health Promotion and Oral Health Promotion

Health promotion is a strategy for improving the health of a population by providing individuals, groups and communities with tools to increase control over and improve their health and wellbeing. Health promotion has the potential to be particularly effective in improving the oral health of a population, given the complex interplay of factors that underlie good oral health. Oral health promotion therefore is any planned effort to build public policies, create supportive environments, strengthen community action, develop personal skills or reorient health services in ways that will influence these factors.

The following are all examples of effective Oral Health Promotion: (a) promoting healthy eating (b)

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teaching effective oral hygiene practices (c) facilitating early access to preventative dental services (d) promoting use of topical fluorides.

Education results in a change in knowledge, increasing the possibilities for people to take control over their own health options. An important method in such a context is the use of media. Using mass media, the public can be updated about health risks and mass media can play a supporting role for disease prevention and health promotion [1].

Mass media can be used to influence knowledge and attitudes by series of signs and symbols, encoded in the messages to raise attention and motivation for desired actions [2].

Mass media is an important information source in modern society for the general public to obtain health information. Health related articles and news through media may influence policy makers, consumers of health services and the population in general; and may therefore affect provision and use of health services and health related behaviors. In the context of providing information to the public, mass media has social responsibility to provide the accurate and evidence based information. It helps health workers expand their audience reach, which is crucial considering the fact that face-to-face channels of communication often require too many human resources and reach

only a small number of people in large, underserved rural areas. The mass media, in the form of the radio and television, are an effective way to persuade target audiences to adopt new behaviors, or to remind them of critical information [3].

The purpose of this paper is to briefly describe the literature on the effects of these mass media campaigns to review the empirical evidence of the effects of campaigns on awareness, knowledge, attitude formation, and behavior.

Methods of Dental Health Education

1 Direct Method “Face to Face”

It is the most intensive form of oral health education. Two approaches are used: Individual instruction and Group instruction.

A. Individual Instruction–It can occur:

- School dental inspection.
- Dental prophylaxis or fluoride treatment.
- Visits to the dental office
- During individual dietary instruction.

B. Group Instruction:

- Formal Group
- Informal Group

Educational techniques include the following:

1. *Lecture*: It is a semiformal course in which instructor presents a series of events, facts, concepts or principles, explores a problem, or explains relationships while the learners participate mainly as listeners.

2. *Demonstrations*: It shows how to perform an act or use a procedure and it is accompanied by oral and visual explanation, illustrations and questions.

3. *Field trip*: This is carefully planned educational visit or tour in which a group visits a place of interest for observation and study. This tour takes place under the guidance of a person who is well informed about the area under consideration. It stimulates the interest and participation of learners. It allows the illustration of the results of practice or a course of action in its normal environment.

2. Indirect Methods

In this method the educators are not seen by the learner. It is done through the media.

These tools are best grouped in two categories:

- The mass media used in reaching the public.
- The written and audio-visual aids used in teaching individuals or small groups.

Mass Media

When we hear the term Mass media, we tend to think of something, e.g. pamphlets, newspaper, radio and television programs.

Social Media

Social media are part of today's world, from which health care is not excluded. The use of technology increasingly shifts our communication and information-gathering efforts away from paper and toward the Internet. Social media applications include blogs, LinkedIn, Twitter, Delicious, Wikipedia, Facebook, etc. We need to be sensitive to how our posted information may be interpreted in a way other than how it was intended. The increased use and growing technologies of social media can change communication patterns on health care topics. Several claims in support of social media use in health care communication have been noted: increased social support by patients through Internet-based social networks; individual patient-focused information sharing through the increase of patient-controlled, user-generated content; and increased reach of communication efforts related to health promotion topics such as dietary interventions and smoking cessation [4].

While efficacy and efficiency of traditional media campaigns are well documented in the literature, social media use such as Twitter or Facebook use in health messaging remains an enigmatic topic with a small evidence base. Traditional media campaigns are used widely in public health for a wide variety of objectives and have shown positive outcomes in terms of reach, public awareness, and to a certain extent, behavior change. Online campaigns utilizing websites or “Web 1.0” applications are also effective, but have not been adequately compared to traditional media in the literature. As more consumers turn to the internet for health related information, health organizations have begun to turn to social media as a tool for connecting with the public [5].

Choice of Media

The decision to use a particular medium should be based on audience research rather than on assumptions about its utility and audience reach. For instance, certain technologies are not particularly useful when:

- They are utilized only by a small number of people.
- They are too complicated to be operated by the average person.

Role of Media in Promoting or Discouraging Tobacco Use

The young and adolescents are considered most vulnerable to the effects of media messages, and much of the research addresses the effects of media on their use of tobacco. One study noted that children and adolescents distribute their time in using entertainment media in the following proportions: television, 46%; CDs and tapes, 12%; movies and videos, 11%; print media, 11%; radio, 10%; video games, 5%; and computer, 5%. All of these media have the potential to influence the attitudes and behavior of young consumers toward tobacco products. A large body of research exists on the impact of tobacco use in movies on attitudes toward smoking. The tobacco industry advertising campaign aimed at women is credited with the steady increase in cigarette smoking initiation rates among women.

It is especially of concern that health effects may be more frequently omitted from movies targeted toward younger audiences. As demonstrated by social learning theory, showing hazardous behaviors in the absence of negative consequences is likely to make viewers more inclined to mimic them than if the negative consequences were shown. Pro-tobacco film content has been found to promote pro-smoking beliefs and intentions in both experimental and cross-sectional studies. Various studies suggest the possibility that television viewing could be linked with smoking initiation and maintenance. Numerous studies have examined the amount and nature of tobacco-related content in high-circulation magazines, particularly magazines for women and young people. These magazines can present both positive and negative images and messages about smoking. On e-commerce sites and sites featuring hobbies, recreation, depicting smoking in association with glamour, relaxation, leisure, or alternative lifestyles is prevalent; negative health effects of smoking are rarely depicted or mentioned. Smoking

content in newer forms of entertainment media, such as increasingly realistic video games (e.g., cigar smoking in the video game *Halo 2*), has been largely ignored despite the widespread use of these games. It is unclear what social normative effects (e.g., smoking norms) are associated with playing these games. However, in domains other than smoking, the games have influenced behavior in children and young adults [6].

Role of Media in Promoting Oral Cancer Awareness and Early Detection

The mouth is easily accessible for clinical or even self-examination, and as demonstrated in some feasibility studies, early detection of oral cancer is theoretically possible. The proportion of oral cancer cases diagnosed at an early and localized stage is still less than 50%, resulting in an appalling 5-year survival rate of about 50%. A commonly cited reason for late disease presentation is the inability to recognize the early signs of cancer. Thus, raising awareness and educating the public on the early signs of cancer should enable patients to present at an early stage resulting in improved survival. More needs to be done to ensure that public campaigns are comprehensible and remembered which will ultimately result in individuals having the capacity to respond appropriately to the symptoms. The majority of the respondents who recognized at least one sign of oral cancer obtained the information from television, further confirming that television is a good media in disseminating information on oral cancer to the public. Furthermore, a recent study reported that television advertising offered the largest coverage in an oral cancer awareness campaign in comparison to other methods. Considering that the cost of the campaign is often the biggest consideration and limitation when organizing a campaign, the involvement of different stakeholders in cost sharing would be beneficial. As the majority of the respondents who correctly identified at least one sign of oral cancer obtained the information from the television, this medium remains an effective way in educating the public on oral cancer [7].

Role of media in periodontal campaign

It is generally accepted that mass communication campaigns in the health field can both provide the public with information and increase their awareness of the issue. However, it might be more

difficult to provide changes in knowledge related to an issue as well as behavior. In this context the dentists are assumed to serve as reinforcing and supporting agents by discussing the campaign messages with those who make dental visits. According to the reinforcement theory an effect of the campaign should show up as increased differences in preventive knowledge and behavior between recent and non-recent users of dental services. The role of mass communication is one of reinforcement of existing beliefs and behavior, while behavioral change is difficult to effect. Given an uninvolved audience and a modest effect upon knowledge from the campaign, it may not appear strange to observe no behavioral changes. Neither does it seem as if the knowledge message in terms of preventing periodontal diseases by improved interdental hygiene was comprehended by the public. This would appear to indicate that it is simpler to reinforce a message related to a habit which is universally accepted and practiced daily by most people, which is the case for tooth-brushing [8].

The finding that education may be an important determinant for knowledge of periodontitis is not surprising. Utilization of dental care was also associated with knowledge of periodontitis before and after the mass media campaign [9].

A disadvantage in the use of media is that there is no direct contact with the audience missing the possibility of dialogue and feedback with the respondents. Mass media campaigns have other drawbacks. Many people will not be exposed to the campaign, many will not pay any attention, some will not understand or believe the message and some are not motivated to act or will forget the message. Therefore, a successful outcome of a campaign cannot be taken for granted [10].

Influence of Television Advertisements on dental health of Children and Adolescents

A child's food choices and dietary habits are influenced by peer pressure, accessibility, and marketing. Food companies sell their products through television advertisement, newspapers, and Internet. Marketing methods, such as children's films, sporting events, film freebies, websites, school books, gifts, on-pack offers, cartoon characters, and film stars, have been used to promote confectionery, high-sugar foods, and junk foods to children. Children watch television during most of their free time. They are exposed to advertisers' messages and are vulnerable to sophisticated advertising.

Companies invest in advertisements on channels watched by children, especially those selling toys and high-sugar food products [11].

The commercialization of children's television programs is one of the several concerns raised by child health professionals, regarding the impact of television on children's wellbeing. Fast food has become a prominent feature of children's diet throughout the world. Television is one such medium of propagating many food items. It is the most efficient and effective promotion tool, especially when the target group is children. Children who watched television advertisements had a greater dmft/DMFT score. This suggests that advertisements do have an influence on children's character, behavior, and eating habits, thus resulting in higher caries prevalence. It would be difficult to prove that television advertising has a direct effect on oral health, given the multifactorial nature of dental caries, but a significant correlation between watching television advertisement and dental caries has been shown. The children are being bombarded with commercials of sugar-rich products. These commercials are also misleading because slender, healthy kids were shown gleefully and frequently snacking on high-calorie, low-nutrient foods without consequences typically seen in real life (e.g. obesity, dental caries). Most of the children are fond of cartoon channels and watch them regularly. The Cartoon Network (39.8%), Pogo (14.5%), and Hungama (12.0%) were the most favorite channels. None of the children viewed news channels. On children's favorite channel, advertisements for oral hygiene products were related only to toothbrush and toothpaste, and none were related to other dental aids, information on regular visit to the dentist, and other oral hygiene-related instructions. Advertisements for healthy food, education, and health-related information should be encouraged on children's favorite channels during their favorite shows [12].

In another study, the vast majority (95.3%) of food and drink adverts shown promoted products that could be detrimental to oral health as they contained high levels of sugar and/or acid. Equally concerning was the total absence of advertisements for non-cariogenic/ nonerosive items such as fruit, vegetables, milk or plain water [13].

It is not surprising therefore, that consumer associations and health professionals are calling for greater regulation of food advertising to children. The prominent campaign group, Sustain (the alliance for better food and farming) recommend that adverts for unhealthy foods are prohibited during periods when

large numbers of young children are likely to be viewing [14].

The ADA (Australian Dental Association) recommends public health campaigns to promote a healthy diet [15], the maintenance of good oral hygiene [16], and fluoridation of public water supplies as key measures for children (and indeed the whole population) to maintain good oral health [17].

Conclusion

Mass media clearly can be an effective tool for health promotion whether the effort is on a national or local scale. The role of mass media health campaigns in particular is more likely to be in creating awareness and knowledge of a campaign message rather than achieving behavioral changes. We should stop arguing whether they are more or less effective than other strategies or whether one channel is better than another. Instead we should carefully formulate our conceptual model of how we expect an intervention to work and then evaluate it accordingly. Health promotion interventions are not like pills – they are much more complex and indirect in the way they work. Therefore our evaluation designs may be very different allowing us to track a social influence process and document its effects on individuals. Despite the lack of evidence base, larger public health organizations are already using social media applications, and smaller units are beginning to launch them. Published evaluations of these initiatives are crude, but very positive. Reports suggest that social media is a very feasible option that is relatively easy to adopt, but requires adequate and appropriate human resources to maintain. Success of social media applications may also be related to the development of a strategic business plan for its use in a particular public health context. Given the rapid and exponential growth of social media use, development of best practices guidelines for public health organizations based on current research are crucial for adapting social media to every day public health practice.

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