

Poor Mask Etiquette – Unacknowledged, Neglected, and Potentially Grave



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ABSTRACT

Poor mask etiquette may be responsible for exponentially increasing the spread of the SARS-COV-2 and other infectious diseases as the exact contribution of hand hygiene to indirect spread of coronaviruses between people is currently unknown as stated by the CDC. With the implementation of mandating face coverings in certain areas, a new variable to the equation of infectious disease control, proactive investigations on these new routes of infectious transmission are necessary.

With the requirement of face coverings, the CDC states that the wearer follow proper hygienic etiquette. Principle among the guidelines is that the wearer does not contact the facial covering of one's own mask while in use. As wearing a mask to prevent droplet spread is theorized to reduce viral person to person transmission, it is predicted that indirect physical transmission through poor mask etiquette may not only increase person to person viral spread but other respiratory infectious diseases as well via introducing a new route of infection.

To confirm this route of transmission via poor mask etiquette is occurring in the general public, a survey for Oregon residents aged 18 to 60 years old was released to assess compliance to the CDC's mask etiquette recommendations. It was found that a statistically significant portion of residents with and without healthcare experience were not complying with the CDC's recommendations on a 95% confidence interval. These findings urge the scientific and public health communities to be aware and ready for the hazards this may pose, as well as call for further public education and emphasis on proper mask etiquette.

OBJECTIVE

To call to research and identify a possible overlooked factor in respiratory infectious transmission. To draw attention to the possible risks of improper mask etiquette.

INTRODUCTION

SARS-COV-2 presents a new unknown, leading to a massive deficiency in research and changes in population dynamics. Given its relatively acute presentation met with rapid responses and little exposure to the scientific community, social behavior among many other factors are essential to monitor. A new element to how people live their lives has been introduced. The implementation of masks and their use must be thoroughly examined to ensure the safety of the masses. For now, all safety implementations should be examined with respect to human compliance and awareness, both of which may be lacking. A lack of compliance and understanding on proper safety procedures may be harmful.

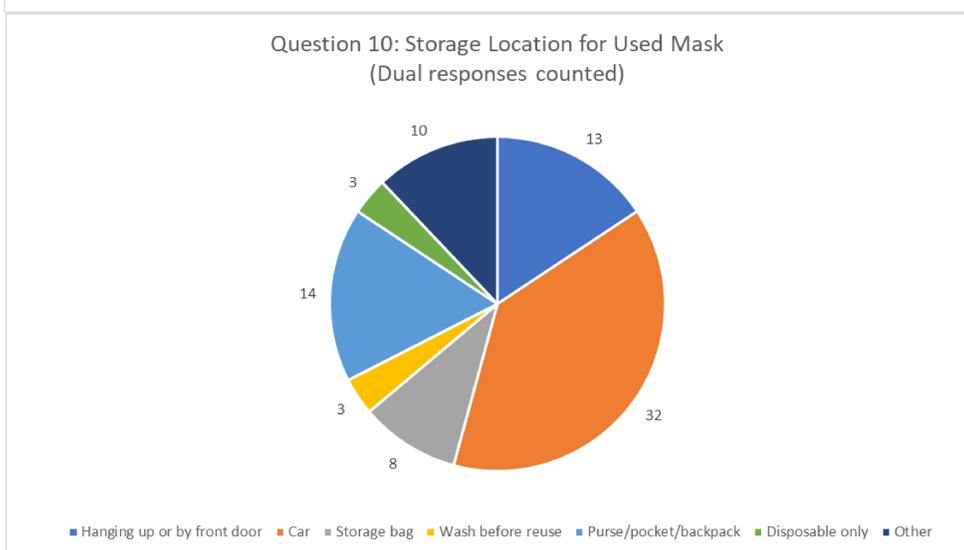
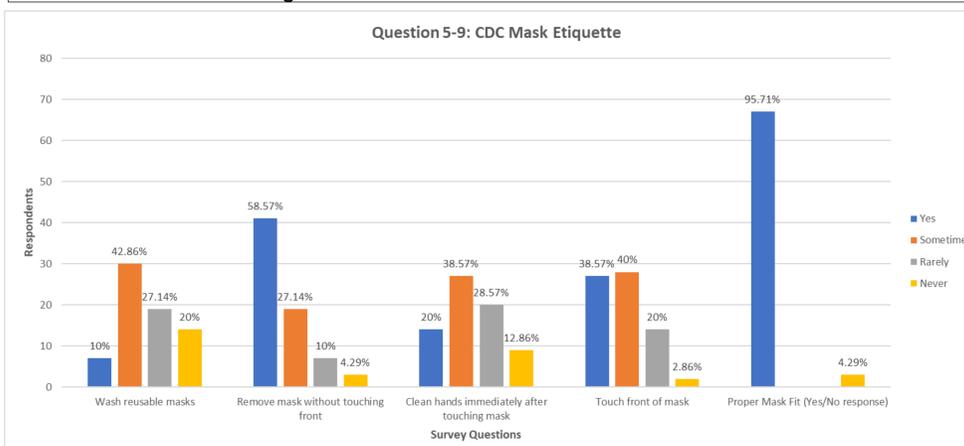
RESULTS

As seen in the study design, response 'yes' to questions 5, 6, 7, 8 and 9 are considered absolute compliance to the CDC's guidelines on proper mask etiquette. Any other response was labeled non-compliance, as proper mask etiquette assumes the general population will always follow the assumed recommendations. Using a total of 70 respondents answers to the five questions, a Chi-Squared test was done. With a p-value of 0.05 and 4 degrees of freedom a Chi-squared value was calculated to be 179.7.

Notable findings:

A large majority of respondents (88.57%) report seeing other people "not wear a mask at all", "not have their mask cover both their nose and mouth", and "touch their facemask front covering (anything but the ear-loops/strings)". 10% or respondents report observing 2 of these behaviors, and only 1 respondent said they had not seen other people exhibit any of these behaviors.

Demographics		
	Yes	No
Experience/education in the healthcare field	75.71%	24.29%
Aware of all CDC mask guidelines	90%	10%



STUDY DESIGN

Participants elect to participate in a survey through Facebook. The survey will assess their complicity with the CDC's guidelines for proper mask etiquette, among other survey qualifying questions. Qualifying criteria are as follows: must have worn a mask in a mandated area in Oregon. Must be between the ages of 18 and 60. Must have access to Facebook. Aside from qualifying criteria, the following questions are listed below.

- 3. Do you have experience and/or education in a healthcare field?
- 4. Are you aware of all the CDC's guidelines in proper mask etiquette and hygiene?
- 5. When wearing a mask, do you ensure that the fit is snug and completely covering both your nose and mouth?
- 6. When wearing a mask, do you ever: contact the facial covering portion of the mask, even briefly to adjust it?
- 7. If you accidentally or intentionally touch the front your mask while wearing it, do you wash or sanitize your hands immediately?
- 8. When removing your mask, do you untie or lift the mask by the ear loops without touching the front of the mask or your face?
- 9. After using your mask with intent to reuse it, do you regularly wash it with soap in water in the washing machine or by other means?
- 10. After removing your mask, where and how do you store it for reuse?
- 11. Have you seen OTHER PEOPLE in mask mandated areas doing the following?

Percentages will be calculated using a chi-squared statistic to measurable compliance with the CDC's guidelines.

DISCUSSION

With a Chi-squared value that was calculated to be 179.7, there is strong evidence to reject the null hypothesis that Oregon residents between the ages of 18 and 60 follow the CDC's guidelines on proper mask etiquette.

CONCLUSION

With a strong majority of participants not fully compliant on the CDC's mask etiquette guidelines, there is a significant need for public education in that the consequences of poor etiquette is not yet completely understood. Most concerning is that 75.71% of the respondents report to have experience or education in the healthcare field, yet still do not comply with the guidelines. These findings emphasize this necessity for further investigation at the risks these behaviors pose, as well as a greater emphasis on public mask etiquette.

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