COVID-19: The use of fear to control the pandemic

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THE NATURE AND PERCEPTION OF COVID-19

The ongoing Coronavirus disease 2019 (COVID-19) pandemic has had a profound social and economic impact globally [1]. In retrospect, the widespread fear generated by the current pandemic is not so different from that of other pandemics not so long ago. Although fear is typically associated with misinformation and panic, which usually worsens the situation, the fear of COVID-19 can be used to prevent more infections if combined with accurate public health information.

There have been several large-scale pandemics in the 21st century, two of which are comparable to the COVID-19 pandemic: the 2003 SARS pandemic and the 2009 H1N1 pandemic. These pandemics were all caused by respiratory, droplet-transmitted viruses and elicited similar symptoms and behaviours from affected people [2-4].

Understandably, the topic of COVID-19 is filled with controversy: at the time of this writing, the recent discovery of the virus means that new research is constantly being generated, and their findings may contradict previous research. Furthermore, the drugs used to treat COVID-19, remdesivir and hydroxychloroquine, are still experimental, meaning they are at the centre of much scrutiny and often controversy. More importantly, news about COVID-19 is highly politicized, with many media outlets heavily criticizing the United States (US) President Donald Trump's promotion of hydroxychloroquine and the efficacy of the drug itself [5-9], as well as turning the topic of quarantine from one of science to one of politics [10-12]. This overflow of contradicting information lends itself to uncertainty and controversy.

As of now, the fear of COVID-19 is widespread, and behavioural changes related to the pandemic have been reported across the globe. Surveys in China, the United Kingdom and the US on the current pandemic have all

shown behavioural changes among a significant proportion of people, such as increased frequency of handwashing and avoidance of public places [13,15]. In a survey in mainland China, it was found that 56.5% of people "always [washed their] hands with soap" [13], and in a survey conducted in the US and UK, 92.6% and 86.0% of people respectively surveyed believed that handwashing "help[s] prevent catching an infection with the new coronavirus" [15]. There have also been other observed behaviours, with only 37.8% and 29.7% of people surveyed respectively in the US and UK believing that "consistently wearing a face mask is highly effective in protecting [them] from getting infected with the new coronavirus" [15], and some even exhibited an aversion to Chinese people and places [14-15].

THE ORIGIN OF COVID-RELATED FEAR

The COVID-19 panic likely stems from two factors: a perceived danger of the pathogen and a lack of consistent information presented to the public.

To determine how dangerous a pandemic is, its impact must be considered. One way that impact can be measured is by examining the number of infections and deaths due to the disease using the US as a case study. According to the Centers for Disease Control and Prevention (CDC), the 2003 SARS pandemic infected 8098 people worldwide, killing 774 people, while only 8 people "had laboratory evidence of SARS-CoV infection" in the US [2]. The 2009 H1N1 pandemic was estimated to have infected 60.8 million people with around 12500 deaths [3]. As of June 2020, COVID-19 has infected far fewer people at 5 million cases compared to H1N1, it has already killed more than 10 times as many people in the US [3,20], with infections and deaths still on the rise [20]. In addition, large-scale lockdowns were never applied during the SARS or H1N1 pandemics in the US, unlike the COVID-19 pandemic [21]. The greater case fatality rates caused by the

current pandemic and the strength of government response may be contributing to the heightened perception of risk.

The information available now is anything but certain, or consistent, across publicly trusted sources. Take social distancing as an example: it seems that nobody can fully agree on the implementation of this important preventative measure. The World Health Organization website suggests a one-meter distance [20], yet the CDC mandates a two-meter distance between people [4], and there are studies that suggest even larger distances [24-25]. This lack of consistency is further exacerbated by social media panic and mainstream media controversies. A study by Oxford University Press concluded that social media panic travels faster than the COVID-19 pandemic [10]. This also affects mainstream media, with a prime example being the case of Donald Trump, who was criticized by mainstream media for promoting hydroxychloroquine to treat COVID-19. Many media articles have acted as if hydroxychloroquine was completely ineffective, with some even calling it a “false hope” [8-9], even though the drug is currently undergoing clinical trials and its effectiveness in treating COVID-19 has not yet been determined. With the lack of consistent information, the average person essentially regards COVID-19 as an unknown topic, and the fear of the unknown is a well-known fear with evolutionary origins [22]. The prevalence of this fear means that the average person, who does not have a thorough scientific background [26-29], will become confused and panic, or will stop believing in known public health agencies because of their political biases [30]. Indeed, a study on the Lancet stated that “uncertainty and perceived exaggeration were also associated with a reduced likelihood to implement the recommended behaviours” [19], which was also observed during the influenza pandemic in 2009-10 [31].

THE USE OF FEAR TO CONTAIN THE COVID-19 PANDEMIC

Paradoxically, the fear of COVID-19 can still be used for a good purpose. While maladaptive fear--the distrust of public organizations and hoarding supplies--is counterproductive for the effort to contain the pandemic, adaptive fear can be used to reduce the number of infections. In a 2010 study, Bish & Michie (32) found associations between perceptions of susceptibility and the likelihood to carry out protective behaviours such as handwashing and wearing a mask during the 2008 H1N1 pandemic. [32] Therefore, it is likely that a

greater perception or risk--and a greater fear of infection--will invoke more preventative measures from the public, and possibly slow down the rate of infection when guided by consistent information. A study supported this with authors stating that a lack of consistent information can lead to distrust in crisis response organizations and that consistently and accessibly distributed information can help people protect themselves and make informed choices [19].

An objective, consistent information campaign through various media platforms to remind people how to protect against COVID-19 could be an effective way to inform the public on the ongoing pandemic. In terms of spreading information, one might say such measures are already being implemented: there are many news articles covering the spread of the pandemic, popular platforms such as Google and YouTube contain easily accessible links to information on COVID-19, and many academic journals have their own COVID-19 subsection. Yet the links on websites are not easily found and only appear when viewing related content. Furthermore, these links often direct the user to general, often-politicized news, instead of academic journals or findings. Google Scholar can be a good source, and one way to enhance the spread of its information is putting short infographics on the front of the aforementioned popular websites. To ensure their accuracy, each infographic can be peer-reviewed, much like the process of publishing an academic essay. The “Thank You Coronavirus Helpers” series of sketches is a good example, being an interesting and unobtrusive way to link people to information on the pandemic, and it would be ideal if they linked to academic databases, such as Nature magazine’s COVID-19 repository. Another approach can be promoting articles from websites that hire scientific writers to interpret findings from scientific articles or focus entirely on scientific content, at the forefront of Google results for searches concerning COVID-19. Furthermore, a continuous effort is needed in the distribution of information: for example, the Google main page no longer shows “Thank You Coronavirus Helpers” drawings or even a link to remind everyone of ongoing updates surrounding the pandemic. Although current information may not be consistent due to ongoing research, this does not preclude clear messaging and directions. With clear instructions for the public to follow, they can better understand the overall situation, lessening the number of infections via the enforcement of safety precautions.

The fear of COVID-19 may turn out to be a tool that can

be used to slow down the infection rate, but it needs to be used carefully. Further studies should aim to optimize health communication and minimize distrust towards public health organizations. In this effort to inform the public about the disease, the mainstream media has the potential to play an instrumental role in preventing more infections.

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