
Inoculation against vaccine hesitancy?

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Over a short time, science has produced effective vaccines against COVID-19, but has yet to fully answer the question of how we can persuade as many as possible to be vaccinated.



Photo: Einar Nilsen

One morning in 1962, Roald Dahl sat at his daughter Olivia's bedside. She was recuperating after a bout of measles. 'How do you feel?' he asked. 'I'm tired', she answered. The next morning she was dead [\(1\)](#).

Twenty-four years later, the by then world-famous children's author wrote a letter to his local health authorities, asking parents to use the vaccine that had meanwhile become available [\(1\)](#). Dahl appeals to their emotions, both in describing Olivia's illness and by referring to parents who refuse to vaccinate their children as criminals. But he also appeals to some kind of good sense: according to the author of *Charlie and the Chocolate Factory*, the likelihood of a child suffering serious adverse effects from the vaccine was lower than that of them choking on a bar of chocolate [\(1, 2\)](#).

What are the effects of such approaches? Now, three years after the WHO declared vaccine hesitancy to be one of the world's ten most prominent health hazards and almost two years into the COVID-19 pandemic, our knowledge of how to counter opposition to vaccines remains limited, and the experts continue to disagree [\(2\)](#). There is a lot to indicate that scare tactics do not work [\(3–5\)](#). On the contrary, they may have the opposite effect: in a study from 2014, parents who were shown pictures of children sick with measles became *more* convinced that the vaccine could trigger autism than they were before they saw the pictures [\(6\)](#). It may be that the parents' fear is channelled towards what they know (autism), rather than towards a disease they have never seen before (measles) [\(2, 4\)](#). Shaming people (calling them criminals) does not change their opinion, but only serves to put them on the defensive [\(3, 5\)](#). Facts, such as the example with the chocolate bar, take us part of the way, but not all of the way to the goal [\(3–5\)](#).

The research on vaccine uptake is in fact full of surprises: in a recent study on parental attitudes to the HPV vaccine, it was shown that mothers who had a history of cervical cancer were no more likely than other mothers to let their children be vaccinated [\(7\)](#). Thus, it is perhaps unsurprising that even sick family members are not enough to convince people to take the COVID-19 vaccine [\(8\)](#).

«There is a lot to indicate that scare tactics do not work»

The reasons for declining to take the vaccine can be divided into roughly three groups: concern for adverse effects, erroneous ideas about the way the vaccine works, and belief in conspiracy theories (such as the view that the disease is a scam, or that the vaccine is purely a money-making ploy) [\(9\)](#). The latter group is the hardest to convert, even during the ongoing pandemic. No matter what they hear, they will perceive it as confirming the core message of the conspiracy theorists: that the vaccine is harmful, that COVID-19 is harmless, and that the authorities cannot be trusted [\(10\)](#). Behind this message lie well organised groups that are helped along by social media [\(10\)](#). And behind the interpretation of what others perceive as logic and reason, lie psychological mechanisms that we all share: when we are convinced of something, we tend to seek confirmation that we are right, rather than being curious about alternative explanations.

The largest group of sceptics, however, consists of those who are uncertain, worried or want to wait and see (3, 4, 11). This is the group that we must try to reach – systematically and with strategies adapted to a heterogenous target group. Health workers can use motivational interviews that ask open questions and seek to identify what the uncertain person is afraid of (9). This, and small drops of argumentation that contradicts the message of the conspiracy theorists, as a kind of inoculation against the information that people may obtain from other sources (3, 9).

All those who have chosen not to take the COVID-19 vaccine so far should be met with openness and a standing offer of a first dose. Not necessarily because this is morally the right thing to do, but because this will give us the greatest chance of success.

LITERATURE

1. Roald Dahl. Death of Olivia. November 1962 - death of Roald Dahl's daughter Olivia. <https://www.roalddahl.com/roald-dahl/timeline/1960s/november-1962> Accessed 27.12.2021
2. Kupferschmidt K. The science of persuasion. *Science* 2017; 356: 366–9. [PubMed][CrossRef]
3. Olson O, Berry C, Kumar N. Addressing Parental Vaccine Hesitancy towards Childhood Vaccines in the United States: A Systematic Literature Review of Communication Interventions and Strategies. *Vaccines (Basel)* 2020; 8: 590. [PubMed][CrossRef]
4. Rosenbaum L, Malina D. Escaping Catch-22 - Overcoming Covid Vaccine Hesitancy. *N Engl J Med* 2021; 384: 1367–71. [PubMed][CrossRef]
5. Guide to COVID-19 vaccine communications. A practitioner's guide to the principles of COVID-19 vaccine communications. University of Florida 2021. <https://covid19vaccinescommunicationprinciples.org/the-principles/emotions/> Accessed 29.12.2021
6. Nyhan B, Reifler J, Richey S et al. Effective messages in vaccine promotion: a randomized trial. *Pediatrics* 2014; 133: e835–42. [PubMed][CrossRef]
7. Worsham CM, Woo J, Zimmerman A et al. Association of Maternal Cervical Disease With Human Papillomavirus Vaccination Among Offspring. *JAMA Netw Open* 2021; 4: e2134566. [PubMed][CrossRef]
8. Jena AB, Worsham CM. Facts alone aren't going to win over the unvaccinated. This might. *New York Times* 21.12.2021 <https://www.nytimes.com/2021/12/21/opinion/vaccine-hesitancy-covid-omicron.html?referringSource=articleShare> Accessed 27.12.2021
9. Gorman JM, Scales DA, Gorman SE. Expert opinion in mental disorder: Why is acceptance of the COVID-19 vaccines so problematic? *Pers Med Psychiatry* 2021; 25-26: 100072. [CrossRef]

10. Ahmed I. Dismantling the anti-vaxx industry. Nat Med 2021; 27: 366.
[PubMed][CrossRef]

11. Opinion. Hvem er de som ikke vil ta vaksine?

<https://opinion.no/2021/09/hvem-er-de-som-ikke-vil-ta-vaksine/> Accessed
29.12.2021

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