

COVID-19 vaccine hesitancy and media channel use in Japan: could media campaigns be a possible solution?

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As coronavirus disease 2019 (COVID-19) vaccination is undoubtedly a key to controlling the transmission of COVID-19, owing to its effectiveness,¹ increasing the willingness to receive COVID-19 vaccines is a crucial mission for both vaccine coverage and subsequent global infection control. In this context, COVID-19 vaccine hesitancy, the reluctance to receive COVID-19 vaccines, has become a significant growing public health concern.² Although COVID-19 vaccine hesitancy varies across cultural and geographical contexts,³ general mistrust for vaccines and fear of future adverse events are major concerns among the hesitant.⁴ Such mistrust, fear, and the unwillingness to vaccinate, based on misinformation or disinformation, are often cultivated by mass and social media.⁵ Since individuals generally use multiple media channels, identifying specific media use, including combinations of media use among the hesitant, is essential to prevent the development of COVID-19 vaccine hesitancy.

In the recent issue published in *The Lancet Regional Health – Western Pacific*, Yoneoka et al. presented findings on the prevalence of negative attitudes towards COVID-19 vaccination, such as being unsure or unwilling to receive vaccines, among respondents from a large-scale internet survey (n = 30,053), conducted from February 26 to March 4, 2021, in Japan.⁶ This study highlighted age disparity in vaccine attitudes e.g., the younger age group (20–34 years) was unsure or unwilling to receive COVID-19 vaccination compared to the older age group (≥65 years), as observed in another study conducted in Japan.⁷ Moreover, this study was challenged with identifying the media channels associated with negative attitudes towards vaccination, using a multinomial logic regression model. To the authors' excellence, this study adjusted for demographic, social, economic, and health-related confounding factors in the analysis and closely examined exposure variables i.e., information sources about COVID-19. Consequently, the authors identified that not using the following media channels was associated with being unsure of

vaccination: medical professionals, government, and television. In contrast, using the following media channels was associated with being unwilling to receive vaccination: newspapers, COVID-19 expert meetings, medical professionals, and local governments. Furthermore, the authors clarified that such associations varied across age groups. Although the generalizability of this study was limited because of the cross-sectional internet-based design, this study will provide public health leaders and policymakers with meaningful information in health communication through media channels. Nevertheless, to highlight the importance of optimal media campaigns from their results, some issues that future research should complement emerge.

First, this study did not examine some essential components that mediate media channel use and vaccine attitudes, such as trust in sources of information or acceptance of fake news, misinformation, and conspiracy theory from mass and social media.⁸ In this study, it is possible that some respondents who were unwilling to receive COVID-19 vaccination were anti-vaccine-activists, while other respondents may have developed negative attitudes due to fear or anxiety after receiving or even believing in the misinformation. However, this study did not identify the reasons for such negative attitudes towards vaccination. The authors only asked respondents about their willingness to accept vaccination against COVID-19 via the specific question that the authors had developed. To effectively utilize the study findings and use media campaigns to promote COVID-19 vaccination, future research that elucidates both media channel use and trust or acceptance of the information sources is essential. Second, Japan has administered >197,000,000 doses of COVID-19 vaccines as of December 1, 2021.⁹ People who have been fully vaccinated account for more than 77% of the Japanese population. The proportion of unvaccinated people in Japan (approximately 23%) is much lower than that of unsure or unwilling to receive the COVID-19 vaccine in this study (43.9%). Given this, a certain number of people who felt negative about COVID-19 vaccination in February and March 2021 may have received vaccines despite their attitudes towards vaccines. Hence, future studies focusing on those who hesitated or were denied vaccination due to misinformation or disinformation, even after high vaccination coverage rates, are still needed. In those studies, clarifying the associated factors, including

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media channel use, is vital for increasing COVID-19 vaccine coverage.

Based on recent discussions regarding COVID-19 vaccine booster shots,¹⁰ vaccine hesitancy will remain a global public health threat among both low-income countries, where COVID-19 vaccines do not reach the people in need, and high-income countries, where almost all people are fully vaccinated. Thus, further research that fills the gaps between media channel use and COVID-19 vaccine hesitancy, and between the willingness and the acceptance of vaccination, should be prioritized.

Declaration of Competing Interest

The author has no conflicts of interest to declare.

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Author contributions

TY: conceptualization, investigation, methodology, project administration, supervision, validation, visualization, writing – original draft, writing – review, and editing.

Ethics approval

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