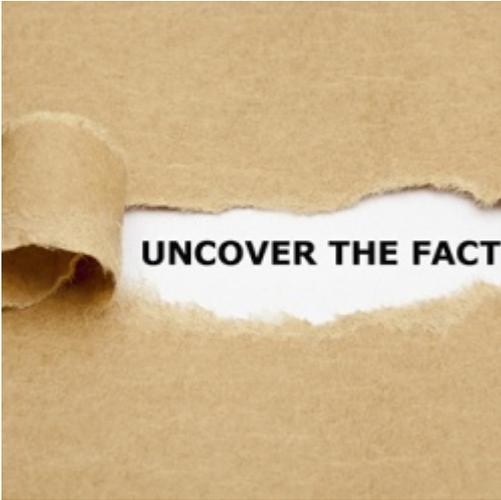


Misinformation Lingers 'Like a Haunting Refrain'



By *Chuck Dinerstein, MD, MBA* — August 15, 2017



Courtesy of Ognian Mladenov [1]

[Misinformation lingers in memory](#) [2]: Failures of three pro-vaccination strategies were recently published in PLoS. The article attempts to assess three communication strategies designed to promote vaccinations and decrease “vaccination hesitancy.” The study was small; 120 university students in Italy and Scotland given one of three informational messages about vaccines. The first restated a vaccine myth alongside the corresponding vaccine fact; the second presented the same information in a graphic format; the third presented vaccine information in a more fear driven mode e.g. showing children who had suffered from diseases because they had not been vaccinated. The student participants were tested on a 5 point scale (higher being a greater belief in misinformation) regarding vaccines’ possible side effects, belief in the linkage with autism and their hesitancy to obtain vaccinations. Here is what they found:

- Vaccines causing autism: fact versus myth showed the greatest change in attitude
- Vaccines’ side effects: fear driven messages showed the greatest change in attitude
- Vaccine hesitancy: facts versus myths was a stronger message than fear

Did I mention, that all three of these instances resulted in a greater belief that vaccines cause autism, had deleterious side effects and led to an overall greater hesitancy to be vaccinated? That’s right, given information that refutes myths and misinformation leads to stronger belief in the misinformation!

The authors concluded in their discussions that:

- None of these educational modes was effective in reducing vaccination hesitancy and that further study was warranted.
- “Presumably, a golden strategy capable of overcoming all the intricacies of setting people

straight, regardless of their basic beliefs and/or temporal shifts, does not exist.”

- "Public information campaigns may instead benefit from tailoring different, simultaneous, and frequent interventions to increase the likelihood of corrective messages' dissemination and acceptance. Ideally, corrective strategies should be directed at the precise factors that may influence vaccination decision-making and impede vaccine uptake... Successful interventions should, therefore, be targeted to differently “driven” vaccine-hesitant individuals."

The study's small sample size, exclusive use of university students and a preexisting lack of intention to be vaccinated made the findings more an exploration than a conclusion. That said, the study did suggest that resistance to vaccination has multiple underlying causes, and may serve as an introduction to the growing study of ignorance, which is called agnotology.

Agnotology suggests at least three underlying reasons for ignorance. The most traditional reason for ignorance is the absence of knowledge, and this can be changed by providing information—the driving force behind all of the vaccination messages. The second cause is that ignorance is dynamic, not so much a knowledge vacuum, more an issue of selective attention. After all, we cannot attend to everything, so we necessarily choose this over that. The participant's response to fearful messaging may well reflect selective attention. And finally, ignorance can be a strategic ploy to hide information of great value – the land of trade and State secrets or to hide information regarding intent - conspiracy theorists and of course, Big Tobacco is a poster child for this type of manufactured ignorance. This is the traditional home of the anti-vaxers.

Knowledge is often characterized as light illuminating the darkness of ignorance. This study suggests, and the field of agnotology seeks to explore the fact that, while nothing is faster than the speed of light, darkness is already there and may be faster.

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