



## Imperative role of mass media to change human-health related behaviours: A review

Shubham Vasuja<sup>1</sup>, J Balamurugan<sup>2</sup>

<sup>1</sup> B.Tech Biotechnology Student, School of Bio Sciences and Technology, Vellore Institute of Technology, Vellore, Tamil Nadu, India

<sup>2</sup> Assistant Professor, School of Social Sciences and Languages, Vellore Institute of Technology, Vellore, Tamil Nadu, India

### Abstract

Mass Media, in general refers to a form of communication that is to a large group(s) of people. In this 21<sup>st</sup> century, mass media and its tools are becoming very popular among various different fields. One can also say that mass media has touched the globe as each and every social issue as well as national and international problems have been addressed on the tools of the mass media. Moreover it helps in awaking people about miscellaneous activities happening around the world and hence helps people to be up to date. In this era, people live very sedentary lifestyle where they have no time to contribute to health and fitness. But health is a major concern in life and one should know how to keep themselves fit even in a busy and hectic schedule. It is a fact that mass media has contributed in awakening humans towards good health and good health practices. Mass media and mass media campaigns can produce positive changes or prevent negative changes in health-related behaviours across large populations throughout the globe. Here, this review focuses on the importance of mass media and mass media campaigns in changing human health related behaviours.

**Keywords:** mass media, good health, health related behaviours

### 1. Introduction

The mass media is a diversified collection of media technologies as well as tools that reach a large no. of audience via the process which is called as mass communication. Mass communication may be referred to the technology that is used to communicate to a large group, or groups of people in a short frame of time. Mass media have the ability to provide information on health-related issues which in turn may induce several changes in health services utilization, which may be through some planned campaigns or unplanned coverage. Now there has been a change in the concept of mass media, where basically the boundaries of traditional medium such as newspaper, radio and television has now been integrated online as well. So, in general we can say that due to the advancements in Science and Technology, there has been a

great up liftment and advancement of the tools of mass media. In the present day scenario, the mass media cover health related topics very often. People mostly use the technologies these days in daily routine and mass media campaigns aim to promote the health of the public by exposing them to various messages and facts related to health with the help of tools of mass media. Mass media and various other campaigns have generally aimed primarily to impart knowledge, provide awareness and change the attitudes, contributing to the goal of changing behaviours related to the health. The various health related human behavioural changes have been discussed in this review article under various subheadings as a result of increased use of the tools of mass media, which can be visualized in the form of the mind map given in figure 1.

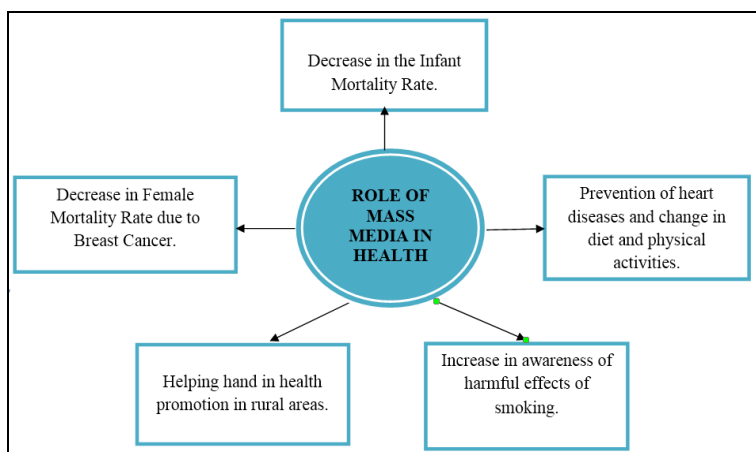


Fig 1: Role of Mass Media in various Human Health Related behaviours

### 1.1 Decrease in Infant Mortality Rate

Infant mortality refers to deaths of young children, typically those less than one year of age. It is measured by the infant mortality rate (IMR) which in general basically refers to the number of deaths of children under one year of age per 1000 live births. In many low-income countries or simply we can say that the developing countries, a substantial portion of premature mortality and associated morbidity occurs between birth and age 5 years. This is really a major issue. There are many reasons for infant mortality. Major causes for the same include inadequate treatment of dehydration resulting from diarrhea as diarrhea is one of the common diseases in infants due to less developed digestive system, non-vaccination for preventable diseases and failure to breastfeed for sufficient time <sup>[1]</sup>. Premature birth is the biggest contributor to the IMR as the child born is under developed. Other leading causes of infant mortality are birth asphyxia, pneumonia, term birth complications such as abnormal presentation of the fetus umbilical cord prolapsed, or prolonged labor, neonatal infection, diarrhea, malaria, measles and malnutrition <sup>[2]</sup>. One of the most common preventable causes of infant mortality is smoking during pregnancy <sup>[3]</sup>. Smoking may lead to abortion or the delivery of baby with many disorders. Not only these there are other factors also that contributes for the same, such as the mother's level of education and knowledge, environmental conditions, political and medical infrastructure and teenage pregnancy too <sup>[4]</sup>. Improving sanitation, access to clean drinking water, immunization against infectious diseases, and other public health measures can help reduce high rates of infant mortality. Each of these causes has been the target of mass media campaigns, with evidence for success. Also, the success in this issue with the help of mass media could be analyzed with the help of the given case studies.

### 1.2 Case Study 1

In Japan, before 1960, newly born infants mortality rate was very high. At that time Influenza was the major cause of the death of infants. So after that mass vaccination of school children against influenza was introduced and therefore a decrease in infant mortality rate was there. But there was a discontinuation in this trend in 1994 due to which again there was a substantial increase in the rate. At that time the major factor contributed to the regain of the popularity of this vaccine was mass media. There was publicity through the tools of mass media like print media regarding the importance of influenza vaccine which contributed to save the lives of various infants <sup>[5]</sup>. Hence, mass media played a major role in decreasing IMR in Japan.

### 1.3 Case Study 2

In Philippines, the vaccinations were not given due importance till 1980. Hence in 1990, Measles vaccination was selected for promotion through the mass media campaign. The reason for choosing Measles vaccine was because it was very common and also a communicable disease and hence as it was fatal, this particular vaccine was chosen. The main focus was given to the 2 vaccines viz. Diphtheria-Pertussis-Tetanus (DPT) and Oral Poliomyelitis Vaccine (OPV). For the mothers to be aware, a mass media campaign was followed between

the months of March and September in 1990 and a particular day of vaccination was fixed every week viz. Wednesday. The mass media tools used for the same were: television, radio and newspaper. Various slogans were quoted everywhere so as to make the parents aware regarding the danger of measles and the importance of the vaccination <sup>[6]</sup>. Hence mass media proved to be a helping hand

## 2. Reduce In Women Mortality Rate Due To Breast Cancer

Breast cancer is cancer that develops from breast tissue. There are two types of cancers in general, benign and malignant. The chances of death increases in case of malignant tumor. Risk factors for developing breast cancer include being female, obesity, Lack of physical exercise, drinking alcohol, hormone replacement therapy during menopause, ionizing radiation, early age at first menstruation, having children late or not at all, older age, and family history <sup>[7]</sup>. For most of the diseases there are symptoms and now-a-days with the advancement of Science and Technology, early detection of various diseases is possible. One of the most prevalent conventions in the area of health communication is that mass communication channels are relatively more important in increasing awareness and knowledge of health related risks, whereas interpersonal channels are relatively more effective in persuading individuals to adopt healthier behaviours and lifestyles. This convention is based on the notion that interpersonal channels are more useful in exchanging health information between patients and health providers, Nonetheless, there are those who believe that when there is sufficient individual exposure to well-designed persuasive health messages, mass communication channels are effective in promoting individual health behaviour change. Initially breast cancer related issues were not discussed publicly but now with the education, this issue is also reported on the mass media and there are various evidences that women are now more aware regarding this important issue and hence there is an increase in mammography screening done by various women over the age of 40 <sup>[8]</sup>.

### 2.1 Case Study

Research of many years give us a direct evidence that, for the women of age 40 years and more, utilization of mammography screenings for early detection of carcinoma of the breast can reduce mortality from this disease because of the prominence of this issue worldwide in women. An estimates by CDC (Centers for Disease Control and Prevention) indicate that the proportion of women 40 years and older who had a screening mammogram has increased steadily over the past decade in Uppsala, Sweden <sup>[9]</sup>. Mass and interpersonal channels of communication often are cited as the primary vehicle for increasing mammography related awareness and knowledge. Mass mediated channels were found to be useful in increasing awareness to the risk of breast cancer <sup>[10]</sup> as it was published and publicized in magazines and even on radios. But this is till now only applicable to the developed countries only. There is still a need to raise this issue by the tools of mass media so that the women in developing countries also get awareness regarding this issue.

### **3. Prevention of Heart Diseases, Change In Nutrition Intake and Physical Activity**

Cardiovascular disease is a leading cause of death worldwide and is a major contributor to health-care costs in developed countries and it is a fact that if a person eats healthy food, then the risk of heart diseases is reduced. Therefore, people these days like to eat fresh fruits and vegetables as it helps to keep them healthy <sup>[11]</sup>. Other factors that contribute to the heart diseases include high blood pressure, high blood cholesterol concentrations, poor nutrition, physical inactivity, and obesity. With the advancement of mass media technology, people have seriously changed their eating habits and daily routine activities. Now people prefer healthy food over junk and are involved in many physical activities as well <sup>[12]</sup>.

#### **3.1 Case Study 1**

In the late of 20<sup>th</sup> century, large-scale community-based public communication interventions aimed at preventing Cardio Vascular Disease(CVD) by some certain programmes aided by the help of mass media. So basically these programmes yielded high awareness and improvements in risk-reducing behaviours related to CVD, such as changes to food habits and food intake and increases in physical activity and other related activities like yoga and meditation. These programmes showed positive results in Finland <sup>[13]</sup>.

#### **3.2 Case Study 2**

In West Virginia, the development and advancement of mass media was since very early. From the starting of 1980s the mass media campaigns focused on the nutritional and dietary aspects. The campaigns related to diet frequently focused on reducing fat intake, but the results in terms of improving food choices seem to have been mixed. Later media campaigns focused on increasing consumption of fruits, vegetables and low-fat milk, and were deemed more successful, especially when people were provided with access to healthy foods or had health disorders for which changes in diet would be beneficial. For example: Obesity, CVD, Diabetes and Blood Pressure. Not only this, there was introduction of signs and labels providing nutritional information at the point of purchase in restaurants, grocery stores, and vending machines due to which people became more aware regarding what sort of food to choose and intake. These trends were followed in other countries also as people became more and more health conscious <sup>[14]</sup>.

#### **3.3 Case Study 3**

There is a reduction in the risk of various health related diseases if a person is involved in physical activities <sup>[15]</sup>. People live a very hectic lifestyle due to the long working hours in most states of Australia. The role of physical activities in the health promotion was highlighted on television and also by various other campaigns and other tools of mass media. Although behaviour change has been the dominant and the main purpose behind the use of the mass media in physical activity programs promotion but it has been recognized that the media is also a vital arena for policy change and public investments in infrastructure that support active lifestyle as the role of being active to have a good health was promoted through the mass media. The messages

most readily recalled were the health risks of inactivity, especially obesity, and the necessity of keeping active. The major contribution analyzed was from the television and then from the news and the analysis was done on the basis of body mass index <sup>[16]</sup>.

### **4. Helping Hand in Health Promotion in Rural Areas**

Even today, the health conditions of the people in rural areas are bad and hence they suffer from a lot of diseases and infections. The mass media 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. On the other hand, the mass media provides an important link between a large no. of rural residents and the health workers to provide vital health information.

The mass media, in the form of the radio and television, are an effective way to persuade target audiences to adopt new behaviours, or to remind them of critical information. Besides informing the public about new diseases and where to seek help, they can also keep the public updated about immunization campaigns. The mass media can “empower rural populations to fight major causes of infant mortality such as diarrheal dehydration and diseases which can be prevented through vaccination, inform large numbers of people of seasonal or daily variations for such activities as an immunization campaign or availability of a new product or service, teach new health skills such as how to mix oral rehydration solution and promote new health behaviours.

#### **4.1 Case Study 1**

In order to increase the number of children less than a year old receiving vaccinations in Manila, Philippines, radio and television broadcasts were created because almost everybody utilized one or both media channels. According to a study done later to determine the efficacy of the campaign, using the radio and television resulted in more children being vaccinated on schedule. These results show that in places where people use mass media regularly and vaccinations are available, effective radio and television spots can increase vaccination rates and extend the reach of health workers. In this way, mass media helped the children to gain immunity so as to grow up healthy without any disease or disorder <sup>[17]</sup>.

#### **4.2 Case Study 2**

In Alpine region of Switzerland, which is considered the poorest, to prevent the deaths young children from diarrhea, radio broadcasts were used to train health professionals to treat the disease, distribute relevant health materials and set up places where mothers could learn how to prepare medication properly. According to the evaluative study performed later, it was found that more than twice the number of mothers learned the correct procedure for mixing the medication from the radio than did those who learned it from face-to-face communication. This provides strong evidence that the radio campaign was a successful health communication strategy in Switzerland <sup>[18]</sup>.

### **5. Increase in the Awareness of Negative Effects of Smoking**

Ninety five percent of current smokers want to quit smoking

actually [19], but maximum people do not go to the doctors to do so, this is because they have a great addiction towards smoking. Over past many years, many people quit smoking without the help of doctors or clinics. This is due to the increasing influence of mass media in today's era of technology that people themselves are ready to do so. This mass media really plays an important role to make people quit smoking successfully. Also, mass media campaigns are very much beneficial in this regard as they make the existing smokers to quit smoking by realizing them regarding the bad effects of smoking. There are various places in which mass media played important role to aware people regarding negative effects of smoking at local or regional levels. They are:

**Table 1:** Various places having positive effect of mass media regarding awareness of negative effects of mass media.

Places	Reference
Baltimore, Maryland	[20]
Boston	[21]
Melbourne	[22]
Philadelphia	[23]
California	[24]

### 5.1 Case Study 1

In England, UK, the case of smoking is majorly taken into consideration as major deaths caused by the effects of smoking were reported. The ultimate aim of the various campaign with the help of mass media was to reduce the prevalence of smoking and hence the deaths caused by the harmful effects of smoking. Not only this as many people feel shy to directly approach the doctors to quit smoking, toll free no were available in England to guide and counsel the people regarding the quitting of this deadly addiction called smoking. Hence mass media tools proved to be helpful in this context in England [25].

### 6. Summary

There is a major role of mass media and its tools to change human health related behaviour. With the help of mass media, there has been a decline in the infant mortality rate. In Japan, IMR was increased in 1994 due to discontinuation of the influenza vaccine, at that time, mass media acted as a way to publicize the vaccine to reduce IMR. In case of Philippines, television, radio and newspaper helped to publicize the campaign which took into consideration the measles vaccine, with these vaccines, there was a substantial decrease in IMR as parents were aware to provide children with the vaccine. The other behavioural change is in the women as breast cancer is a major disease faced by them. Breast cancer is malignant and hence early detection is necessary. So in developed countries like Sweden, mostly women above age of 40 undergo mammography. This awareness was created by mass media only. Still this is applicable to developed countries and urban areas but with the help of mass media, this message can further be spread in rural areas as well. Not only this, awareness was created in Finland regarding the Cardio vascular diseases and the ways to prevent it with help of various campaigns.

In West Virginia, since 1980 people were aware regarding

good dietary habits due to print media technique so as to avoid diseases like diabetes, blood pressure and obesity. In Australia, television and news proved to be important so as to make awareness regarding the importance of being active and involving in physical activities, also the investment was increased in such a way that the infrastructure provided active lifestyle. In rural areas of some countries like Philippines and alpine regions of Switzerland, mass media tools like television and radio proved to be beneficial or the health of people, especially children. Awareness was created regarding immunization and vaccinations by mass media only which would have been difficult to tell in face to face communication. Also, smoking could be considered as the case which was highlighted by mass media globally in such a way that even the local campaign related to anti- smoking proved to be successful in places like Baltimore, Melbourne etc. In England toll free nos. were provided to people who wanted counseling regarding the quitting of smoking. Hence, in a nutshell it could be concluded that mass media and its tools have been proved to be helping hand so as to create human health related behavioural changes with the help of campaigns or any other tool for publicity.

### 7. Conclusion

In this review we have discussed the role of mass media to educate, guide and influence people so that they get the knowledge of good health and are also influenced in such a way that they make the changes within their behaviour. The mass media proved to be a helping hand in decreasing infant mortality rate and even female mortality rate which was continuously increasing since last two decades.

Not only this, after getting the information from the sources of mass media, now people try to live healthy and eat healthy and try to involve in various physical activities. Even the youth is now more aware regarding their well being and hence they try to abstain from the bad habits and other addictions. The media seem to hold the potential for profound influences on health at many levels of audience organization In a nutshell, It could be concluded that mass media act as a prominent and imperative tool to promote the health and to create a positive behavioural changes within humans.

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