Review Article

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Social behavioral change communication - an approach to vaccine hesitancy

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ABSTRACT

While the proportion of a population needed to be vaccinated against COVID-19 to achieve herd immunity has not yet been established, addressing COVID-19-related vaccine hesitancy is expected to lead to greater numbers of vaccinated individuals, in turn resulting in fewer COVID-19 cases, reduced infection transmission and fewer deaths. Reasons for vaccine hesitancy are influenced by a spectrum of factors from individual belief system to external sources of information. We need to adopt a multi-pronged approach which involves socio demographic domains to achieve herd immunity.

Keywords: COVID-19, Herd immunity, Vaccine hesitancy, Communication

INTRODUCTION

The introduction of COVID-19 vaccine on 16 January 2021, a major step by Government of India towards reducing the spread and associated complications. Since its introduction, it is the world's largest vaccination drive. Hence it is imperative to have a clear, accurate, consistent strategic communication approach where community participation will be the centre point.² The strategy should also include measures to mitigate adverse events following immunization (AEFI) along with vaccine hesitancy during the vaccine roll out. A behaviour change communication (BCC) strategy in vaccination program should have theoretical base in planning and execution. This review explores the application of BCC in overcoming the vaccine hesitancy. These reviews will also benefit the health care workers, officers at policy level, communication experts, for successful roll out of COVID-19 vaccination throughout the country.

Vaccine hesitancy as defined by World Health Organization (WHO) "a delay in acceptance or refusal of vaccination despite availability of vaccination services".³

While the proportion of a population needed to be vaccinated against COVID-19 to achieve herd immunity has not yet been established, addressing COVID-19-related vaccine hesitancy is expected to lead to greater numbers of vaccinated individuals, in turn resulting in fewer COVID-19 cases, reduced infection transmission and fewer deaths. Given that vaccine hesitancy is highly variable and context-specific, the concerns of the patient must be established so that relevant reliable information and advice can be provided.

BURDEN OF THE PROBLEM

In 2019, the WHO listed vaccine hesitancy as one of top 10 threats to global health. Vaccine acceptance among the general public and healthcare workers appears to have a decisive role in the successful control of the pandemic. The aim of this review was to provide an up-to-date assessment of COVID-19 vaccination acceptance rates worldwide. A systematic search of the peer-reviewed English survey literature indexed in PubMed was done on 25 December 2020. Results from 31 peer-reviewed published studies met the inclusion criteria and formed the basis for the final

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COVID-19 vaccine acceptance estimates. Survey studies on COVID-19 vaccine acceptance rates were found from 33 different countries.⁴⁻¹¹ Among adults representing the general public, the highest COVID-19 vaccine acceptance rates were found in Ecuador (97.0%), Malaysia (94.3%), Indonesia (93.3%) and China (91.3%). However, the lowest COVID-19 vaccine acceptance rates were found in Kuwait (23.6%), Jordan (28.4%), Italy (53.7), Russia (54.9%), Poland (56.3%), United States (56.9%), and France (58.9%). Only eight surveys among healthcare workers (doctors and nurses) were found, with vaccine acceptance rates ranging from 27.7% in the Democratic Republic of the Congo to 78.1% in Israel. In the majority of survey studies among the general public stratified per country (29/47, 62%), the acceptance of COVID-19 vaccination showed a level of 70%. Low rates of COVID-19 vaccine acceptance were reported in the Middle East, Russia, Africa and several European countries. This could represent a major problem in the global efforts to control the current COVID-19 pandemic. More studies are recommended to address the scope of COVID-19 vaccine hesitancy.

REASONS FOR VACCINE HESITANCY

It is conclusive that COVID-19 vaccine is the only reliable way to fight over the pandemic. Reservations for COVID-19 vaccines is more pronounced than any other vaccine because of range of reasons, it could be concerns on how and the speed at which it was developed, lack of confidence in the safety of the vaccines, risk of side effects its effectiveness in preventing the infection or disease, complacency regarding the individual risk of getting infected with COVID-19 or lack of time to go and get a vaccine. Reasons for vaccine hesitancy is influenced by a spectrum of factors from individual belief system to external sources of information.

MEDIA, INTERNET AND MISINFORMATION

At present, media and internet is the most infectious and influential medium of communication. The speed of information exchange globally, boosted by social media leading to viral sharing of fringe opinions and disinformation is making it harder for the public to confirm the facts, in due course truth gets lost in the noise. ¹² The effect of social media gets compounded by the intentional spread of disinformation in addition to misinformation. ¹³ Over half of the users' belief the information in in mass media/internet is credible, and most who exempt from vaccination are more likely to have obtained information from these sources. ¹⁴

Politicizing vaccination by political leaders could have dreaded consequences on peoples' acceptance. Public debates by opposition parties throwing concern and criticism on protocols, approvals, efficacy and safety raised doubt and hesitancy among the public for vaccines.¹⁵

SCIENTIFIC COMMUNICATION

Constantly changing guidelines around the gap between the two doses of vaccine and possible side effects is shaking the public confidence on vaccines and at the worst possible time. 16 It could be historical distrust for medical establishments or governmental authority or even the science by some. In the past, governments have suspended vaccines due to correlation with certain health condition, despite reassuring advice from the WHO, reinstating of the vaccination program later due to lack of evidence was met with little support by people because of widespread, unjustified concerns.14 Adding to the fuel with COVID-19 vaccines, is the challenge of 'vaccine shopping' or holding on vaccination to get the best jab, one perceives.¹⁶ People are paying attention to the facts and differences shared on the mass media, the impulse of researchers getting into the nitty gritty of which vaccine is better, as different vaccines are entering the market. It may seem necessary to communicate to maintain transparency, but the possibility of negative impact giving an impression that some vaccines are inferior to others cannot be ruled out.²⁵

INDIVIDUAL BELIEFS, ATTITUDES AND CULTURE

Individual perceptions of being younger, low or nonexistent risk of getting COVID-19 infection or developing severe disease following the infection have been found in communities delaying acceptance or refusal for COVID-19 vaccines among few.¹⁷ On the contrary, people living with co-morbidities have dual opinions due to fear of side-effects from vaccines and risk of infection, this could delay acceptance for vaccination. 18,19 Individuals in many countries were willing to delay vaccination until safety is proven, and wait to see if any adverse event is reported before getting the jab for self. 18 Preexisting vaccine hesitancy in people from rural areas is attributed to lower awareness and health literacy, lack of trust and lesser interaction with health care professionals is of concern.²⁰ Religious prohibitions branding vaccines as 'infidel vaccines' is a known barrier in minority communities, which gets attenuated with conspiracy narratives spreading disinformation on COVID-19 vaccines.21,22

There have been several attempts and measures taken by the government and health authorities campaigning and promoting for COVID-19 vaccination among public. Despite various efforts of communication on mass media by respectable public figures like actors, politicians, doctors and also leaders locally with institutions and smaller communities volunteering for the jab, vaccine hesitancy remained among the masses in the country. Efforts to dispel the myths and misconceptions associated with vaccines and motivate the masses for vaccination, failed in many states, which resulted in vaccine wastage in the initial phase of the biggest vaccination drive in the world. Lack of strategic communication that aims at addressing citizens' beliefs and attitudes towards the

vaccine gives leeway for misinformation and rumours on the vaccines.

Effective social behaviors change communication (SBCC) is the key to support uptake of COVID-19 vaccine and enhance change in the attitude and behavior of people in the community. It is an effective tool for clarifying the misconceptions and rumors from time to time consistently. It is imperative to dive into understanding people's perceptions at every stage of vaccine delivery, before, during and after introduction of vaccine into the society.²³

SBCC should be a dynamic process that unravels factors that underpin hesitancy, scepticism or resistance to the vaccine, determine key drivers of attitude change and track the shift over time. Through this strategy, not only do stakeholders get an understanding on the concerns and be able to address them effectively, citizens also get an opportunity to voice their opinions, concern and worries which brings in a value addition in terms of informed decision making. Behavioural and social data gathered through this model will enable us to design, target, and evaluate interventions to achieve greater impact with more efficiency, and to examine and understand comparable trends over time.¹⁸

SBCC strategies and techniques used during the ongoing pandemic should be transparent in terms of delivering honest, accurate information. It should be proactive, multimodal and frequent, able to address uncertainty and quickly changing guidelines. Effectiveness is enhanced by its inclusiveness, having partnerships with community members and healthcare professionals who can deliver the message appropriately and unbiased. Comprehensive knowledge on COVID-19 infection and disease delivered through the SBCC tools are more likely to have a positive impact on enhancing the willingness to accept the COVID-19 vaccines and also to follow COVID appropriate behaviors there-after. A

We have to acknowledge that no one strategy is a silver bullet to address the complexity of vaccine hesitancy that is sometimes historically deep driven in the minds of people in some communities, especially in a country as diverse as India. Simply urging people to take vaccines by top down approach is likely to back fire many a times. It is extremely important to capture the feelings of the people collectively by engaging communities to design the communication tools addressing the concerns and feeling. This makes the vaccination ccampaigns more specific to the group of audience, also message that is delivered remains consistent.²⁵

CONCLUSION

Last but not the least, adoption of SBCC strategy as a communication tool to promote COVID-19 vaccines not only is the road map to getting back to normal by improving the vaccine uptake among people to achieve herd immunity, it also empowers the community by

enlarge to make informed decisions in other aspects of health and wellbeing

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REFERENCES

- Revised Guidelines for implementation of National COVID Vaccination Program. Available at: https://www.mohfw.gov.in/pdf/RevisedVaccination Guidelines.pdf. Accessed on 14 June 2021.
- 2. COVID-19 Vaccine Communication Strategy. Available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjrseXg1o3zAhWj7XMBHc5AARMQFnoECAIQAQ&url=https%3A%2F%2Fwww.mohfw.gov.in%2Fpdf%2FCovid19CommunicationStrategy2020.pdf&usg=AOvVaw3n3P_uu7t5Ctzk1ChukkdU. Accessed on 14 June 2021.
- 3. Butler R, Diseases V. Vaccine Hesitancy: what it means and what we need to know in order to tackle it. J Vaccine. 2015:11.
- 4. Dror AA, Eisenbach N, Taiber S, Morozov NG, Mizrachi M, Zigron A, et al. Vaccine hesitancy: The next challenge in the fight against COVID-19. Eur J Epidemiol. 2020;35:775-9.
- Kabamba Nzaji M, Kabamba Ngombe L, Ngoie Mwamba G, Banza Ndala DB, Mbidi Miema J, Luhata Lungoyo C, et al. Acceptability of Vaccination Against COVID-19 Among Healthcare Workers in the Democratic Republic of the Congo. Pragmat Obs Res. 2020;11:103-9.
- Kwok KO, Li KK, Wei WI, Tang A, Wong SYS, Lee SS. Influenza vaccine uptake, COVID-19 vaccination intention and vaccine hesitancy among nurses: A survey. Int J Nurs Stud. 2020;114:103854.
- Harapan H, Wagner AL, Yufika A, Winardi W, Anwar S, Gan AK, et al. Acceptance of a COVID-19 Vaccine in Southeast Asia: A Cross-Sectional Study in Indonesia. Front Public Health. 2020;8:381.
- 8. Lazarus JV, Ratzan SC, Palayew A, Gostin LO, Larson HJ, Rabin K, Kimball S, El-Mohandes A. A global survey of potential acceptance of a COVID-19 vaccine. Nat Med. 2021;27(2):225-8.
- 9. Neumann-Böhme S, Varghese NE, Sabat I, Barros PP, Brouwer W, van Exel J, Schreyögg J, Stargardt T. Once we have it, will we use it? A European survey on willingness to be vaccinated against COVID-19. Eur J Health Econ. 2020;21(7):977-82.
- Wang J, Jing R, Lai X, Zhang H, Lyu Y, Knoll MD, Fang H. Acceptance of COVID-19 Vaccination during the COVID-19 Pandemic in China. Vaccines (Basel). 2020;8(3):482.
- 11. Wang K, Wong ELY, Ho KF, Cheung AWL, Chan EYY, Yeoh EK, Wong SYS. Intention of nurses to accept coronavirus disease 2019 vaccination and change of intention to accept seasonal influenza vaccination during the coronavirus disease 2019

- pandemic: A cross-sectional survey. Vaccine. 2020;38(45):7049-56.
- 12. Wiysonge CS, Ndwandwe D, Ryan J, Jaca A, Batouré O, Anya B-PM, et al. Vaccine hesitancy in the era of COVID-19: could lessons from the past help in divining the future? Hum Vaccines Immunother. 2021;1-3.
- 13. Wilson SL, Wiysonge C. Social media and vaccine hesitancy. BMJ Glob Health. 2020;5(10):e004206.
- D'Errico S, Turillazzi E, Zanon M, Viola RV, Frati P, Fineschi V. The Model of "Informed Refusal" for Vaccination: How to Fight against Anti-Vaccinationist Misinformation without Disregarding the Principle of Self-Determination. Vaccines (Basel). 2021;9(2):110.
- 15. Cherian P, Jadhav N, Nandi S. Five steps the Indian government must take to ensure an effective rollout of Covid-19 vaccines. Available at: https://scroll.in /article/987395/five-steps-the-indian-governmentmust-take-for-the-effective-rollout-of-covid-19vaccines. Accessed on 22 June 2021.
- 16. Star Editorial Board. Constantly changing guidelines are undermining public trust in all vaccines. 2021. Available aat: https://www.thestar.com/opinion/editorials/2021/03/29/constantly-changing-guidelin es-are-undermining-public-trust-in-all-vaccines.html. Accessed on 22 June 2021.
- 17. Soares P, Rocha JV, Moniz M, Gama A, Laires PA, Pedro AR, et al. Factors Associated with COVID-19 Vaccine Hesitancy. Vaccines. 2021;9(3):300.
- 18. Wang J, Jing R, Lai X, Zhang H, Lyu Y, Knoll MD, et al. Acceptance of COVID-19 Vaccination during the COVID-19 Pandemic in China. Vaccines. 2020;8(3):482.
- Reno C, Maietti E, Fantini MP, Savoia E, Manzoli L, Montalti M, et al. Enhancing COVID-19 Vaccines Acceptance: Results from a Survey on Vaccine Hesitancy in Northern Italy. Vaccines. 2021;9(4):378.

- Khubchandani J, Sharma S, Price JH, Wiblishauser MJ, Sharma M, Webb FJ. COVID-19 Vaccination Hesitancy in the United States: A Rapid National Assessment. J Community Health. 2021;46(2):270-7.
- 21. Kanozia R, Arya R. "Fake news", religion, and COVID-19 vaccine hesitancy in India, Pakistan, and Bangladesh. Media Asia. 2021;0(0):1-9.
- 22. Khan YH, Mallhi TH, Alotaibi NH, Alzarea AI, Alanazi AS, Tanveer N, et al. Threat of COVID-19 Vaccine Hesitancy in Pakistan: The Need for Measures to Neutralize Misleading Narratives. Am J Trop Med Hyg. 2020;103(2):603-4.
- Use behavioural change communication to dispel vaccine rumours. The Star. Available at: https://www.the-star.co.ke/opinion/columnists/2021-03-29-use-behavioural-change-communication-to-dispel-vaccine-rumours/. Accessed on 23 June 2021.
- 24. Harapan H, Wagner AL, Yufika A, Winardi W, Anwar S, Gan AK, et al. Acceptance of a COVID-19 Vaccine in Southeast Asia: A Cross-Sectional Study in Indonesia. Front Public Health. 2020;8:381.
- 25. Understanding and addressing barriers to COVID vaccine acceptance. Penn Today. Available at: https://penntoday.upenn.edu/news/understanding-and-addressing-barriers-covid-vaccine-acceptance. Accessed on 15 June 2021.
- 26. Goldstein S, MacDonald NE, Guirguis S, SAGE Working Group on Vaccine Hesitancy. Health communication and vaccine hesitancy. Vaccine. 2015;33(34):4212-4.

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