**Title: COVID-19 pandemic and role of Behaviour Change Communication**

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**Abstract**

Since the onset of the COVID-19 pandemic, various public health interventions have been employed due to the lack of an effective vaccine or treatment against the disease. In spite of various global and national initiatives, there is still a lack of compliance among the general public. Hence, there is a need for Behaviour Change Communication for not only individuals but also the communities in order to effectively combat the disease spread.

This article attempts to address the issues in implementing public health measures and the role of Behaviour Change Communication in controlling the pandemic situation.

**Keywords**: COVID-19, Social and Behaviour Change, public health intervention

**Introduction**

The world was struck by the COVID-19 pandemic at the beginning of the year 2020 that resulted in enormous and varied impact across multiple aspects of human life. It is a disease known to be similar to the SARS and Influenza pandemics but still unfamiliar in its origin, pathology and implications. The new pandemic exposed populations across countries to psychological distress, fatigue, burnout, fear and stigma which due to lack of a specific vaccine needs a rapid and extensive behaviour change communication strategy in order to establish desirable protective behaviours.(1)

The Ottawa Charter for Health Promotion launched the idea of Health Promotion in response to the growing need for a global public health movement.(2) Health Promotion, defined as the process of enabling people to increase control over and to improve their health, comprises of three key elements: good governance for health, health literacy, and healthy cities.(3) Also, risk communication can go hand-in-hand with BCC as it enables people at risk to take informed decisions for self-protection and protection of loved ones.(4)

**Behaviour Change Communication**

Behaviour change communication (BCC) is defined as ‘An **interactive process with communities** (as integrated with an overall program) to develop **tailored messages and approaches** using a variety of communication channels to **develop positive behaviors**; **promote and sustain** individual, community and societal **behavior change**; and maintain appropriate behaviors.’(5) The stages in BCC process are: a. Unaware or the stage of [[‘‘precontemplation’- where the person is unaware of the existing problem; b. Aware or stage of contemplation where a person if aware of the problem and of the desired behaviour change; c. Concerned; d. Knowledgeable, e. Motivated to change, f. Practising trial behaviour change or the stage of ‘action’, followed by practising sustained behaviour change or the stage of ‘maintenance’.(6) This is similar to the Transtheoretical model of behaviour change which states that individuals move through six stages of change of health-related behaviours i.e. precontemplation, contemplation, preparation, action, maintenance and termination.(7)

Taking into consideration the strategies for conducting BCC, the following criteria need to be kept in mind for BCC messages: a. Research centered, b. Client centered, c. Benefit learning, d. Service inter-related, e. Professionally developed & interrelated to behaviour change.(8) There are various methods of Behaviour change communication- a. posters, pamphlets, brochures; b. mass media, videos; c. stories, short movies, street plays; d. social & professional discussions; e. peer groups, which can be utilised according to the purpose & need of the programme.(9)

While Behaviour Change Communication focusses on an individual as the locus, there was a need to focus on communities or population as a whole. This led to the concept of Social and Behaviour Change Communication (SBCC) where the focus is on ‘community’ as a unit of change so as to influence both individual and societal changes. It is a more comprehensive approach which also involves the process of transforming distribution of power within social and political institutions. SBCC itself has evolved from the earlier linear ‘expert-learner’ or ‘sender-receiver’ models to an analysis of behaviours and their determinants to affect changes in knowledge, attitudes and practices of populations. The SBCC framework uses the strategies of advocacy, and community mobilization along with behaviour change communication to strengthen the social context, systems and processes supporting health using research-based consultative process to promote and facilitate behaviour change.(9)(10)

The problem in implementation of behaviour change communication lies in the lack of understanding of behaviour of the people. Hand washing, wearing face mask and social or physical distancing are all norm of human behaviours. The health educators, promoters, policy makers possess the core competencies to change the health-related human behaviour. To enable the people to control over their health and its determinants is key in health promotion.

**Behaviour Change Communication during COVID-19**

Behaviour change communication strategies are based on various Behaviour Change Models such as: a. The Health Belief Model, b. The Theory of planned behaviour, c. Diffusion of Innovation theory, d. Social cognitive theory, and e. The Social Norms theory besides the aforementioned Transtheoretical model. The Health Belief model, which was developed to understand the failure of people to adopt disease prevention strategies, suggests that a person’s belief in their vulnerability to a disease or illness along with their belief in the benefit from an intervention determines the likelihood of their adopting certain health behaviour. The Health Belief model, while one hand, can be used to plan BCC strategies based on its constructs of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cue to action, and self-efficacy; on the other hand, its various limitations need to be rectified by the use of other models of behaviour change.(11) Though multiple models or theories might be used for an SBCC intervention, some influencing factors might still be missed e.g. the Theory of Planned Behaviour and Health Belief Model do not address the natural human behaviours like impulsivity, habit, self-control, associative learning and emotional processing.(12) Hence, before carrying out any behaviour change intervention, a diligent research on human behaviour, needs of the audience and nature of the problem, resource availability, etc. is needed.

An article addressed this problem and found that selection and social influence mechanisms coexist by affecting each citizen’s health related behaviours and community-led risk discourses in the face of the urgent health crisis. The behaviour of citizen’s making them capable of voluntarily adopting more health preventive measures signal the severity of current health emergency to rest of the community members thereby helping in creating social norms for preventive public health measures.(13)

With regards to application of behavioural theories and models in case of disaster and emergency preparedness, most of the existing evidence is available from developed countries which might not be generalisable to the Asian countries. The Health Belief Model, Theory of Planned Behaviour and Social Cognitive theories were most commonly applied to influenza (H1N1 and H5N1), floods, and earthquake disasters with most studies conducted in the USA. Few studies were identified from Asia, which comprises greater number of annual disasters and victims than that of other continents.(14)

In India, the Central Government resorted to clever tactics like roping in popular actors like Amitabh Bachchan and integrating BCC messages as caller tunes to promote appropriate preventive behaviours in regard to COVID-19 among the public in addition to the conventional television and radio campaigns.(15)

**Evidence-based Behaviour Change Communication**

While there are studies available on hand-hygiene and handwashing in certain settings, most of them are not generalizable to community settings.(16)(17)(18) Also, there were no studies available on effectiveness of behaviour change communication for protective measures against COVID-19 though some literature on application of behaviour change communication was found. Behaviour change models like COM-B i.e. Capability, Opportunity, Motivation- Behaviour Model can be utilized to bring about behaviour change specific to high-risk behaviours. For every behaviour change, an individual needs the capability, necessary opportunity and be motivated to take appropriate action for behaviour change.(19)

**The way forward**

The strength of the Indian public health system lies in its accessibility, reach to most of the Indian population and community involvement in the form of grassroot level health workers. Using the ‘One Health’ approach, which is a way to design and implement programs, policies, legislation and research with multi-sectoral coordination, is an essential approach to ensure better outcomes of these behaviour change campaigns.(20) Community healthcare workers like ASHA, Anganwadi workers, Health worker Male and Female are already involved in the regular field activities and surveys for COVID-19 such as the ILI (Influenza-like Illness) survey and Rapid Response Team visits to those under home-isolation. These routine COVID-19 related activities can be used as the opportunity to carry out SBCC programs designed according to the particular community needs. However, this calls for a meticulous training of healthcare workers along with Training of Trainers (TOT) to enable these HCWs in imparting Social and Behaviour Change Communication for the greater benefit.

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**References:**

1. Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implement Sci. 2011 Apr 23;6(1).

2. Fuchs A. Ottawa Charter | SpringerLink [Internet]. Encyclopedia of Public Health. 2008 [cited 2020 Nov 4]. Available from: https://link.springer.com/referenceworkentry/10.1007%2F978-1-4020-5614-7\_2475

3. Health promotion [Internet]. [cited 2020 Nov 4]. Available from: https://www.who.int/health-topics/health-promotion#tab=tab\_1

4. Risk communications [Internet]. World Health Organization. [cited 2020 Nov 4]. Available from: https://www.who.int/emergencies/risk-communications

5. (No Title) [Internet]. [cited 2020 Nov 4]. Available from: https://www.hivpolicy.org/Library/HPP000533.pdf

6. Slowing down the covid-19 outbreak: changing behaviour by understanding it - The BMJ [Internet]. [cited 2020 Nov 4]. Available from: https://blogs.bmj.com/bmj/2020/03/11/slowing-down-the-covid-19-outbreak-changing-behaviour-by-understanding-it/

7. Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. Am J Heal Promot [Internet]. 1997 [cited 2020 Nov 4];12(1):38–48. Available from: https://pubmed.ncbi.nlm.nih.gov/10170434/

8. Behavior Change Communication (BCC): Importance and Strategies - Public Health Notes [Internet]. [cited 2020 Nov 4]. Available from: https://www.publichealthnotes.com/1142-2/

9. Social and Behavior Change Communication - Johns Hopkins Center for Communication Programs [Internet]. [cited 2020 Nov 4]. Available from: https://ccp.jhu.edu/social-behavior-change-communication/

10. Training for Information, Education, and Communication (IEC) Officers Ministry of Health and Family Welfare Government of India [Internet]. 2013 [cited 2020 Nov 4]. Available from: www.FHI360.org

11. Norman P, Conner M. Health behavior. In: The Curated Reference Collection in Neuroscience and Biobehavioral Psychology. Elsevier Science Ltd.; 2016. p. 1–37.

12. Theory of Addiction - Robert West, Jamie Brown - Google Books [Internet]. [cited 2020 Nov 4]. Available from: https://books.google.co.in/books?hl=en&lr=&id=sWtwAAAAQBAJ&oi=fnd&pg=PT8&ots=Lv6AZ3jhLR&sig=7FNy1jxsMuv088JWq-WsYhsPVKA&redir\_esc=y#v=onepage&q&f=false

13. Lim S, Nakazato H. The emergence of risk communication networks and the development of citizen health-related behaviors during the COVID-19 pandemic: Social selection and contagion processes. Int J Environ Res Public Health [Internet]. 2020 Jun 1 [cited 2020 Nov 4];17(11):1–12. Available from: /pmc/articles/PMC7312553/?report=abstract

14. Ejeta LT, Ardalan A, Paton D. Application of behavioral theories to disaster and emergency health preparedness: A systematic review. PLoS Curr [Internet]. 2015 Jul 1 [cited 2020 Nov 4];7(DISASTERS). Available from: /pmc/articles/PMC4494855/?report=abstract

15. Reddy Bv, Gupta A. Importance of effective communication during COVID-19 infodemic. J Fam Med Prim Care [Internet]. 2020 [cited 2020 Nov 4];9(8):3793. Available from: http://www.jfmpc.com/text.asp?2020/9/8/3793/293075

16. Mbakaya BC, Lee PH, Lee RLT. Hand hygiene intervention strategies to reduce diarrhoea and respiratory infections among schoolchildren in developing countries: A systematic review [Internet]. Vol. 14, International Journal of Environmental Research and Public Health. MDPI AG; 2017 [cited 2020 Nov 4]. Available from: https://pubmed.ncbi.nlm.nih.gov/28368323/

17. Olena Doronina RN, Jones D, Martello M, Biron A, Lavoie-Tremblay M. A Systematic Review on the Effectiveness of Interventions to Improve Hand Hygiene Compliance of Nurses in the Hospital Setting. J Nurs Scholarsh [Internet]. 2017 Mar 1 [cited 2020 Nov 4];49(2):143–52. Available from: https://pubmed.ncbi.nlm.nih.gov/28114724/

18. Schmidt WP, Wloch C, Biran A, Curtis V, Mangtani P. Formative research on the feasibility of hygiene interventions for influenza control in UK primary schools. BMC Public Health [Internet]. 2009 Dec 15 [cited 2020 Nov 4];9(1):390. Available from: https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-9-390

19. C-Modules: A Learning Package for Social and Behavior Change Communication | FHI 360 [Internet]. [cited 2020 Nov 4]. Available from: https://www.fhi360.org/resource/c-modules-learning-package-social-and-behavior-change-communication

20. One Health [Internet]. [cited 2020 Nov 4]. Available from: https://www.who.int/news-room/q-a-detail/one-health