



EDITORIAL

Combatting Pseudoscience Amidst the COVID-19 Pandemic**Gading Ekapuja Aurizki**

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Amid the COVID-19 pandemic, it is natural for people to want to know about the causing virus, its transmission, prevention, the government's response and other relevant information through the information channels. In the past, before science developed, people considered the plague as a manifestation of the anger of the gods. Along with the times, people began to open up to science. While there are still some superstitious societies, most believe in scientific arguments.

Unfortunately, high expectations and enthusiasm for science are often not accompanied by a critical attitude and increased interest in reading. There is a tendency for people to cherry-pick the information. Cherry-picking can distort knowledge due to bias in the selection of information sources. This can lead people to fall into pseudoscience or "bad science"—to borrow Ben Goldacre's term. Both pseudoscience and bad science are things that sound scientific but are not or have a scientific basis but are interpreted haphazardly.

During the COVID-19 pandemic, much scientific-sounding information and analysis are milling about. Some of the initial examples are the interpretation of the COVID-19's low case fatality rate (CFR), claims of traditional ingredients to prevent COVID-19, herd immunity discourse, to the vaccines adverse effects. COVID-19 was initially considered harmless with a low CFR, some even equating it with the common cold. However, instead of being similar to the common cold, COVID-19 is feared to have an impact like the 1918 flu pandemic, which claimed estimated millions of lives worldwide because of its swift spread (Petersen et al., 2020).

In addition, when the COVID-19 outbreak had not been detected in Indonesia, there was a view that Indonesians were immune to coronaviruses because of a diet rich in spices. Some researchers even took advantage of this moment to promote their findings of ingredients that can ward off the coronavirus by increasing the immune system. However, so far, there has been no publication about the results of testing for these materials, specifically for COVID-19 patients, and how significant the effects are when compared to other materials that already exist. So, the claim is only a claim.

In the era of information technology, when most people have been out of superstition, worrying is not the clash between science and mystical views but between actual science and bad science or pseudoscience. In his book *The Death of Expertise*, Tom Nichols wrote that one could not become an expert just by reading a lot. Without having the correct analytical method, ordinary people will not process information into knowledge. That is why any information circulating must be sourced from experts in the field. This makes the statement about COVID-19 spreading in the community very dynamic. Therefore, it is essential to keep updated with the latest information from trusted sources, as well as a crosscheck to other sources before concluding.

References

Petersen, E., Koopmans, M., Go, U., Hamer, D.H., Petrosillo, N., Castelli, F., Storgaard, M., Al Khalili, S. and Simonsen, L. 2020. Comparing SARS-CoV-2 with SARS-CoV and influenza pandemics. *The Lancet Infectious Diseases*. 20(9), pp.e238–e244.