Review of: "Real-World Efficacy of N95, Surgical, and Cloth Masks in Mitigating SARS-CoV-2 Respiratory Infections: A Comprehensive Comparative Study"

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Potential competing interests: No potential competing interests to declare.

1. At the final paragraph, the authors mentioned the following:

“Lastly, given the evolving nature of respiratory viruses and the emergence of new variants, ongoing research is necessary to evaluate the effectiveness of masks against emerging strains. This includes assessing the compatibility of mask materials with specific viral strains and exploring the potential need for mask modifications or updated guidelines.”

In order to discuss the effectiveness of masks for preparing future pandemics, first of all, it is important to investigate the effectiveness of masks for each mutant strain in the past. Mostly, the mutant strain of Tokyo in this research can be identified by stating the research period. However, as far as I can see, there is no mention of the investigation period. It should be indicated. As you know, the types of mutant strains in each time series are available on https://covariants.org/per-country

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The primary metric for our analysis was the cumulative number of infections per 1,000 mask wearers for each mask type. This was calculated using the formula:

$$C = (I/N)\times 1000 \quad (1)$$

Where

C is the cumulative number of infections per 1000 mask wearers,

I is the total number of infections, and

N is the total number of subjects (which is 1000 in this case).

Therefore, in this case, N=1000 and equation (1) is

$$C = I \quad (2)$$

Then, C should be an integer value (integer). However, Fig.1, 2, and 3 are not integer

values. It is necessary to explain this difference.

3.

This study is different from an "experiment" in which other factors are under control such as physical distancing, hand hygiene, and vaccination, etc. For example, I think healthcare workers are at higher risk of being exposed to the virus, so they are taking the above precautions more thoroughly than non-healthcare workers. Considering the above, I think the following description is necessary. If this information is not available in time for this paper, please refer to the followings for the future research.

1) Whether the 1000 subjects are medical personnel or not.

Whether or not there are any differences depending on the group.

2) Whether or not the age composition approximately equal in each group.

3) Infection route information where they had contracted such as work, home, or somewhere else.

4) Whether or not the person was infected despite wearing a mask, observing physical distancing, hand hygiene, and vaccination.