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## DANISH MASK STUDY

# Danish mask study: masks, media, fact checkers, and the interpretation of scientific evidence

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The results of the Danmask-191 trial<sup>1</sup>—which, by conventional interpretation, showed that wearing masks had no effect on the prevention of covid-19 spread—are contested. An editorial for *The BMJ* disagreed with convention and criticised the labelling of the “no effect” reading by Oxford professors Heneghan and Jefferson as “false information.”<sup>2</sup> We were also labelled “misleading” after our “no effect” interpretation.<sup>3</sup>

Scientists interviewed by the fact checker in response to our post stated that it was “misleading to claim the Danish study found masks were ineffective.” Results of observational studies were offered as evidence to support mass masking.<sup>3</sup>

The results of the trial deserve scrutiny. Firstly, the study was designed to detect a minimal effect of halving of infection proportions with 80% statistical power.<sup>1</sup> In the event, 90% power was achieved. Thus, conventionally, the results (odds ratio 0.82; 95% confidence interval, 0.54 to 1.23) indicate that masks do not prevent covid-19 spread. The P value (0.3) indicates that the trial’s observed results, or more extreme, would commonly occur if the research were repeated and masks truly had no effect on viral spread.

Should we abandon convention altogether? If we did, we may eventually promote ineffective treatments. As an example, electrostimulation, laser therapy, and acupuncture are not generally thought to improve smoking cessation success, yet several promising pooled effects were calculated in a meta-analysis, although the majority were not “statistically significant.”<sup>4</sup>

The tone of the “fact checking” piece that apparently supports mass masking as having a “small protective effect” over a conventional interpretation as “misleading” turns usual scientific practice on its head. Pointing to observational evidence to contradict trial results is another subversion of usual epidemiological practice.<sup>5</sup> While this may seem trivial, it is a subtle distortion of results and the politicisation of evidence in the covid-19 era.

Competing interests: None declared.

Full response at: [www.bmj.com/content/371/bmj.m4586/rr-7](http://www.bmj.com/content/371/bmj.m4586/rr-7).

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