

COMMUNICATION TO COMBAT HEALTH CRISES IN A CHANGING CLIMATE

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Introduction

Handling health crises today is a primary objective of all nations, especially after the pandemic that shook the world and highlighted the gaps that exist despite the presence of health infrastructure and a specially designed health communication structure. Redefining health communication and reworking on its elements has emerged as a significant tool for achieving public health objectives that includes both promotion and application of health policies. The individual and organizational change can go a long way in eliminating health disparities (Hinyard & Kreuter, 2006).

In this regard Health communication can be considered as the opportune applicability and the use of communication strategies to notify and influence choices people build around their health has become crucial. One of the major areas that are likely to be threatened by climate change is health and despite all pacts and concerns, ironically it is the third world countries which are going to be majorly impacted. Firstly as evidenced by the Nobel Prize awarded former US Vice President, Al Gore, and a team of UN experts under the chairmanship of Dr. Rajendra K. Pachauri (Director General, The Energy and Resources Institute, New Delhi) climate change is a significant and emerging threat to public health which has found a central position on the international agenda most recently (Majra & Gur, 2009)

Many areas, particularly mid- to high-latitude countries, have experienced increases in precipitation and there has been a general increase in the frequency of extreme rainfall. In some regions, such as parts of Asia and Africa, the frequency and intensity of droughts have increased in recent decades (Majra & Gur, 2009, pp 11)

Although low- and middle-income countries are responsible for only a small percentage of global greenhouse gas emissions, the adverse health effects associated with climate change will likely fall disproportionately on their populations. In all possibilities, global health disparities are likely to be exacerbated creating a lasting impact as a whole.

The relationship between climate and health is evidenced by the sudden rise in the number of patients enrolling for medical assistance after severe heat, rain and cold. Variation in climate temperature over a period of 100 years in India has been reported as 0.50°C. The IPCC has projected rise of about 40°C in temperature, increase or decrease in rainfall patterns and a rise in sea level up to 0.59 metres by the year 2100.

Quite noteworthy that there is already evidence of stress and air pollution going a level up. For instance the summer of 2010 was the hottest summer on record in India, with temperatures approaching 50°C (122°F); the effects were far-reaching, including hospitalization because of heatstroke, suffering of livestock, and severe drought in some regions that affected health as well as agriculture (Burke 2010)

To minimise the impact of such climate extremes, it requires developing a baseline understanding of the region specific demographic, social, and ecological determinants of health will be necessary. There have been ongoing adaptations for creating more effective public health responses to climate change impacts—especially for poor rural communities whose access to health care is extremely limited even in the current policy environment—. In designing public health responses, a number of factors must be considered include the population's age structure, socioeconomic profile, baseline prevalence of climate-sensitive diseases, public awareness of risk, the built environment (Bush, et al, 2010).

Health communication: Health communication is the study and use of communication strategies to notify and influence choices people build around their health. Health information technology includes digital tools and services used to enhance patients' self-care, assist in patient-provider communication, inform health behaviours and decisions, prevent health complications, and promote health equity (Community guide, 2018)

Health communication becomes more pertinent for study where data indicates that a hazard is not serious, yet the public is near panic, it can be used to calm people down; for this kind of situation, its goal is to provide reassurance. Health communication is also a part of risk communication is the act of conveying or transmitting information between parties about (a) levels of health or environmental risks; (b) the significance or meaning of health or environmental risks; or (c) decisions, actions, or policies aimed at managing or controlling health or environmental risks .

Digitalisation of health communication: Considering the length and breadth of the country a single communication tool with a common strategy for communication would be an impractical solution, so rather considering the demography, the cultural connotations, all has to be taken into account for strategising a common communication tool. Not just this, breaking down of the communication fitting into different cultural norms requires a steady understanding of the situation.

Although culture is widely accepted as a factor associated with health and behavior, it's role in public health practice and research to date has been more rhetorical than applied. For example, while terms like cultural sensitivity and cultural appropriateness are now standard in the phraseology of public health professionals, applicable definitions, measures, and explanatory models of culture and health which are amiss.

In a digital world, AI or artificial intelligence can play a critical role in spreading the message across. Artificial Intelligence involves in developing a computer- controlled robot, or a software that is designed to think intelligently, similar to that of human. AI is accomplished by studying how human brain thinks, their manner of thinking, decision making and problem solving. AI and health communication put together, makes way for mHealth apps. mHealth apps are crucial in the disease containment and management during pandemics and can support health systems in disease surveillance. There are several straightforward verbal strategies that can be used for promoting immediacy in Mhealth promotion programs like prevalence, risk assessment, case identification, contact tracing, and situation monitoring through digital health apps (Kreps & Neuhauser,2013).

Situational theory and the digital connect: The situational theory of publics that categorises public in the context of which they are aware of a problem and the extent to which they can do something about the problem (Moss, Mac Manus & Vercic,1997). The situational theory of publics informs public relations professionals how to divide publics into smaller groups based on three variables. These groups all have a different way they gather and process information about a topic. By dividing people into groups based on problem recognition, constraint recognition and level of involvement, public relations professionals will be more successful in developing tactics and delivering messages that will accomplish their objectives.

In this theory there are two dependent variables namely active and passive communication behaviour, also more commonly called information seeking and information processing (Grunig, 1989).

Monitoring Climate change and health impact is an important task which requires public health strategies and improved surveillance. In tropical countries like India, limited information is available both prospective and retrospective data at a local or national level to assess climate variability and disease outcome. WHO recent report has estimated that the global disease burden due to climate change caused spatial and temporal distribution to vector-borne diseases, heat related mortality, air pollution and water borne diseases. The process of climate change is gradual and detectable. There are many government and non-government organization monitor the health effects in recent years. The impact of climate change over health and the risk factors are difficult to detect early health effect on climate change. Research methods are required to established temperature-disease relationship between population in different geographical areas. Remote sensing and environmental monitoring is particularly useful to catalogue variables such as air pollution and heat exposure. But to establish a particular trend long term monitoring and analysis are required to conclude for the causal relationship between climate and health (Dutta, 2011).

During the past 40-odd years, James E. Grunig's situational theory of communication behavior has been developed, changed, empirically tested, and adjusted through new research, it seeks to explain why people communicate and when it is most likely that they communicate. The theory also uses communicational behavior segmentise the general public into smaller groups which are most likely to communicate about certain issues. Situational theory also predicts behavioral effects of communication, as well as attitudes describing the process in which a certain, previously unconnected, group of people develops into an activist group that, with its public opinion, influences the decisions of a certain organization (Grunig 1997).

Adding to situational theory another thing that needs to be kept in mind is that health communication that can be seen as risk communication in particular suffers from certain problems. According to Covelloe & Sandman (2001) there are few obstacles that challenge the risk communication in general.

The primary obstacle is that derives largely from the uncertainty, complexity, and incompleteness of environmental data.

The second obstacle is distrust or lack of coordination among risk management organizations;

The third obstacle is selective reporting by the news media.

Lastly, the fourth major obstacle to effective risk communication derives from the psychological and social factors that influence how people process information about risk.

Where do we add the situational theory here?

The situational theory of publics informs public relations professionals how to divide publics into smaller groups based on three variables. These groups all have a different way they gather and process information about a topic. By dividing people into groups based on problem recognition, constraint recognition and level of involvement, public relations professionals will be more successful in developing tactics and delivering messages that will accomplish their objectives.

In this theory there are two dependent variables. These variables are active and passive communication behavior. The two are also more commonly called information seeking and information processing (Grunig, 1989).

Information seeking public who venture out in search of information about any topic are classified as 'aware' or 'active' public.

Information processing describes people's way of dealing with information put out before them, who are aware or active public trying to understand information to the best of their ability.

Again Grunig (1989) divides the public's into four types.

- Non-publics are the most passive of the groups. This group is made up of people who are unaware or do not acknowledge certain situations.
- Latent publics are aware of a topic or issue but do not recognize it as a problem.
- Aware publics see a situation but do not participate in finding a solution.
- Active publics are the least passive. These people see a situation as a problem and are involved in finding the solution to it.

Solutions:

In case of health communication, there are few things that have to be kept in mind while delivering a news related to health communication, one has to understand the severity of the health risk. Firstly we have to identify and establish the time or the causality of relation that a health crisis has with that of climate.

The purpose of health crises is to create an environment whereby serious, yet the public is near panic, it can be used to calm people down; for this kind of situation, its goal is to provide reassurance. Health communication is also a part of risk communication is the act of conveying or transmitting information between parties about

- a) levels of health or environmental risks;
- b) the significance or meaning of health or environmental risks; or
- c) decisions, actions, or policies aimed at managing or controlling health or environmental risks

In order to understand the communication deficiencies of the audience, dividing people into groups based on certain parameters is a necessary measure and before the calculated approach, according to Rawlins (2006) certain factors need to be taken into account like:

Problem Recognition: First of all, it is essential for the people to identify that a problem exists. In this case the impact of climate on deepening health crises.

Constraint Recognition: The hurdle to communication of the problem is that the communication methods do not comply with the different attitudinal aspect of the audience at large.

Level of Involvement: Identify how involved the people are considering the types of publics.

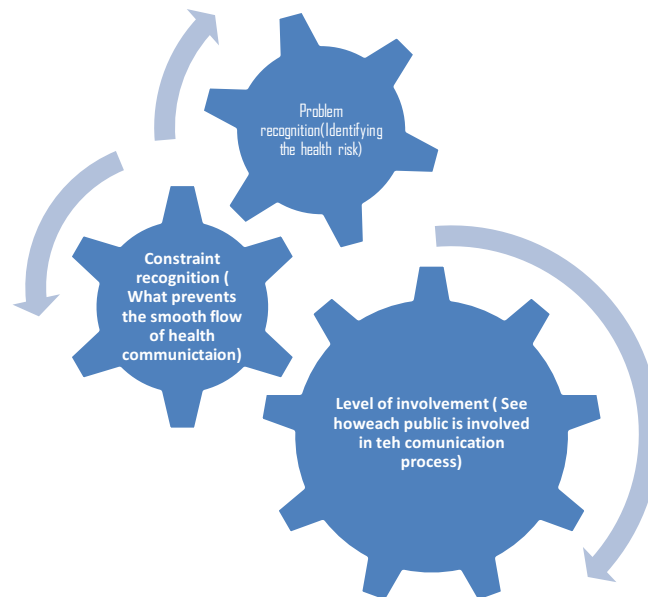


Fig: 1

Again considering the types of audience certain strategies can be developed

Non-publics are the most passive of the groups. This group is made up of people who are unaware or do not acknowledge certain situations.

Communication strategy adopted: For the Non-Publics a certain strategy of Social and behavioural change communication can be adopted. Here due to their difference a constant messaging and awareness technique can be adopted. This can include involvement of folk as well as new media. Digital media can be more effective that would enable interactive communication.

Latent publics are aware of a topic or issue but do not recognize it as a problem.

Communication strategy adopted: Like mentioned earlier in health communication, the problem needs to be identified and the intensity has to be realised when the health crises is not seriously taken. For this community communication or digital communication with factual data's need to be shared as the element of urgency needs to be created.

Aware publics see a situation but do not participate in finding a solution.

Communication strategy adopted: For this kind of public a second method of participatory method can be adopted whereby the publics would understand the existence and intensity of the health issue. This would involve both orientation and a process of digital application of the programmes.

Active publics are the least passive who see a situation as a problem and are involved in finding the solution to it.

Communication strategy adopted: Here the communication method to be adopted can be the trickle down method whereby the people can be involved in the message designing part also be involved in getting the engagement of the relevant

Adding digital innovation in health communication:

If we briefly sum up the overall situational theory as well as the model of communication, the primary thing that can be evaluated is that more customisation of communication strategies especially through digital communication can be considered and application of innovation in the digital apps especially taking into consideration the cultural background and non generalisation of the audience can lead to health and effective communication in the long run.

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