

Mass Media for Health Communication and Behavioural Change: A Theoretical Framework

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Abstract

Health communication is a technique of informing, influencing, and motivating individuals, institutions, and public at large about important health issues. Mass media have an important role in health communication. The objective of this study is to investigate the role of mass media in health communication. A systematic review of different health campaigns based on health communication theories and models for attitudinal and behavioural changes have been done. Research papers related to health communication theories and models for attitudinal and behavioural changes published in peer reviewed journals have been reviewed for the purpose. These research papers were selected through multiple searches with different key words such as 'health communication theories', 'television and HIV/AIDS', 'health communication for behavioural changes', on INFLIBNET online library such as Jstor, Taylor and Francis, Willey Blackwell etc. The study finds that driven by different theories and models, mass media are using communication strategies such as infotainment/edutainment and are using Sitcoms and Suspense thrillers in developing countries for creating health awareness and for attitudinal and behavioural changes. The study also indicates that television is a powerful tool for informing, influencing and motivating people towards achieving desired behaviour particularly in relation to HIV/AIDS and other health related issues which warrant attitudinal and behavioural changes.

Keywords: Health communication, attitudinal and behavioural changes,

TRA, TPB, HBM, SCT, Cultivation theory, Diffusion of Innovation, HIV/AIDS

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INTRODUCTION

The theories relevant to the use of mass communication/mass media for health communication primarily connect communication process to health awareness and also to attitudinal and behavioural changes pertaining to health issues in target group(s). Petty, Brinol and Priester (2009) believed that mass media play important role in creating awareness and mobilize people towards positive change in health behaviour. Several theories of health behaviour such as Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Social Cognitive Theory (SCT), Health Belief Model (HBM) etc. identify pathways and determinants that ultimately lead to changes in health behaviour. Major theories in mass media studies such as Diffusion of innovation, Cultivation Theory and Agenda Setting help to identify impact of health campaign. Based on a review of major theories of health communication, Fishbein et al., (2002) opined that four factors could influence individual's intention and behaviour:

- a) Perceived susceptibility of the individual to an illness or disease;
- b) Individual's attitude towards a particular health behaviour;
- c) Perceived norms, in turn, influenced by the group and the community environment in which an individual operates;
- d) Self-efficacy, an individual's confidence in performing behaviour.

Together, these four sets of factors can decide success of mass media health campaigns. Mass media, especially television and cinema are important tools in shaping up modern life style. Policy makers use television, cinema and newspaper for shaping health related attitudes and behavior of the people

because mass media have enormous impact on individuals and society.

Mass media influence attitude and behaviour of the people at four levels, viz., Individual level, Network level, Organisational level and Community or Societal level (Kreps, 1988; Kreps & Thornton, 1992; Thornton & Kreps, 1993). An attempt has been made in this research paper to understand and analyze different theories in relation to role of mass media for health communication and behaviour change at all these four levels. Experiences and experiments pertaining to all these theories have also been discussed.

Individual or Intrapersonal Level

Individuals have their own beliefs, experiences, attitudes, intentions regarding any existing health behaviour. They examine pros and cons on the basis of these beliefs before performing recommended health behaviour. Therefore, health policies must have abilities to dispel previously existing beliefs and health behaviors. Prior to formulation of health promotional strategy, it is necessary for policy makers to identify individual's existing beliefs and behaviours. Therefore, individual or interpersonal level theories can be helpful to understand individual's behaviour. In addition to exploring behaviour, individual level theories focus on belief, knowledge, attitude and self-efficacy. The success of HIV/AIDS prevention interventions are often based on health behaviour theories which emphasize skill and capacity building associated with disease prevention (Greene, Hale and Robin, 1997). There are several theories related to individual level health behaviour change communication and some of the most important theories and models of health communication including Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Health Belief Model (HBM), and Social Cognitive Theory (SCT) have been discussed here.

Theory of Reasoned Action (TRA): According to TRA, two factors, i.e., attitude, and subjective norms affect an individual's intention to perform certain behaviour (Ajzen, 1975; Fishbein, 1979). A person holds belief that a particular behaviour leads to a certain outcome and he/she evaluates the outcome of that behaviour. If the outcome seems beneficial to the individual,

he/she may intend to participate in a particular behaviour. Subjective norms, on the other hand, arise from normative beliefs which shape a person's perception to perform certain behaviour. In its purest essence, the subjective norm is a type of peer group pressure. These peer groups may be friends, family members, co-workers, community leaders, neighbors etc. The TRA also assumes that the individuals are rational in decision making process; individual's presumption may not be entirely relevant for HIV/AIDS related behaviour that is heavily influenced by emotions (Airhihenbuwa & Obregon, 2000).

Several studies (Nanyonjo, 2009; Corcoran, 2007; Fishbein & Yzer, 2003) revealed that the application of TRA in HIV/AIDS prevention campaigns explore linkages between individual's attitudes, beliefs, intentions and behaviour. They suggested that person's normative beliefs which affect individual's behavioural outcomes are very important for success of health promotion intervention. Delaney et al. (2004) reviewed TRA based mass media campaign of road safety, which was designed to improve the road user's behaviour and encourage people for safe driving. The differing roles of publicity in public health promotion has been identified and discussed in the context of theories of behaviour change. They reported that campaigns with emotional appeal are more effective than those which are purely informative. Beadnell et al. (2008) also examined utility of TRA for predicting men's safer sexual behavioural practice in the context of three variables, i.e., practice of monogamy, use of condoms with steady partner and intention to use condoms with casual partners. The study considered a single outcome variable, i.e., behaviour for which intention, attitude, self-efficacy and subjective norms were measured. The study found that these variables had effect mediated by TRA variables of self efficacy, attitude and social norms while others directly affected intention or behaviour or both.

Theory of Planned Behaviour (TPB): TPB was developed by social psychologists and has been widely applied to understand health behaviour (Ajzen, 1991). The theory incorporates some of the central concepts in social and behaviour sciences and it defines those concepts in a way that permit

prediction and understanding of particular behaviours in a specified contexts. According to TPB, behaviour is influenced by individual's attitude and attitude is influenced by existing beliefs, and the subjective norms endorse the execution of the behaviour. The TPB differs from TRA that includes an additional construct, i.e., perceived behavioral control which permits individual to do certain behaviour. For instance, a baby is suffering from Small pox; the behavioral beliefs of her parents may be that it is a divine disease and may cure by itself within a week. Here attitude is shaped by beliefs of an individual which impacts his/her health behaviour. Consequently, an individual may accept or reject recommended behaviour. Because of social norms regarding disease, sometimes behaviour change process may face conservative thinking types of obstacles but here, motivation to comply act as a catalyst motivate people to perform certain behaviour.

European Monitoring Center for drugs and drugs addiction (2013) used TPB to design mass media campaign for prevention of drug use among adolescents. The campaign often addressed specific substances with the objectives to reduce the use of drugs and raise awareness about associated problems. According to TPB, drug use is a consequence of a rational decision (intention), which is based on the individual's attitude to use drug, the perceived social norms towards drug use, and the belief about controlling one's own behaviour. Health interventions are aimed at setting or clarifying social and legal norms regarding drug use. Stead et al. (2002) mentioned in their study that Scotland road safety department also used TPB to design "*FoolsSpeed*" campaign. The aim of "*FoolsSpeed*" campaign was to reduce inappropriate and excessive speed on Scotland's roads. The campaign was started in 4 phases from 1998 to 2001. The 1st phase of the campaign introduced campaign logo and key messages. The 2nd phase of campaign named "*Mirror*" was designed to address attitudes regarding speeding and speed choice. The 3rd phase of the campaign named "*Friends and family*" was designed to address subjective norms in relation to speeding and last phase of the campaign named "*Simon Says*" was designed to control perceived behavioural control. The realistic approach of campaign was successful in creating awareness

about road safety. Oyero & Salawu (2014) said that TPB is helpful in understanding sexual behaviour change in the process of fight against HIV/AIDS.

Health Belief Model (HBM): HBM consists of three parts that are individual perception, modifying factor (gender, age) and likelihood of action (Becker and Rosenstock, 1984). This model can be used as a pattern to evaluate individual's behavioural change. The HBM proposes that behaviour of an individual can be predicted on the basis of how is he vulnerable? The vulnerability depends upon individual's perception regarding disease. The vulnerability is expressed through risk (perceived susceptibility) and seriousness of consequences (severity). The perceived susceptibility and severity variables are needed to be considered before taking decision. This means that an individual has to examine cost and benefit or plus/minus before performing intended health behaviour. For example, a person must have perception of the susceptibility or risk of the health problem like HIV/AIDS and the problem must be seen as severe (Freimuth, 1992, p.101). Thus, the HBM suggests that a person must weigh the costs and benefits before taking decision. Cue to action works as a catalyst to remove perceived barriers (Uwalaka & Matsuo, 2002).

United States government launched "*Let's Move*" campaign under health promotion initiatives which was based on HBM and SCT (Georgiadis, 2013). The "*Let's Move*" campaign was designed to prevent childhood obesity. The campaign released a series of Print, TV, Radio and outdoor public service advertisements to influence and motivate public for behaviour change. The campaign was popular among US citizens and was successful to educate viewers how to prevent childhood obesity. The study found that "*Let's Move*" was successful in engaging US citizens in fitness and weight loss activities. To check utility of HBM, Adeokun et al. (2013) examined the five components of HBM using multivariate analysis. These components are perceived severity, perceived susceptibility, perceived benefits, self-efficacy and cue to action. They found that only three out of five components are strong predictors of HIV/AIDS related sexual behaviour change such as intention

towards risk reduction changes and use of condoms. The study suggests that the major HBM predictors of behavioural changes in Ibadan, South West Nigeria were perception of self-efficacy, perception of risk infection, knowledge of People Living with HIV/AIDS (PLHAs) and exposure to HIV/AIDS prevention campaigns. Thus, perception of self-efficacy, perception of susceptibility and cues to action, i.e., mass media campaigns, were the critical HBM components affecting behavioral change of the targeted groups.

Turner et al. (2004) studied design, implementation and effectiveness of Osteoporosis prevention programs on 300 middle aged women by using HBM. The response was positive as 392 people attended the orientation classes. The study concludes that increasing perceived severity, perceived susceptibility, perceived benefits, self-efficacy and cue to action while decreasing perceived barriers were actions which encourage people for participation. Tarkang and Zotor (2015) investigated possibility of HBM in HIV/AIDS prevention. Their study revealed that HBM is very useful in sexual behaviour change. Thus, mass media campaigns based on HBM motivate people to practice safe sexual behaviour. It may be applied to adult education program that primarily focuses on increasing use of condoms that aims to prevent pregnancy, sexually transmitted disease (STDs) and HIV/AIDS infection. The secondary objective of the programs is to increase early detection of sexually transmitted infections (STIs) or HIV.

Interpersonal / Network Level

Interpersonal or Network level theories of health behaviour are based on the premises that individuals are influenced by social environment where they reside and operate. Social environment may create favourable environment which is helpful for adoption of new health behavior. The opinions, thoughts, behaviour, advice and support of the people's surroundings influence an individual's feelings and behaviour. The individual has also a reciprocal effect on those people. The social environment includes family member, friends, colleagues, shopkeeper, opinion leader, religious leader, politician, and doctors etc (Glanz & Rimer, 2005). There are several theories

reported at interpersonal level but here Social Cognitive theory and its related studies only will be discussed.

Social Cognitive Theory (SCT): The Social Cognitive Theory explores reciprocal interactions of people and their environments, and physical determinant of health behaviour (Bandura, 1989). SCT proposes that people not only learn from their own experiences but also from cognition (self-efficacy) of social environment existing around them. According to SCT, three factors affect the likelihood that a person will change health behaviour, viz., Self-efficacy, Goals, Outcomes expectancies. SCT is an improvisation over Social Learning theory (Bandura, 1977). Social Learning Theory says that people learn from their experiences by observing actions of others and benefits of those action while SCT says that people learn not only from their experiences but also from cognition (self-efficacy) and social environment around them. Oyero & Salawu (2014) stated that if an individual has a sense of self-efficacy, he/she can change sexual behaviours even in the presence of barriers. For e.g., HIV/AIDS messages require building people's self-efficacy towards desired sexual behavioural change, so that they can have motivation to live an ideal sexual life by believing that they can control their sexual behaviour. Jorgensen et al. (2001) used SCT in planning their health campaign to promote colorectal cancer screening. The program was designed to raise awareness of colorectal cancer and motivate people aged 50 and older to discuss with doctors about colorectal cancer screening. Eadie et al. (2009) emphasized that SCT was the basis of successful mass media campaign to promote screening for early detection of mouth cancer among people of Scotland. The media campaign aimed to increase public awareness and knowledge of mouth cancer and to encourage early detection of disease among high risk populations aged over 40 years. The campaign's evaluation suggests that it was successful in improving awareness of symptoms and in encouraging people to participate in screening for early detection of mouth cancer.

SCT has been successfully experimented in HIV/AIDS awareness and prevention programs. Bandura (1992) said that prevention of HIV/AIDS

infection requires people to exercise influence over their own behaviour and their social environment. SCT also points that individuals go through cognitive process before taking decision and weighing pros and cons of practicing sexual behaviour. In this regard, Safran et al. (2010) suggest that SCT is particularly useful in explaining pathways of HIV/AIDS transmission behaviour in Men having Sex with Men (MSM) who did not participate in the screening process due to fear and lack of confidence.

Community / Societal Level

Community level models explore how a social system functions and changes. These theories and models also explore how to mobilize community members and organizations for adoption of recommended health behaviour. Community level models offer strategies that work in a variety of settings, such as health care institutions, schools, worksites, community groups and NGOs and government agencies. Communities are understood in geographical terms. Any community has its own treasure of knowledge, experiences, values, beliefs, attitudes, language, rituals, folklore, lifestyle, and customs in a specific period of time and particular region but it can be defined in terms of other criteria as well. For example, there are communities of shared interests e.g., artist community, doctors community, engineers community, teachers community, bureaucrat community etc. The conceptual framework in this section offers strategies for intervening at community level.

Communities itself find out the problems and their solution. However, public health professionals often adopt the method of community organizing programs that reflect priorities initiated by them. Community organizes programs with the community's priorities rather than with extremist public health agenda. Community organization merged with ecological prospective recognized multi-level of health problems (WHO, 1986). It can work with SCT based strategies that take into account the dynamics among personal factors, environment factors and human behaviour. Social System Theory (SLT) and SCT influence the health decision making process of human being. SLT can also be useful for this purpose. Community organizing is not a

single mode of practice; it can involve different approaches to effect behavior change i.e. society development, Social planning and social action. At time, these models may overlap and combine.

Diffusion of innovation (DOI): According to Rogers (1995), diffusion is a process by which an innovation is communicated through certain channels over a period of time among members of a social system. It is targeted communication in which message concerning new ideas are propagated. The DoI model advocates that scientists and development planners must share information with one another in order to reach mutual understanding and development. DoI has been used to study the adoption of a wide range of health behaviours and programs including smoking cessation and use of new test and technologies by doctors and development planners. Two most important principles of DoI used in HIV/AIDS prevention campaigns are creating awareness about HIV/AIDS infection and its prevention and using opinion leaders to influence attitudes and behaviour of the masses (Freimuth, 1992). According to Bertrand (2004), DoI was central to one of the most HIV/AIDS prevention programs to date, i.e., “Stop AIDS” in San Francisco. In early 1980s, gay men in San Francisco took action to combat this deadly disease. The “Stop AIDS” campaign was begun by conducting focus group discussions (FGDs) to learn awareness level of gay community about HIV/AIDS. However, campaign planners soon realized that FGDs were having a strong educational effect, as men shared information about HIV/AIDS prevention. Thereafter, “Stop AIDS” employed a group of outreach workers from the gay community to conduct small group meetings in homes, which was the beginning of DoI process in the fight against HIV/AIDS. From 1985 to 1987, “Stop AIDS” campaign reached 30,000 men through its various outreach activities.

Cultivation Theory (CT): In the 1960s, George Gerbner developed a research project called Cultural Indicators, which was designed to provide a broad, integrated approach to study television policies, programs, and impacts (Gerbner, 1969). The cultural indicators approach involves a three pronged research study, i.e., institutional process analysis, message system analysis

and cultivation analysis. Institutional process analysis was designed to investigate formation of policies for massive flow of media messages while message analysis and cultivation analysis, both relate and help to develop theories about most subtle and widespread mass medium, i.e., television. He coined a theory of media effects called cultivation. He argued that mass production and distribution of message systems transform selected private perspectives into broad public perspectives. For most viewers, the new types of delivery systems such as cable, satellite and Internet meant even deeper penetration and integration of dominant patterns of images and messages into everyday life (Gerbner, 1998). Cultivation theory helps us to understand the consequences of growing up and living in a cultural environment dominated by television and it has also been used to explore behavioural effect of television. However, psychological health has received less scrutiny in relation to effect of television programs. According to Gerbner & Gross (1976), the cultivation theory is a social theory which examines the long term effects of the television. The primary proposition of Cultivation theory states that the more a person is exposed to a message provided by the media, the more likely that the person starts believing that the message is real and replicable. He investigated the extent of television in which television viewing contributes to audience conceptions and actions in areas such as gender equality, minority, human rights, age role stereotypes, health, science, the family, educational achievement and aspirations, politics, religions and other topics. Morgan, Shanahan & Signorielli, (1994) validate cultivation theory and say that prolonged exposure to a set of mass media messages can influence behaviour, beliefs, values or attitudes of the viewers. Several longitudinal studies on adolescents (Gerbner, Gross, Morgan & Signorielli, 1980; Morgan, 1982; Morgan, Alexander, Shanahan & Harris, 1990) showed that television can exert an independent influence on attitudes and behaviours over a time, but that belief structures and concrete practice of daily life can also influence subsequent viewing.

Soul City Institute and partners used community for promoting public health and societal development in South Africa. Soul City's model of social

and behavioural change used mass media to advocate and mobilize targeted individuals, communities and border society. In this program five communities were tasked to make their areas better by addressing health and communities development issues. The focus of program planners was enabling community members to organize themselves in order to solve their problems. Soul City used popular media to spread development messages for which a reality series was documented into 13 episodes and engaged audience to vote most successful community. The Soul City telecast 15 sessions of two edutainment series named “*Soul City*” and “*Soul Buddyz*” targeted at 8 to 12 years old respectively. The program was also recorded in the form of radio drama in 11 official languages of South Africa and broadcast on radio. Before shooting the reality program, Kwanda learning camp used methodology called organization workshop. The learning camp provided an opportunity to participants to learn how to convince a community gathering including governmental department and NGOs for HIV counseling and testing. The series got high viewership, attached more than a million audiences on late night television show and feedback of the audience indicated that many viewers were motivated and willing to take action for betterment of communities. The study also indicated that how television can be a useful tool for making authorities and leaders more accountable. The research findings showed that communities were capable to find out solution of problems by providing favourable and right environment and resources. It also showed that when communities organize themselves it became easier for responsible authorities to deliver development services (Ramafoko, Andersson & Weiner, 2010).

Organization Level Health Behaviour Change

Organizations too can play a crucial role in health promotion (Flora, Maibach & Maccoby, 2010). The organizations such as universities, schools, workshops, supermarkets, outlet centers, mills, NGOs and factories etc help to identify common health problems and mobilize government agencies, NGOs to make sure availability of resources and to develop and

implement strategies for achieving collective goals while health educators can also utilize organizations for delivering health messages. The objectives of organizational level health promotion efforts are to improve health of employees, their family members and consumers. Organizations must set an agenda for health promotion and create awareness about health issues. For internal and semi-internal audiences, organizations can provide fitness equipments, gym facilities, healthy food canteen, machine for health screening, blood pressure check-up and health activities within organization which can be helpful for health promotion. Organizations can use mass media to promote health of employees and their family members. Newsletters, pamphlets and brochures can be helpful for informing about health promotional activities. Budget, health workers and equipments are very important resources to achieve organizational level health behaviour.

For consumers, organizations such as universities, NGOs, supermarkets and multiplex cinema groups can be utilized for spreading messages to improve public health. *Anna* FM located in *Anna* University campus, Chennai, India produced a project called “*Shakti Arivayadi*” (Know your power, Women!). The Program was aimed to spread science information among women community living in rural areas. It was a long project with main topic like women’s health, environment awareness, food and nutrition etc. Another health promotion program was launched by Stanford University for health improvement of university employees. The objectives of health program were to increase physical activities and decrease weight of participants. Social and behavioral strategies were implemented as a way to engage participations in the exercise program. Yet another health campaign “*Health Plus*” was started by Institute of Health & Aging, University of California for their employees. “*Health Plus*” offered a variety of services that were designed to enhance the employee’s health by physical, mental and social activities (Center for Disease Control and Prevention, 2011).

CONCLUSION

This study finds that the behavioural change approach of health interventions has moved beyond the interpersonal and mass media mediated levels. Health communication interventions at interpersonal, small groups, organizational, community and cultural levels have become more effective. Theories and models of behavioural prediction/change are particularly useful for those health interventions that aim to develop and strengthen intention of targeted groups to perform a desired behavior. The study also finds that theories do provide framework for health intervention to impart message to change targeted beliefs. Campaign planners have amalgamated two or more theories to design health intervention and evaluate its effectiveness at various levels. For example, TRA, TPB and SCT help to deliver health message effectively at individual level where as Cultivation Theory and DoI help to deliver and evaluate health messages at Organizational and Community or Societal levels. Theories such as TRA, TPB, HBM, SCT have been used to identify individual's existing attitudes, beliefs, experiences and intention related to health issues and concerns and have also been used to design effective health promotion campaigns to address health problems. Finally, the study finds that an innovative health program coupled with a creative communication strategy can effectively reduce health problems.

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