The *Overcoming Vaccine Hesitancy in Hong Kong* Project
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Understanding Vaccine Hesitancy in Hong Kong

Research Questions

1. Is vaccine hesitancy prevalent in Hong Kong?
2. Why do vaccine-hesitant people delay or refuse to receive COVID-19 vaccines? Why are others willing to get vaccinated?
3. Is delaying COVID-19 vaccination related to trust in the government and the number of vaccinated friends and relatives an individual has?
4. Do perceptions of misinformation affect decisions to delay COVID-19 vaccination among vaccine-hesitant people?

Methods

Dr Stephanie Jean Tsang, Assistant Professor at the Department of Communication Studies at Hong Kong Baptist University, conducted an online survey of 1,654 Hong Kong citizens aged 18 or above between 22 June 2021 and 30 June 2021. The survey was designed to gather information on the respondents' intention to receive a COVID-19 vaccine, their perceptions regarding misinformation ("fake news") during the pandemic, and, in particular, the reasons for vaccine hesitancy. A quota sampling method was used to select participants based on gender and age. The following is a summary of the basic demographic information of the respondents:

- Gender: 782 men (47.3%) and 872 women (52.7%)
- Age: 18 to 68 years old (average age: 38)
- Education attainment: A majority (65.5%) of the respondents held a post-secondary degree or above.

- Monthly personal income: The average salary of the participants ranged from HK$20,000 to HK$39,999.

Dr Tsang also analysed the fact-checked reports issued by the HKBU FactCheck Service[1] to examine the impact of misinformation during the pandemic.

Major Findings

Vaccine hesitancy in Hong Kong

1. Vaccine hesitancy is defined as slowness in acting or deciding due to doubt or uncertainty or a lack of willingness to do something.[1] Of the respondents, 42.2% reported that they had received their first dose of COVID-19 vaccine, 27.6% did not intend to get vaccinated, and 30.2% indicated they would "delay getting a vaccine but might eventually be willing to receive it". Of the latter group, 18.0% said they would receive a vaccine within the following three months, and 12.2% reported they would be vaccinated after three months or longer. (See Chart 1)

2. For those who intended to delay their vaccination, 76.2% planned to receive the Pfizer-BioNTech vaccine (Comirnaty), while 23.8% preferred to receive the Sinovac vaccine (CoronaVac).

Factors influencing Hong Kong citizens' intention to get vaccinated

3. The main reason for the reluctance of some respondents to get vaccinated was fear, including fear of side effects, allergic reactions, and death. These concerns may arise from biases in risk perception[3] or individual biases[2] such as omission bias. The ways in which information is disseminated may also affect people's risk perception and assessment of the vaccines.[4,5] (see Chart 2)

4. The major reasons for the willingness among respondents to receive a COVID-19 vaccine were to protect themselves and their families, to keep safe, and to curb the pandemic. (See Chart 3)

5. Apart from the reason of protecting themselves and families, more respondents received the Pfizer-BioNTech vaccine in order to travel abroad than those who received the Sinovac vaccine. The respondents who received the Sinovac vaccine were more likely to refer to the word "citizen" (公民) than those who received the Pfizer-BioNTech vaccine. (See Chart 4 and Chart 5)

6. Regarding trust in the government and other organisations involved in epidemic prevention, the study found a correlation between the respondents' intention to get vaccinated and their trust in the government. While the correlation was statistically significant, it was not particularly strong. Those who distrusted the government were more likely to delay their vaccination. All the analyses controlled for the effects of demographic variables.

7. The study also found a significant correlation between an individual's intention to delay vaccination and the number of friends and relatives who had received their first dose of COVID-19 vaccine. Those who had fewer vaccinated friends and relatives were more likely to delay vaccination.

The prevalence of pandemic-related misinformation

8. As of September 2020, 50.0% of the total fact checks conducted by HKBU FactCheck Service[1] concerned vaccination[6], 70% of which were classed as misinformation. Of the pandemic-related fact checks, 25% related to vaccine rankings and recommendations from experts or WHO,[7] while 10% related to side effects and adverse reactions. The pandemic-related fact checks were mainly published in December 2020 and June 2021. (See Chart 6)

Misinformation and vaccine hesitancy

9. Regarding public perceptions of misinformation, 21.4% of the respondents said that the spread of fake news during the COVID-19 outbreak was "not severe at all" or "not very severe", 44.1% answered "fifty-fifty", and 34.6% considered it "quite severe" or "very severe". Excluding the influence of the demographic variables, i.e., age, gender,

education attainment, and monthly personal income, the study found that citizens' perceptions regarding the severity of misinformation during the pandemic had no correlation with vaccine hesitancy.

10. Regarding the impact of misinformation on the effectiveness of COVID-19 preventive measures, 53.3% of the respondents said it was "quite significant" or "very significant", 31.4% answered "average", and 13.5% answered "of little significance" or "not significant at all". Similar to the previous findings, excluding the influence of the demographic variables, the study found that citizens' perceptions regarding the impact of misinformation on the effectiveness of COVID-19 preventive measures had no correlation with vaccine hesitancy.

11. The data shows that the majority of respondents were concerned about COVID-19 news, with 70.7% reporting that they were "quite concerned" or "extremely concerned" about the relevant news. Excluding the influence of the demographic variables, the study found that the more concerned an individual was about COVID-19 news, the more they perceived the spread of fake news during the pandemic as severe, and the more they thought misinformation influenced the effectiveness of COVID-19 preventive measures.

12. In addition, among respondents who expressed vaccine hesitancy, the less concerned they were about COVID-19 news, the greater their intention to delay vaccination. Based on the fact that their knowledge about the Pfizer-BioNTech and Sinovac vaccines did not appear to affect vaccine hesitancy, we have reason to believe that there is a significant correlation between vaccine hesitancy and the extent to which people are concerned about COVID-19 news because those who intended to get vaccinated earlier were more concerned about news and information related to the pandemic than those who intended to receive their vaccination later.

Conclusions

The results show that nearly 30% of the respondents had delayed vaccination. For this group of people with vaccine hesitancy, gender, age, education attainment, political orientation, and even individual physical condition had no significant influence on their intention to delay vaccination. Instead, the influential factors were (1) whether their family and friends had been vaccinated, (2) their trust in the government, and (3) their assessment of the efficacy and safety of the vaccine. The main reason for Hong Kong citizens' decision to get vaccinated is the protection that the vaccine can offer. Thus, it is necessary for public health experts to emphasise the protective effects of the vaccine for individuals, families, and society in order to plan more effective vaccination communication strategies.

The second reason why citizens were willing to receive vaccination was their desire to travel abroad. Therefore, the HKBU research team suggests that gradually relaxing travel restrictions will increase public willingness to receive COVID-19 vaccines. Providing more concessions for vaccinated people will also be an important factor in motivating the public to get vaccinated. Lastly, the team suggests that the government study the most appropriate channels for communicating health information to the public and encourage the public to verify vaccine-related information themselves.

References

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