Misinformation induced anxieties and fear affecting vaccination programs: Challenge for COVID-19 vaccination program

Dear Editor,

The development of vaccinations against infectious diseases has been one of the most outstanding public health achievements in the twentieth century. The vaccines over the years have saved millions of lives and billions of dollars annually[3] and in the current coronavirus pandemic scenario, vaccines to prevent COVID-19 disease are perhaps the best hope to end this pandemic. Research studies have estimated that to achieve herd immunity, the COVID-19 vaccine will need to be accepted by at least 55% of the population, with estimates reaching as high as 85% depending on country and infection rate.[5] As of February 2021, many candidate vaccines have been shown to be safe and effective, around 175.3 million vaccine doses have been administered from 7 different vaccines [3 platforms].[8] World Health Organization issued an Emergency Use Listing (EULs) for various vaccines from the last few months and monitors the progress of such candidate vaccines. Although vaccines reduce morbidity and mortality,[3] many people prefer not get vaccinated for various reasons. Recent research findings suggest that a substantial proportion of European adults are hesitant about, or resistant to, a vaccine for COVID-19.[3] The vaccine hesitancy is not a new phenomenon and was witnessed in previous outbreaks of infectious diseases like measles-mumps-rubella vaccines. The hesitancy and refusal are creating a new challenge for the public health and infection control measures. The problem of hesitancy may affect the COVID-19 vaccination programs due to beliefs, fears, or concerns such as minor side effects as anticipated by people. This letter aims to highlight the importance of addressing the potential effects of misinformation creating fear and anxiety and thus affecting the universal vaccination programs.

The biggest challenge currently for public health is to ensure that the COVID-19 vaccines are accepted widely by all sections of society. Various factors (social, demographical, economic, cultural, etc.) are associated with vaccine hesitancy and influence the necessary vaccine uptake. Among these, the potential impacts of misinformation affecting the acceptance and uptake of vaccines are essential determinants in universal vaccination coverage. Vaccination regularly generates controversy in traditional and social media, fueled by conspiracy theories, false beliefs, fake news about vaccines, lack of confidence among stakeholders, often because of unsubstantiated safety concerns,[8] which often leads to vaccine hesitancy or refusal by people. The common factors affecting the acceptance of vaccines are perceiving that vaccines are unsafe, cause short- and long-term side-effects or are ineffective. It suggests that these general factors are important to consider even during COVID-19 times for the assessment and intervention to change people’s attitudes towards getting vaccinated. In one of the studies,[7] researchers found that individuals with high levels of psychological dispositions such as (i) needle/blood sensitivity (anxiety), (ii) need for cognitive closure (lack of tolerance to ambiguity), and (iii) desire for moral purity (feelings of disgust) are related with vaccine misinformation and hesitancy. The people on first two were more susceptible to vaccine misinformation, and the third was less likely to be affected by misinformation. While vaccine refusal or hesitancy may be associated with the mentioned factors, some emotional factors may cause hesitancy, such as choosing to suffer negative consequences of rejection rather than the adverse effects of getting vaccinated. These factors may disrupt the COVID-19 vaccination programs and may increase mortality and morbidity. The other effects may be the burden of infection cases, heavy case load in hospitals, impact on vulnerable populations, and rising mental health issues among people.

Ever since the outbreak of COVID-19, there has been a lot of information dissemination through media sources about the virus, preventive measures, fake information about the virus on social media sites, vaccines and their effectiveness, recent news about the side-effects COVID-19 vaccines has generated fear among people. Many countries in recent times, mainly European countries suspended the vaccinations due to side-effects[8] such events can also add to create more fear and confusion among people and can lead to hesitancy of vaccinations. Some other factors commonly being discussed are belief that there is a conspiracy, that COVID-19 is a business trap, trust issues in government responses etc., these issues if unaddressed may become factors for vaccine refusal or hesitancy. While the Reduced vaccination rates can lead to the resurgence of COVID-19 positive cases, there is a need to correcting misinformation and addressing the fear, anxieties, doubts about adverse effects and attitudes for improving knowledge and prompting vaccine uptake. Social psychology can play a significant role in transforming the attitudes and perception of people, reminding them of social norms where people see getting vaccination is a norm and using social psychological theories in altering the behaviour of people. While medical science has helped prevent the virus through preventive measures such as wearing a mask, washing hands regularly, and maintaining physical distancing, these measures are not enough to fight with virus.

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This highlights the need for vaccines that will work with the immune system fight with virus if exposed.

In conclusion, the authors believe that efforts need also be centred on addressing the concerns, fear, anxieties of the people for the successful universal vaccination concerning COVID-19. Creative endeavours need be developed to involve community leaders, NGOs, religious leaders, physical and mental health professionals, health assistants/workers, grass root level workers who are directly or indirectly related with people towards making the vaccine drives successful in combating with Coronavirus disease. As there are anxieties or fear associated with vaccines, particular focus should also direct towards longitudinal researches which might determine the influence of such factors on vaccine refusal. There is a need of coming up with solutions that will address such concerns and help in keeping the mental health intact while at the same tome making sure the vaccines are accepted widely by the general public.

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