Public Health’s Call to the People: Media Misinformation Matters

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While the world wrestles with a microscopic virus, a subtler, but no less critical, battle bubbles beneath the surface: the clash between science’s granular complexity and the race for clear conclusions in journalism. Since the start of this pandemic, we have witnessed the repercussions of inflammatory language. We have also seen the dramatic adverse effects of misinformation, whether intentional or unintentional: The April 2020 myth of the virus being ‘over.’ The myth of hydroxychloroquine as cure. The myth of the futility of masks. The myth of the COVID-19 vaccine editing our DNA (Loomba et al., 2021; Horlick et al., 2021; Brunell & Maxwell, 2020).

As social-media-conscious millennials, we know the power of punchy, conclusive language. Sexy headlines pour fire into public conversations and are more likely to be passed around the internet, rapidly spreading a trail of clickbait. However, that trail also plants seeds of misinformation. As public health students being trained to interpret scientific literature, we are concerned by this kind of truth makeover, particularly as it pertains to COVID-19. While many of these public health myths have played out on social media, news media is an important locus of misinformation spread as well that must be held to a higher standard (Smith et al., 2020).

Just two days before Thanksgiving, as millions of Americans boarded planes across the country, the New York Times (NYT) published an article summarizing a recent study on mask wearing (TSA, 2020; Kolata, 2020). The headline, “A New Study Questions Whether Masks Protect Wearing. You Need to Wear Them Anyway,” misrepresented the study it attempted to condense. The opening line came no closer to accurately relaying the findings: “Researchers in Denmark reported on Wednesday that surgical masks did not protect the wearers against infection with the coronavirus in a large randomized clinical trial” (Kolata, 2020).

This study, however, did not assess whether masks are effective. Rather, the study evaluated whether the recommendation to mask, an entirely different construct, is effective. Per the authors, only 46% of study subjects consistently wore masks as recommended, based on self report. Thus, the investigators concluded that the recommendation of mask-wearing does not necessarily lead to mask-wearing. The study, to be clear, did not assess the effectiveness of masks — but whether or not people wear them when told to. This critical distinction somehow got lost in translation.

The NYT is not alone in this misinterpretation. Reuters, CNN, and The Local (a Danish news source) also misrepresented the Danish mask study (Darcy, 2020; Reuters, 2020; The Local, 2020). Fox News reported on the NYT article, furthering the ripple of misinformation, which disseminated over social media platforms (Fox, 2020). Unfortunately, the misrepresentation of this study is not an anomaly. Scientific studies and public health information are regularly misconstrued to the public, and have been long before COVID-19 (Burnett, 2017; Resnick, 2019).

This incongruence stems from a range of factors. Some are unintentional, such as errors due to the complexity of a scientific article or difficulty contacting lead authors. And some are intentional, such as sensationalizing headlines to increase readership (Carmichael, 2017). While these challenges existed prior to COVID-19, they have become starker in the wake of the pandemic; more reporters with little to no public health training are covering health-related topics, and information is rapidly changing as preprint studies and novel policy decisions are released daily (Yan, 2020).

Moreover, many readers are not fluent with the limited implications of preprint studies, nor aware that they should be interpreted with caution. Whether from a well-conducted study, case reports, or narrative anecdotes on social media, preliminary information appears on social media and can create serious confusion if not carefully and clearly reported.

In early March 2021, multiple news outlets reported that the AstraZeneca vaccine caused blood clots after a very small number of stories in Europe reported bleeding, blood clots and low platelet count in people who had received the AstraZeneca vaccine (Rosman, 2021). By March 18, Europe’s Medicine Agency (EMA) announced that the vaccine was not associated with a statistically significant increase in risk of blood clots in those who receive it (Pinho, 2021). In the short window of time between the news stories and the announcement, though, the damage was already done. Individuals in both France and Germany were reluctant to take the AstraZeneca
vaccine and Ireland’s immunization authority paused AstraZeneca vaccine usage (Rosman, 2021). The stakes for fostering trust in this vaccine are particularly high given that much of the world is expected to utilize the AstraZeneca vaccine for their efforts; AstraZeneca is the biggest initial supplier to COVAX with supply to 142 countries, many low and middle-income, underway (AstraZeneca, 2021).

The speed of information spread in the digital age is particularly powerful. 4.33 billion people have access to the internet, over 80% of internet users in the U.S. search online for health information, and false and substandard information travels more quickly than factual information (Vosougi et al., 2018; Chen et al., 2018). Thus, the discrepancy between scientific findings and news coverage can have significant consequences for behavior and policy.

Media misrepresentation of scientific studies confuses the public and erodes trust in science. It has been established in the literature that conflicting public health messages can lead to public confusion and mistrust in the authority of science (Nagler, 2014). Resultantly, mixed messaging on the efficacy of masks, or the safety of vaccines in news sources can lead the public to question the utility of wearing a mask and getting vaccinated.

The Fox News reporter who referenced the same erroneous conclusions of the Danish mask study did so to uphold anti-mask sentiments. There are state legislators who have desired to avoid mask mandates, or have prematurely shut down such mandates before epidemiologically indicated by public health experts (Abbot, 2021; Allen, 2020). One can imagine such a legislator capitalizing on this misreporting for political aims. Similar risks exist for policymakers without an agenda but earnestly searching for evidence to guide policy.

There is an inherent tension between the processes and duties of science and journalism that makes it more challenging to translate between the two. Public health professionals have a responsibility to the public to bridge this gap, to make their own voices and knowledge heard, and to make a vigorous effort to do so immediately, as research suggests that retracting or “correcting” statements do not thoroughly repair the damage inflicted by earlier reports of misinformation (Tsafiti et al., 2020; Ecker, 2017). We believe that a combination of the rigorous use of science interpreters in newsrooms and careful consideration of the initial research by journalists themselves, along with close collaboration with public health professionals can improve the health of our country in this critical time. The obligation of public health learners and practitioners includes remaining accessible and transparent to journalists and fact-checkers, particularly given that the goal of our science is to advance the health of the public.

We also encourage readers, public health professionals or not, to think critically whenever learning about a study, especially a controversial one, through news outlets or social media. Though academic articles are often hidden behind paywalls, their abstracts are widely available for the public to read with a simple Google search and often clearly state the research’s conclusions.

Spreading accurate information is of utmost importance as we continue to fight the COVID-19 pandemic. We call on our public health colleagues, as well as readers of the Harvard Public Health Review, to take an active role in encouraging news outlets to act responsibly, think critically, and perpetuate only the truth. The nation’s struggle with mask adherence serves to foreshadow the challenges to come regarding vaccination hesitancy, vaccine safety, and the continued need to mask and social distance. These hurdles can be overcome, though, as long as our voices are heard.

References


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