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Commentary

To talk better about vaccines, we should talk less about vaccines

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1. Introduction

Vaccines are facing a reputation crisis.

The Internet and social networks are a fertile ground for the decrease in vaccine confidence. This has caused an increase in vaccine hesitancy and has jeopardized vaccination programs in some contexts [1]. A wide variety of communication strategies have been studied and implemented to fight the decrease in vaccine confidence and maintain high vaccination coverage. In such strategies, scientists have often been the only actors.

In the present opinion article, we look at vaccine communication and compare it to commercial advertising. We analyze the characteristics of the typical communication on vaccines, and explain why it can be described as product communication and defensive communication. We explore how defensive communication (e.g. debunking and fact checking) may not be effective, according to recent studies on information dynamics on the web. We suggest that new models for vaccine communication should be explored and experimentally evaluated, focusing on messages that highlight the positive values of immunizations - thus evoking positive emotions. Finally, we advise the adoption of communication techniques that integrate different promotional methods and we suggest the involvement of dedicated multidisciplinary teams to improve the effectiveness of vaccine communication.

2. Product communication and defensive communication

The most common ways to communicate about vaccines can be described as *product communication* and *defensive communication*.

Among the published studies on vaccine communication, a randomized controlled trial [2] explored the efficacy of 4 classic strategies for measles, mumps and rubella vaccine promotion: (1) debunking, (2) disease description, (3) a narrative on the diseases and (4) images of sick children. None of the interventions resulted in a significant increase of parental intent to vaccinate. While debunking is a kind of defensive communication, the rest of the strategies tested in this trial can be defined as different examples of product communication. *Product communication* focuses solely on the features of a product: it describes the product and its function. It includes product awareness information,

product-specific details and information about its cost. Vaccine promotion has usually been focused on vaccines, their safety, their effectiveness, and on the diseases they protect from. On the other hand, communication against vaccines is always centered on emotions (fear and rage, mainly).

In addition, misinformation is a problem. In 2013, the World Economic Forum listed the spread of misinformation on the Internet among the top global threats to societies [3]. More recently, in a paper published by the High Level Expert Group (HLEG) for the European Commission, disinformation is identified as a source of potential harm for citizens and society, and a threat to “democratic values that shape public policies in a variety of sectors, such as health, science, [...] and more” [4]. The document proposes a multidimensional approach to provide a response to misinformation. The focus is mainly on *reacting* to disinformation, promoting fact-checking and other measures to *counter* the risk of disinformation. Fact-checking and debunking are two typical examples of *defensive communication*, which is about reacting to the public opinion on your product, in particular when facing a reputation crisis. Debunking means containing emotions through science and tackling fears through data. In certain contexts, defensive communication might actually reassure public health professionals and have some positive impact, but it does not address negative emotions towards vaccines, which cause hesitancy.

3. Debunking is not enough (and might even be counterproductive)

As a matter of fact, although rational and honorable, defensive communication has often been ineffective.

Is there any evidence supporting the ineffectiveness of debunking?

Some groups have studied how information (and misinformation) spread through social networks - which, in the end, are the context in which most of the vaccine debate takes place.

Social network users are organized into tribes. In other words: two definite, highly polarized communities exist online, the pro-vaccine and the anti-vaccine. Recent studies show that there is virtually no overlap among the two communities [5]. Moved by confirmation bias, users select information that adheres to their systems of beliefs, and the two communities may act like echo-chambers. Debunking resonates only in the scientific echo-chamber and is not able to cross its border. Anti-vaxers have

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a higher engagement with the community compared to pro-vaxers, and anti-vax pages generate most of the debate. Moreover, fake news has a more powerful diffusion potential compared to accurate information of any category [6].

4. Change the message and “forget the vaccine

Simply focusing communication on product and defensive information may not be enough – the medical community needs to consider new information strategies to motivate the public.

In a recent advertisement, a luxury car is promoted through an unexpected and powerful claim: “Forget the car”. You should not buy that car because of the car itself, but because of all the values that it represents, which go well beyond the good and the way the buyer uses it. And it is values that leverage emotions.

“Forget the vaccine” means conducting an effective communication of a brand, that (apparently) forgets the product itself and focuses on the product’s “metaphysical” aspects. This concept is at the base of certain theories of advertising [7]. As a matter of fact, until now, this strategy has seldom been adopted for vaccine promotion. Classically, the public is reassured on vaccine safety and educated about its efficacy. Numbers are explained, but numbers do not drive decisions [8].

We propose a shift of this mindset. What would happen if we stopped inviting the public to rationally concentrate on data, and rather stimulated their emotions through positive messages?

The image of a child can evoke a sense of vulnerability. The image of a sick person can evoke fear and anguish. The story of an adult that has accomplished his or her dreams – thanks (also) to vaccines, that have allowed for a healthy growth – has the power of evoking a sense of strength, a positive value.

We should start focusing on how vaccines impact on a person’s life, not exclusively in clinical terms, but through the invisible values they generate.

This would not mean ignoring vaccine specifics going forward.

Using again an example taken from the automobile world: airbags can very rarely be a risk for the driver. Adverse events due to airbag openings are possible. Though, airbags still protect drivers, saving millions of lives, and are included in the basic version of any car.

No car company would explain the effectiveness, the safety and the rare risks of airbags when promoting a car. This information is, anyway, always reported in any instruction manual.

5. Change the format: integrated communication

Along with a change of contents, we should also consider a change of format.

Vaccine communication has often been managed by health professionals, who have traditionally taken care of the choice of contents and formats. The traditional format has been, in the last years, mainly written text on websites.

Integrated marketing communication is an approach for marketing campaigns, that uses different, coordinated promotional methods, which are intended to reinforce each other.

Starting from a concept (in our case, the positive emotional values of vaccines), the message is spread through different channels (TV, web, social media, radio, etc.) and using different formats (images, videos, infographics, etc.).

In order to apply this kind of strategy to vaccine communication, a stronger collaboration between scientists and communication experts is required. Multidisciplinary and interdisciplinary

collaboration are mandatory conditions for innovating vaccine communication.

Two specific cornerstones of this format change are: (a) Search Engine Optimization, a process aimed at increasing the number of visitors to a webpage by improving its visibility on search engines result pages, and (b) Social Media Marketing techniques, exploiting the potentials of social networks for promoting messages mainly through emotional content.

6. Conclusion

While continuing to provide evidence on the efficacy and safety of vaccines, we propose a reframing of vaccine communication that focuses on the positive, emotional values of immunizations.

This change of perspective requires a strong opening to multi-disciplinary collaboration. New, possibly disruptive information strategies can arise from the cross-fertilization among clinicians, vaccine researchers, behavioral scientists, journalists and communication experts.

Since evidence on the effectiveness of this approach are currently missing, we suggest that a new research agenda is set on investigating the effectiveness of vaccine promotion strategies based on positive messages and on integrated communication. The challenge of this research field is that one size does not fit all. Therefore, potential differences among subgroups and in different national and subnational contexts should be considered and investigated to better tailor communication strategies.

We believe that the proposed approach could give a new boost to vaccine confidence, in the interest of the community at large, and of children and their future.

Conflict of interest

None reported.

Additional contributions

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