

Research Article

Promoting Social Distancing during Covid-19 outbreak-An application of Health Belief Model in the context of Assam, India

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A B S T R A C T

Social Distancing is one of the key preventive measures for reducing transmission of Covid-19 as recommended by WHO. During outbreaks of infectious disease, mass media plays a very critical role in Health Promotion and promoting healthy behaviour in the public for reducing transmission of the disease. Individual behaviour is dependent on the vulnerability of the individual towards the threat of the disease and there are modifying factors which affects the vulnerability. Decision making of individual behaviour change is very clearly explained by the Health Belief Model developed by Becker. The present qualitative study tries to understand the promotion of the concept of Social Distancing during the Covid-19 outbreak in Assam, India and tries to understand the individual behaviour change through application of the Health Belief Model. As described by WHO, outbreak of infectious disease needs special risk communication as outbreak communication and has a behavioural component into it. The concept of Social Distancing is a behavioural component for promotion of which behavioural change model like Health Belief Model will help in developing the communication strategy for promotion of long term Social Distancing behaviour through Mass Media.

Keywords: Communication, Covid-19, Health Belief Model, Health Promotion, Individual Behaviour, Mass Media, Social Distancing

Introduction

As of date, Covid-19 had spread all across the globe creating a global pandemic in human history next to World War II. Since its outbreak in last year, it has spread across all countries with an increasing infection in every nation. Each nation is struggling in slowing down the progress of the growing pandemic. (UNDP) India's first case of Covid-19 was reported on January 30, 2020 in Kerala. At present, Maharashtra is the worst affected state with most number of confirmed Covid-19 cases, followed by Tamil Nadu. (The

Economic Times, 2020) The first case of Covid-19 was detected in Assam on March 31, 2020. Within a span of 15 days (till April 14, 2020), the number of Covid-19 case detection in Assam has been increased to 31.

Researchers had found that, Covid-19 spreads mainly among people who are in close contact (within about 6 feet) for a prolonged period. Spread happens when an infected person coughs, sneezes, or talks, and droplets from their mouth or nose is dispersed into the air and land in the mouths or noses of people nearby. The droplets can also be inhaled

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into the lungs. Recent studies indicate that people who are infected but do not have symptoms are also likely to play a role in the spread of Covid-19. A person can also get Covid-19 by touching a surface or object that has the virus landed on it and then touching their own mouth, nose or eyes. (CDC, 2020).

World Health Organisation (WHO) and many other public health research institutions had recommended that limiting face-to-face contact with others i.e. Social Distancing, is the best way to reduce the spread of Covid-19. It means keeping space between oneself and other people outside home. It is one of the best tools, to avoid being exposed to this virus and slowing its spread locally, across the country and entire world. Social distancing is especially important for people who are at higher risk of getting very sick. It helps in limiting contacts with infected people and contaminated surfaces. Although the risk of severe illness may be different for everyone, anyone can get and spread Covid-19. Everyone has a role to play in slowing the spread and protecting themselves, their family and their community. (CDC, 2020)

Objective of the study: The paper is written during the lockdown period in Assam due to Covid-19 outbreak, restricting movement outside home. Therefore, the paper is based on qualitative analysis of online secondary sources of mass media. The study has following objectives:

- Analysing promotion of social distancing during the outbreak in Assam through Mass Media.
- Application of Health Belief Model in understanding promotion of Social Distancing behaviour.

The qualitative analysis was done during the Phase 1 lockdown period from March 2 April 14, 2020. Review of the news headlines of print media and electronic media was done to understand the promotion of the sole concept of Social Distancing.

Stages of transmission: Mass media had also published the stages of transmission of Covid-19 for increasing the awareness among the public about contracting the virus. Similar to other infectious diseases, Covid-19 has four stages of transmission :

- Stage 1 is the first appearance of the disease through people with a travel history. At this stage, with everyone confined and their sources traced, local transmission from those affected can be prevented. The number of infected is quite low at this stage.
- Stage 2 is local transmission, when those who were infected and have a travel history spread the virus to close friends or family. At this stage, every person who came in contact with the infected can be traced and isolated.
- Stage 3 is community transmission, when infections happen in public and a source for the virus cannot be

traced. At this stage, large geographical lockdowns become important as random members of the community start developing the disease.

- Stage 4 is when the disease actually becomes an epidemic in a country, such as it was in China, USA, Italy, etc. with large numbers of infections and a growing number of deaths. (The Print, 2020)

Communication of Social Distancing for prevention of Covid-19 transmission: Based on the experience of SARS outbreak during 2002, World Health Organization (WHO) had come up with the concept of 'Outbreak Communication'. In the meeting, convened by WHO held at Singapore, from 21 - 23 September 2004, to consider the role of public/ mass communications during disease outbreak. In the report of the meeting, it was raised that an outbreak has following unique features - urgent public health emergency, unpredictable, alarming for the public, socially & economically disruptive, strong political dimensions, spread has behavioural component and eminently newsworthy. (WHO, 2005). As brought forward by WHO, that an outbreak has a behavioural component, this paper, tries to understand the individual behaviour through an action of Health Belief Model in promoting individual response towards Social Distancing during current Covid-19 outbreak. In infectious disease outbreak like Covid-19, the social distancing is an individual centric behavioural approach, for reduction of the transmission. As an outbreak is newsworthy, hence Mass Media plays a very crucial role during outbreaks.

In public interest, communication is essential in fulfilling the public's need for information and education, or for promoting behavioural change and protective action, at the time of disaster such as outbreak of infectious disease. (Catalán-Matamoros, 2011) Communication is even at the forefront of the achievement of health promotion objectives during disease outbreaks. Methods of communication can be divided into five categories: intrapersonal, interpersonal, organizational, community and public/mass communication. (Corcoran, 2007). As outbreak is an urgent public health emergency, unpredictable and alarming for public, therefore, public/ mass communication is the widely used method for health promotion during the outbreak.

During covid-19 outbreak, Social Distancing is the initial objective of health practitioners and policy makers in health promotion that has been widely disseminated through Mass Communication. Since its outbreak towards the end of last year, there is a wide range of communication in different national and international Mass Media channels, regarding the outbreak of the virus. Among the steps for prevention of transmission of the virus, Social Distancing is one of the messages that have been widely disseminated in the health promotion communication messages through different kinds of Mass Media.

Table I. Few news headlines highlighting the wordings of Social Distancing during the study period

Thematic area	Date of publish	News Headline	Online source
Decision of policy makers on Social Distancing	Mar 12, 2020 · 07:37 pm	Coronavirus: Health ministry asks people to maintain social distance, says no need to panic	https://scroll.in/latest/
Experts views on Social Distancing	March 14, 2020 09:18 IST	Coronavirus Social distancing key to containing COVID-19, say experts	https://www.thehindu.com/sci-tech/health/
Importance on Social Distancing	March 15, 2020 10:28 am	Why social distancing is necessary to fight COVID- 19	https://www.sentinelassam.com/
	March 16, 2020, 2:16 PM IST	Coronavirus Pandemic: What is Social Distancing?	https://www.news18.com/news/india/
Enforcement of Social Distancing	Mar 17, 2020 07:46 AM IST	Coronavirus Outbreak Updates: Social distancing not enough, comprehensive approach required, says WHO chief Tedros Adhanom Ghebreyesus	https://www.firstpost.com/health/
	Mar 18, 2020, 10.51 AM IST	Covid-19: Assam instructs Deputy Commissioners to prevent mass gatherings	https://economictimes.indiatimes.com/news/politics-and-nation/
	March 18, 2020 12:23 IST	Coronavirus: Govt issues advisory on social distancing to contain outbreak	https://www.business-standard.com/article/current-affairs/
Challenges on enforcement of Social Distancing	Mar 18, 2020 03:07 IST	Why social distancing is tough to implement	https://www.hindustantimes.com/india-news/
Clarity on Social Distancing	March 19, 2020 18:34 IST	Unsure what herd immunity or social distancing is? Here's a coronavirus dictionary	https://www.thehindu.com/sci-tech/health/
	March 19, 2020 09:20 IST	Social Distancing: If coronavirus pandemic persists, our contemporary ideas of liberty and equality may come under threat	https://www.firstpost.com
Controversies related to Social Distancing	March 20, 2020	If PM wants social distancing, why Parliament working, asks Shiv Sena	http://www.assamtribune.com/scripts/mdetails.asp?id=mar2020/at049
Enforcement of Social Distancing	March 20, 2020 12:06:57 PM IST	CMs urged to implement social distancing	https://www.nagalandpost.com/cms-urged-to-implement-social-distancing/213361.html
	Mar 21, 2020, 01.12 PM IST	Covid -19: Assam invokes Epidemic Act	https://economictimes.indiatimes.com/news/politics-and-nation/
Clarity on Social Distancing	Mar 21, 2020	Things to do while Social Distancing	https://www.pratidintime.com/
Enforcement of Social Distancing	Mar 21, 2020, 9:13PM	Union Govt urges people to practice social distancing during Janata Curfew tomorrow	http://newsonair.com/
	March 22, 2020 12:32 pm	Ensure social distancing over COVID threat, Health Minister tells district administration	https://www.sentinelassam.com/north-east-india-news/assam-news/
	March 22, 2020 1:45 am	Maintain social distance to prevent spread of coronavirus: Assam health minister	https://nenow.in/health/

Public response to Social Distancing	March 22, 2020 11:40:26 AM	Janata Curfew: India observes mass social distancing in fight against Coronavirus	https://www.financialexpress.com/india-news/
	March 22, 2020; 9:28 PM	Processions, crackers as thanks giving gesture in Assam	http://www.uniindia.com/
	Mar 23, 2020	Guwahati Social Distancing? City Shops, Markets Remain Open	https://www.pratidintime.com/
	March 23, 2020 1:13 am	Assam's BJP MLA fails to maintain social distance during 'Janta Curfew'	https://nenow.in/north-east-news/assam/
Enforcement of Social Distancing	March 24, 2020	COVID-19 can be Reduced by 75% via Social Distancing & Hand Washing: Assam Health Minister	https://insidene.com/2020/03/24/
	March 24, 2020, 10:08 PM IST	Stress on Social Distancing, 21-day Lockdown to Combat Coronavirus: Read PM Modi's Full Speech Here	https://www.news18.com/news/india/
	March 25, 2020 19:23 IST	PM Modi reiterates need for social distancing as India's coronavirus cases cross 600	https://www.theweek.in/news/india/2020/03/25/
Public response to Social Distancing	Mar 25, 2020	Social Distancing? Creative idea for Pharmacies and Groceries	https://www.pratidintime.com/
	Mar 27, 2020 23:38 PM IST	Coronavirus Outbreak: Assam ignores social distancing as districts open shops; residents crowd marketplaces to buy meat, fish and vegetables	https://www.firstpost.com/health/ https://realtime.rediff.com/news/india/
	27th March 2020 06:45 PM	COVID-19: Defying social distancing norms, people assemble to buy essentials in Assam	https://www.newindianexpress.com/nation/2020/mar/27/
	March 27, 2020 9:58 am	Assam lockdown: Social distancing seems to be a joke for a section of people in Guwahati	https://www.sentinelassam.com/guwahati-city/ https://www.nyooz.com/news/guwahati/1437596/
Enforcement of Social Distancing	March 27, 2020 9:00 am	Follow social distancing and lockdown guidelines seriously: All Assam Students Union	https://www.sentinelassam.com/top-headlines/
	March 28, 2020 01:38 IST	Curb relaxation nixes social distancing in Assam	https://www.thehindu.com/news/national/other-states/
	28.03.20, 2:04 AM	Stars speak up for social distancing	https://www.telegraphindia.com/states/north-east/
Public response to Social Distancing	March 28, 2020 18:18 IST	Assam cops attacked for enforcing COVID-19 lockdown	https://www.thehindu.com/news/national/
	March 31, 2020	Assam: Bodofa's 64th Birth Anniversary Observed with Social Distancing Guidelines	https://insidene.com/2020/03/31/
	March 31, 2020, 16:59 hrs	Guwahati based Entrepreneurs create App to encourage Social Distancing	https://www.guwahatiplus.com
Enforcement of Social Distancing	April 1, 2020	No relaxation of lockdown norms in Assam: Sonowal	https://www.thehillstimes.in/regional/

Public response to Social Distancing	April 2, 2020	Some people not adhering to social distancing norm	http://www.assamtribune.com/
	3.04.20, 2:23 AM	Social distancing goes for a toss in Kokarajhar	https://www.telegraphindia.com/states/north-east/
Enforcement of Social Distancing	April 3, 2020	Don't cross 'Lakshman Rekha' of social distancing: PM Modi urges countrymen	https://www.newslivetv.com/india/
	April 7, 2020 1:43 pm	Religious leaders urged DC Pallav Gopal Jha to create awareness about social distancing	https://www.sentinelassam.com/north-east-india-news/assam-news/
Public response to Social Distancing	April 7, 2020	Social distancing goes for a toss in Guwahati, thousands gather to appear for NHM interview	https://ttvindia.com/
	April 9, 2020 8:08 am	Social distancing in Assam Glaring violations!	https://www.sentinelassam.com/top-headlines/
	April 9, 2020 2:27:51 AM	Coronavirus in India: Social distancing still virtually absent	https://www.financialexpress.com/opinion/
	April 11, 2020, 08:44 PM IST	Plucking resumes in Assam's tea estates, workers follow social distancing norms	https://economictimes.indiatimes.com/news/politics-and-nation/
	April 12	Social Distancing norms thrown to the wind at fish outlet	https://www.assamtribune.com
	April 13, 2020 6:22 pm	Assam: Tea gardens in Jorhat reopen; workers follow social distancing	https://www.ddnews.gov.in
Enforcement of Social Distancing	April 13, 2020, 18:23 hrs	LGBI Airport takes preparedness Measures for Social Distancing, Marks Departure Area	https://www.guwahatipuls.com
Public response to Social Distancing	April 13, 2020	Social Distancing in front of city's wine shop	https://www.janambhumi.in
	April 13, 2020, 13:42 IST	Coronavirus outbreak: People follow Social Distancing as Assam Government permits sale of liquor	https://www.mid-day.com
	April 13, 2020, 13:42 IST	People follow Social Distancing norms while queuing outside liquor shops in Assam	https://www.newslivetv.com

Promotion of Social Distancing in Assam: An analysis of various online sources of news article on Social Distancing with special focus to Assam, it has been found that, there are evidences of highlighting the concept of Social Distancing among the public through national and local newspapers from March 12- April 14, 2020. As a part of individual's decision making on Social Distancing, the Prime Minister of India had called for People's Curfew (Janata Curfew) on March 22, 2020, which has also been observed in Assam from 5 am to 9 pm. (Economic Times, 2020) This was further extended to 8 am of March 23, 2020 in Assam on the decision of Assam Police. (The Sentinel, 2020) (The Times of India, 2020) However, there are instances in Assam regarding violation for Social Distancing during Janata Curfew such as coming out to streets for possession,

bursting of crackers, etc. (UNI India, 2020) Further, in order to enforce Social Distancing in the country, the nation-wide lockdown was announced on March 23, 2020 by Prime Minister Narendra Modi, to reduce the spread of Covid-19. Thus, Prime Minister Narendra Modi, on March 24, 2020; announced a 21-day complete lockdown to fight the outbreak. (The Economic Times, 2020). The first phase of lockdown was for 21 days (3 weeks) with effect from March 25 to April 14, 2020. The second phase of lockdown has been extended by Prime Minister on April 14, 2020 with effect from April 15 to May 3, 2020.

Analysis of the online news sources, it was found that, the concept of social distancing was focused in news headlines of print media from March 12, 2020 onwards. Even, leading

personalities of various fields such as political leaders, public health professionals, religious leaders, victims, celebrities, etc. had also pleaded the public through Mass Media for maintaining the Social Distancing. There are also photographic news bringing to the forefront of the public about the measures taken for maintaining Social Distancing in different places such as markets, groceries, shops, etc. Even, Government of India and Government of Assam had issued advisory for Social Distancing. An analysis of the news headlines in the online sources of print media, it was found that, initially, mass media focused on the decision of the policy makers, views of the experts and importance of Social Distancing. Gradually, it reflected that news related to enforcement of Social Distancing and response of public to Social Distancing came up more often in the news headlines of media. During the lockdown period, more violation of lockdown is focused in the mass media rather than violation of Social Distancing norms. This has chances of understanding the importance of Social Distancing rather than the lockdown measure taken by the Government for enforcement of Social Distancing. More focus is given on the breaking of lockdown process rather than the output of lockdown which is adaptation to Social Distancing.

However, in electronic media, there are multiple news broadcast related to Social Distancing. There are experiences sharing, panel discussion, international updates, voices of

people, factual videos of incidents related to violation of Social Distancing, etc. On the other hand, in social media there are multiple videos on the grassroot level incidents related to violation of Social Distancing across the globe, views of the public about Social Distancing, etc. However, the objective of the electronic media and social media differs from the print media. Electronic media and social media focuses more on the viewership. Thus, for increasing viewership these media aims to telecast more entertaining news articles for attracting viewership.

Individual Behaviour for Social Distancing: The Population Reference Bureau (2005) in the US suggests that human behaviour is the central factor in most leading causes of mortality and morbidity. They advocate that behaviour change strategies should be at the forefront of any attempts to reduce mortality and morbidity. (Corcoran, 2007) The containment and treatment of infectious diseases like Covid-19 are highly dependent on individual decision-making. (Baggio, 2020).

Several literatures have shown that, there are well-documented relationship between lifestyle, disease transmission of infectious disease like Covid-19 and increasing healthcare costs. Therefore, it is economical and medically sensible to hold individuals morally responsible for their health related actions such as Social Distancing to reduce transmission of infectious disease. Although

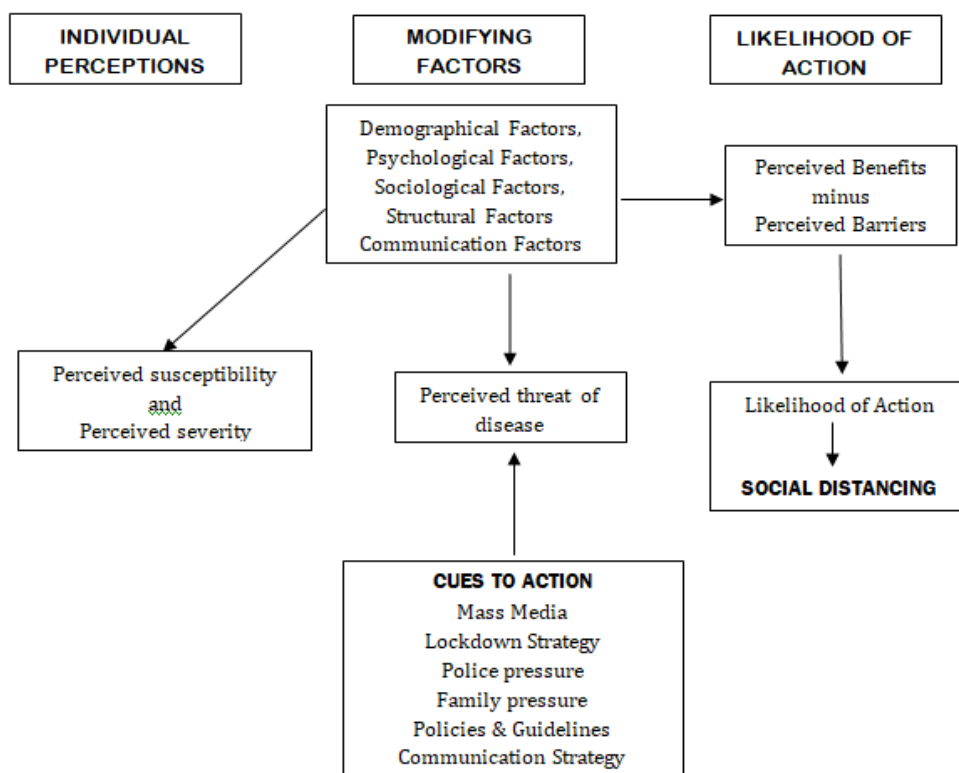


Figure 1. Health Belief Model modified for Social Distancing Behaviour (Corcoran, 2007)

individuals should play an important role in maintaining their own health through Social Distancing, however, they should not be held entirely responsible for it. Assuming that responsibility for health rests either with individuals or with society, it follows that society should also help to promote healthy behaviour and prevent disease transmission. Even, assuming that society is partly responsible for the health of its members, but, in resource scarce situations, individuals of a society can take responsibility for health of the society through Social Distancing behaviour. (Resnik, 2007).

One of the model of individual behavioural change is the Health Belief Model (HBM), developed in the early 1950s by social scientists at the U.S. Public Health Service in order to understand the failure of people to adopt disease prevention strategies. The HBM was derived from psychological and behavioral theory focussing on two components of health-related behavior - the desire to avoid illness and the belief that a specific health action will prevent illness. (LaMorte, 2019).

Becker (1974) developed the Health Belief Model (HBM) from the work of Rosenstock (1966). This model can be used as a pattern to evaluate or influence individual behavioural change. In case of Covid-19 outbreak, one of the individual behaviour change is Social Distancing. In relation to Social Distancing, the model can be used to predict a person's behaviour to Social Distancing based on how vulnerable the individual considers himself/herself to be. In context to Social Distancing, HBM can be applied for understanding the 'Vulnerability' of the person through risk of not maintaining Social Distancing (perceived susceptibility) and the seriousness of its consequences (perceived severity). These two vulnerability variables need to be considered by an individual before a decision can take place in regard to Social Distancing i.e. a person has to weigh up the costs/benefits or pros/cons of performing Social Distancing. Thus, a person's decision to perform the health-promoting (or damaging) behaviour i.e. either maintaining Social Distance or not maintaining Social Distance will be based on the outcome of this 'weighing up' process. (Corcoran, 2007).

Thus, HBM suggests that a person's belief in a personal threat of Covid-19 together with a person's belief in the effectiveness of Social Distancing behaviour will predict the likelihood that the person will adopt the behavior of Social Distancing. According to HBM, an individual's course of action to Social Distancing often depends on the person's perceptions of the benefits and barriers related to Social Distancing. The HBM has following key constructs, that can be put into action in relation to Covid-19 as follows -

Perceived susceptibility - This refers to a person's subjective perception of the risk of acquiring Covid-19 infection.

Perceived severity - This refers to a person's feelings on

the seriousness of contracting Covid-19 infection. There is wide variation in a person's feelings of severity and often a person considers the medical consequences (e.g., death, recovery, isolation, quarantine, etc) and social consequences (e.g., family life, social relationships, social insecurity, family transmission, etc.) when evaluating the severity.

Perceived benefits - This refers to a person's perception of the effectiveness of Social Distancing to reduce the transmission of Covid-19 infection. The course of action, a person takes, in maintaining Social Distancing relies on consideration and evaluation of both perceived susceptibility and perceived benefit, such that the person would accept the recommended health action (Social Distancing) if it was perceived as beneficial.

Perceived barriers - This refers to a person's feelings on the obstacles during maintenance of Social Distancing. There is wide variation in a person's feelings of barriers, or impediments, which lead to a cost/benefit analysis. The person weighs the effectiveness of the Social Distancing against the perceptions.

Cues to action - This is the stimulus needed to trigger the decision-making process to accept Social Distancing for reducing the transmission of Covid-19. These cues can be internal (e.g., social responsibility, accountability, individual decision, etc.) or external (e.g., mass media, political enforcement, strict law and order, etc.).

Another construct that was added to the model in mid-1980 was Self-efficacy. (LaMorte, 2019) It was added to the HBM to enable prediction of behaviour. It is a person's perceived confidence of their ability to perform Social Distancing. (Corcoran, 2007) Therefore, the HBM describes, that for promoting individual decision making for Social Distancing behaviour, communications to be made during outbreak of Covid-19, needs to take into consideration following points while designing the preventive messages.

- The 'incentive' that the person will receive for Social Distancing behaviour, which will prevent his exposure to the Covid-19 infected asymptomatic persons.
- Promoting the feeling that there is a 'risk' of not maintaining Social Distancing like self contracting of Covid-19 and co-transmission of the virus to other family members as well as loved ones and creating risk for the family at the micro level and the community at macro level.
- Promote believe on the person that Social Distancing will have 'benefits', and these need to outweigh the 'barriers' for not adhering to it.
- Build 'confidence' (self-efficacy) on the person, to make the change to their behaviour and accordingly adhere Social Distancing and keep themselves, their loved ones and their family safe and protected.

Cues to Action for Social Distancing: The HBM additionally suggests that there is a 'cue to action' to prompt the behaviour change process. In case of Social Distancing during Covid-19 following can be regarded as external cues to action:

- **Mass Media:** Continued exposure to Social Distancing messages through electronic and print media can help in reinforcing individual decision making and improving self efficacy for Social Distancing. Mass Media can promote positive actions through focusing on the benefits of Social Distancing, consequences of not maintaining Social Distancing, sharing of experiences from other nations the consequences of not maintaining Social Distancing, clear understanding of the concept of Social Distancing in the language understandable by various social groups and communities and sharing the ways for maintaining Social Distancing under various circumstances and by various age groups for improving self efficacy of the person. However, mass media can also promote negative actions by a person during outbreaks for which mass media should be vigilant enough. Understanding the communication depends upon how one understands it rather than how mass media tries to promote understanding. This is quite challenging during outbreaks, as it may boomerang and might collapse all the efforts of outbreak management taken by the Government.
- **Police pressure:** There are a number of modifying factors that have impact on Social Distancing. Strict and immediate punishments by police, to public violating Social Distancing and sharing these in the Mass Media for making the people understand the consequences of violating it would help in reinforcement of Social Distancing.
- **Policies and guidelines:** At the very beginning and for continued enforcement of strict Social Distancing, strong policies and guidelines are required. Moreover, strict action needs to be taken for violation of the policies and guidelines. There should be a widely informed grievance redressal mechanism for addressing the public grievances during enforcement of the policies and guidelines. CPGRAMS (Centralized Public Grievance Redress and Monitoring System) of Department of Administrative Reforms & Public Grievances, Government of India should be made effectively functional during the outbreak so that the grievances can be centralized and Government can take strategic actions. This would also build self efficacy of the individuals on the public policies and guidelines during the outbreak. Policies and guidelines also provide restrictions of activities in the society and closure of social institutions which might create situations for violating Social Distancing.
- **Family pressure:** Family pressure and peer pressure is also required in maintaining Social Distancing. Unnecessary movement outside house, in public areas, shops, etc. can be reduced through family pressure and peer pressure. In rural areas, of Assam, this seems to be very effective in reducing social gathering in public places, religious places, markets, distribution centres of essential services, etc.
- **Lockdown Strategy:** Experts views from the outbreak of Spanish Flu in 1918, it was recommended in various literatures, that, in a diversified, highly populated, resource constraint settings like India, time to time lockdown strategy will be required to be in place for curbing the transmission of Covid-19. This lockdown strategy would reinforce the need for long term Social Distancing.
- **Communication Strategy:** As described in the Outbreak Communication of WHO, a well defined communication plan is very critical. The communication strategy should be diversified encompassing, the strategy for prevention of disease transmission, awareness about increased case load, policies and guidelines, grievance redressal mechanism, distribution plan for food supplies, support for the poor and needy population, awareness in local dialects, promotion of healthy individual behaviour like Hand washing & Social Distancing, list of service providers, dissemination plan of the informations, selected method of dissemination, etc. The communication plan should be dynamic and fit to the local context. A well developed plan for distribution of essential supplies is required to be disseminated to reduce public gatherings and promote Social Distancing. For increasing self-efficacy of the individual for maintaining Social Distancing, messages to be linked in accordance to the HBM. Communication messages should have clear visibility of the preventive measures concept like Social Distancing for reinforcement of individual behaviour. The strategy should also include the mechanism for making the messages available to highly vulnerable populations with no access to Mass Media.

Modifying factors for Social Distancing: The HBM also considers 'modifying factors' important to individual behaviour change. These include demographic variables, socio-psychological variables and structural variables that influence how a person perceives the disease severity, threats and susceptibility. Factors such as age, gender, peer pressure or prior contact with the disease also impact on the individual decision-making process. (Corcoran, 2007)

Risk Communication and HBM: Although the news media does not specifically tell public what to think, it plays an important role in identifying what issues public should think about during the outbreak of Covid-19. (National

Academy of Sciences, 2002) Poor communication through mass media, could intensify the spread of the disease and affect decision making of the individual for healthy social behaviour as well as loss of trust in the government's ability to protect the nation in the future. Failure to communicate well to the public about the healthy social distancing behaviour may lead to the perception that the government is unable to respond to the outbreak of Covid-19.

During Covid-19 outbreak, risk communication should be done with the goal of helping people become informed about a potential risk so that they can make appropriate decisions to protect their health, understand social distancing behaviour and potentially assist in adhering

Social Distancing behaviour to address the risk. Good risk communication for promoting Social Distancing behaviour should take into modifying factors, cues to action and risk perception and tailor messages to ensure that people are informed about Social Distancing and given concrete steps to protect themselves from Covid-19. (Sell, 2017) Fiction is a powerful tool that can be used in risk communication because it places information in an emotional context that people remember and its message has lasting influence. (Abrutyn, 1998).

Conclusion: Social Distancing is very crucial long term behavioural change that needs to be focused as a part of health promotion during Covid-19 outbreak. As predicted

Table 2. Modifying factors in context of Assam

Demographical Factors	1. People of age group less than 65 years feels themselves less susceptible especially adolescent group, however, can be the carrier of the virus. 2. People having chronic disease like heart or lung disease, diabetes, asthma, pregnant women, etc. are the groups at higher risk for severe illness. These group of population need continued medication for which they struggle to obtain the medication during crisis. 3. People experiencing homelessness especially urban poors, slum pockets, high density residential pockets, street dwellers, etc. do not have the infrastructural privilege of maintaining social distancing in urban areas, cities, big towns, commercial places, etc. 4. Recurrent flood during monsoon from tentatively April – September and disease outbreak – malaria, dengue, japanese encephalitis, diarrhea, etc. forces people to get the relief materials, medicine supply and logistic supplies such as mosquito nets. 5. Time consuming and need lots of patience for adherence to Social Distancing. 6. Way of living such as cultural context, food habits, family patterns, livelihood options, etc.
Psychological Factors	1. Stress, anxiety, depression, negative feelings, loneliness, burnout, panic, fear, overconfidence, etc. 2. Might give rise to sense of suspiciousness for others of being infected that might lead to fear of facing stigma and discrimination. 3. Not considering oneself as vulnerable to the infection 4. Having no travel history or self assumption of not having contacts with people having travel history or with symptomatic population 5. Fear of being identified and send for isolation or quarantine. 6. Fear of being dissociated and disconnected from the family members and loved ones. 7. Fear of facing communal discrimination, social exclusion and conflicts especially among minorities and vulnerable population. 8. Sense of showing disrespect towards family members, loved ones, elderly and society as per the cultural norms. 9. Frequent distraction due to growing stress with increasing new infections and deaths. 10. More attention to other survival issues such as obtaining essential supplies, medicines, etc. which might create psychological distraction from the concept of Social Distancing. 11. Fear of experiencing family members striving in hunger and sufferings from disease. 12. Trust of the community on the messages related to Social Distancing for improving self-efficacy of the individual. 13. Absence of guidance for showing the way for maintaining social distancing under stressful and difficult situations like densely populated areas, limited spaces, financial constraints, natural disasters, etc. 14. Feeling that a limited contact will not expose the person to virus.

Sociological Factors,	1. Absence of financial earning forcing people to take any option of livelihood earning mostly domestic worker, sex worker, daily wage earners, etc. 2. Hunger due to lack of food supplies and absence of financial earning. 3. Migration- Interstate, intrastate, 4. Social conflict, social power, leadership, dominance, power role play in villages. 5. Inter-social contacts for trade of essential supplies. 6. Poverty, 7. Gender inequality and gender norms with more household responsibilities on women having very limited time for adhering to Social Distancing. 8. Social exclusion 9. Increased competition for essential supplies. 10. High population density and closed societies. 11. Joint family concept with elderly and relatives living together in a house or close by. 12. Search for availability of fresh food supplies like fresh fruits, vegetables, fish and meat. 13. Seeking to grab maximum opportunities of distribution of food supplies, 14. High food prices encouraging people to hunt for low priced food, 15. Absence of space and scope for addressing burn outs. 16. Social gathering in densely populated areas for discussing the updates of the epidemic and sharing of personal feelings. 17. Lack of socially responsive behaviours under the influence of intoxication. 18. Diverse social needs of different social groups such as adolescents, young children, elderly people, women, etc.
Structural Factors	1. Urbanization, 2. Unplanned infrastructural development, 3. Overcrowding and absence of adequate space for maintaining social distancing. 4. Slum pockets 5. Small houses and large family size with older people. 6. Densely residential areas/ densely populated areas 7. Close proximity of commercial shops with residences 8. Dependency on public transport or travel to essential services location by walking in groups to overcome the feeling of tiredness of the journey. 9. Access to Mass Media and having access to correct messages on Social Distancing. 10. Number of families living within a residential campus as renting of house is one of the prominent and leading livelihood option in urban areas. 11. Small land plot of land owned for building houses. No option of open space and providing rented house even in that small plot of land. 12. Residential flats in urban areas with small individual flats. 13. Prolific increase of mass media portals and sharing of diverse media messages affecting the perceived susceptibility and severity of disease by a person.

by the researchers and scientists, that, Covid-19 pandemic is likely to persist for a longer period of time, being a novel viral outbreak. Therefore, individual behavioural change will be very critical for a long term prevention of the viral outbreak. As Mass Media is an important tool for promotion of healthy behaviour in the community during outbreaks, so, so mass media to play a very specific role during the outbreak. Unlike generic communication, mass media should focus on outbreak communication as long as Covid-19 pandemic persists. Similar to the lead role played by Ministry of Health and Family Welfare and Ministry of Home Affairs during the Covid-19 outbreak, Ministry of Communication and Information Technology should also

take the lead role as Centralized Nodal Agency in outbreak communication, for screening of mass media messages for curbing potential negative mass communication during outbreaks. This would help in having control on the diverse communications made in different media especially electronic media and social media to prevent the negative impact on the strategies taken by the Government of India to reduce the transmission of Covid-19. Special communication policies need to be designed for the Mass Media for the greater benefit of the nation during the outbreak as the masses completely depend on the Mass media during the crisis for decision making. Although the news media does not specifically tell the public what to

think, it plays an important role in identifying what issues public should think about. However, the understanding of the public varies among diverse population group, cultural differences, literacy level, regional context, etc and this is quite challenging in a diversified nation like India with lingual diversities. Risk communication should be designed focusing the vulnerability factors in relation to perceived susceptibility and perceived severity of Social Distancing in relation to Covid-19 outbreak.

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