

### **Letter to Editor**

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# Perceived susceptibility, severity, and reinfection of COVID-19 may influence vaccine acceptance

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To the editor: We read with interest the article by Huynh G et al[1]. We congratulate them for performing a cross-sectional survey among healthcare personnel (HCP) to understand their knowledge and attitudes towards the coronavirus disease 2019 (COVID-19) vaccine immediately before the vaccination. It is essential to consider HCP's attitudes about the vaccination because previous experiences with the influenza epidemic have shown a low acceptance and uptake of influenza vaccine among the general population and, more strikingly, among HCP, despite being a highly vulnerable subgroup[2].

We have several concerns regarding the interpretation of the index study. The perceived susceptibility (risk of infection) and perceived severity of the disease (i.e. beliefs that they do not need the vaccine) are crucial determinants contributing to vaccine hesitancy in HCP[3,4]. The index survey participants were HCP not directly caring for COVID-19 patients, which might have affected their perception of the illness and concerns of spreading the infection to their family or friends. Given the mean age of about 40 years, the medical comorbid illness status of the surveyed HCP should have been looked into, further affecting the perceived risk of infection and its severity. The opinion of HCP who previously had COVID-19 infection was not evaluated in the survey. Perceived risk of reinfection might have influenced the attitude towards the vaccine. Moreover, the burden of COVID-19 in Vietnam is much lesser than in most other Asian countries, and the survey was also not nationwide.

The index survey also found that the sources of television resulted in a higher inclination to get vaccinated. However, the spread of misand disinformation through the media and social media platforms-referred to as 'infodemic' by the World Health Organization usually increases vaccine hesitancy[5]. Apart from the scientific concerns, HCP are not entirely unaffected by 'infodemic'.

Overall, the index survey explored many relevant components of the health belief model. However, the vaccine adoption might differ in a healthcare population in the areas with high transmission, who are directly exposed to the COVID-19 patients or have medical comorbidities.

## **Conflict of interest statement**

The authors declare that there are no conflicts of interest.

#### **Authors' contributions**

S.K. wrote the first draft of the manuscript. Both N.S. and A.K.P. authors contributed to the final version of the manuscript. A.K.P. developed the theoretical formalism and supervised the project.

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