



Suppressing Scientific Discourse on Vaccines? Self-perceptions of researchers and practitioners

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Accepted: 31 March 2022

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Abstract

The controversy over vaccines has recently intensified in the wake of the global COVID-19 pandemic, with calls from politicians, health professionals, journalists, and citizens to take harsh measures against so-called “anti-vaxxers,” while accusing them of spreading “fake news” and as such, of endangering public health. However, the issue of suppression of vaccine dissenters has rarely been studied from the point of view of those who raise concerns about vaccine safety. The purpose of the present study was to examine the subjective perceptions of professionals (physicians, nurses, researchers) involved with vaccines through practice and/or research and who take a critical view on vaccines, about what they perceive as the suppression of dissent in the field of vaccines, their response to it, and its potential implications on science and medicine. Respondents reported being subjected to a variety of censorship and suppression tactics, including the retraction of papers pointing to vaccine safety problems, negative publicity, difficulty in obtaining research funding, calls for dismissal, summonses to official hearings, suspension of medical licenses, and self-censorship. Respondents also reported on what has been termed a “backfire effect” – a counter-reaction that draws more attention to the opponents’ position. Suppression of dissent impairs scientific discourse and research practice while creating the false impression of scientific consensus.

Keywords Vaccine · Suppression of dissent · Censorship · Public health · Scientific ethics

Introduction

Vaccines have been considered one of the most controversial areas in the field of medicine almost from the advent of vaccination in the eighteenth century (Bragazzi et al., 2017; Johnston, 2004). The current global COVID-19 pandemic has inflamed

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the debate over the safety and efficacy of vaccines. The official position on vaccines, including those newly developed against COVID-19, adopted by health organizations and most physicians, is that vaccines are safe, effective, and essential for reducing infectious diseases and death, while adverse reactions are exceedingly rare and marginal (Andre et al., 2008; Offit, 2010; Rimmel, 2021).

While those who question the safety and efficacy of certain vaccines, usually referred as “vaccine opponents” or “anti-vaxxers,” are portrayed by vaccine advocates as charlatans and conspirators who spread “fake news” and threaten public health (e.g., Arif et al., 2018; Marco-Franco et al., 2021; Jolley & Douglas, 2014; Lewandowsky et al., 2013), vaccine critics argue otherwise. Some scientists, healthcare professionals, and citizens question the benefits attributed to vaccines, claiming that the mortality from infectious disease had already decreased significantly prior to the widespread use of most vaccines (Halvorsen, 2007). Others point to risks and adverse events following vaccination that have led to diseases and even mortality among the vaccinated (e.g., Habakus & Holland, 2012; Palmer, 2019). Some researchers point to methodological deficiencies, biases, and even fraud in clinical trials aimed at testing vaccine safety, driven by economic considerations of pharmaceutical companies (e.g., Cernic, 2018; Doshi, 2013; Gesser-Edelsburg & Shir-Raz, 2016; Götzsche, 2020; Jorgensen et al., 2018).

Some researchers have also pointed to tactics of censorship and suppression of scholarly dissenters – researchers and physicians – who raise legitimate scientific concerns in the field of vaccines (Elisha, et al. 2021; Martin, 2015a; Vernon, 2017). Science requires open debate and challengers of the status quo. In practice, however, scientists and physicians who oppose the accepted orthodoxy experience oppression that manifests itself, among other things, in blocking their ability to conduct research and thus contribute to debate by presenting different points of view. Therefore, as some scholars noted, suppression of critical voices in science violates scientific principles, prevents a substantive discussion in a controversial field, and may establish a pattern of unfair conduct that diminishes public confidence in science and medicine (Angell, 2009; Cook et al., 2007; Delborne, 2016; Drazen & Koski, 2000; Friedman, 2002; Martin, 2015a; Vernon, 2017). Given the importance of sustaining an open scientific discussion surrounding the issue of vaccines, the purpose of the present study is to examine the subjective perceptions of researchers and practitioners involved with vaccines, through research or medical practice, in relation to the negative response they encounter due to their positions about certain vaccines, their response to it and its potential implications, expressed in, among other things, the “backfire effect.”

The suppression of vaccine dissent

The suppression of vaccination dissent relates to actions taken against individuals or researchers who raise questions about the efficacy and safety of certain vaccines— actions that deviate from a fair and open debate (Martin, 2015a; Vernon, 2017). Methods of suppressing individuals include spreading of rumors, vilification, harassment, reprimands, deregistration, and dismissal (Martin, 1999a). Methods of suppressing research data include censorship, denying funding and grants and denying access to research materials. Other suppressive tactics include exerting pressure

on various organizations and institutions to prevent scientists, doctors and others who raise concerns about vaccine safety and efficacy from presenting their opinion (Martin, 1999b).

Most health professionals assume that vaccine opponents are mostly hysterical parents or members of anti-vaccination groups who promote conspiracy theories and spread “fake news” about vaccines, thereby endangering science and public health (e.g., Jolley & Douglas, 2014; Lewandowsky et al., 2013). However, there are researchers and healthcare professionals who raise scientifically grounded concerns and criticisms about certain vaccines, and in response they experience exclusion, are mis-quoted, denounced as “anti-vaxxers” and are even threatened with job dismissal and/or revocation of their medical license (Vernon, 2017; Elisha et al., 2021).

The issue of suppression of dissent has been recognized in other controversial areas in science, such as AIDS, environmental studies, and fluoridation (e.g., Delborne, 2016; Kuehn, 2004; Martin, 1981, 1991, 1996), but has received scarce attention in the field of vaccination. The very few studies that deal with this are those of Martin (2015a) and Vernon (2017), describing cases of researchers, physicians and civic activists who were personally and professionally attacked, ostracized, and threatened with dismissal due to their critical stands on vaccines. Martin (2015a), who has extensively studied the issue of suppression of dissidents in various fields of science, has noted that the ways in which those who oppose vaccination are attacked have not been seen in any other area related to the safety of medical procedures.

Delborne (2016), who has examined the phenomenon of scientific suppression through the conceptual framework of scientific controversy, argues that scientific suppression can be understood as a particular form of impedance that is unfair, unjust, and contrary to the standards of scientific conduct. The difficulty, however, is in establishing that suppression is occurring; what appears to be suppression from a particular point of view may be perceived from another as a justified and necessary policing of the boundaries of legitimate science. Martin (1999a) acknowledges this and argues that when some of the following criteria are met, it is a strong indication that suppression is occurring: (1) Timing of actions (if the suppressive action occurred soon after a publication or controversial statement); (2) Unusual venue or source of criticism and complaints (when criticism is raised in ways that go against commonly accepted standards in the field or originate from unusual or anonymous sources); (3) Double standard test (whether the dissident is treated differently from non-dissidents of similar standing); (4) Vested interests (whether the person or organization raising the concern has a financial or other interest in the outcome); and (5) Pattern of similar adverse actions (similar negative actions taken against other dissidents in the same field).

The consequences of suppression can be severe: a tarnished reputation, blocking of research opportunities, and sometimes even the destruction of a career. Although the target of suppression suffers the most, the impact can be much broader. Suppression can send a powerful signal to other scientists that it is dangerous to conduct research on certain topics or even talk about them. This “chilling effect” (Kempner, 2008) can lead to neglect and even distortion of certain areas of research. For example, Kempner (2008) interviewed scientists from the National Institutes of Health (NIH) who became embroiled in a political attack on federally-funded research, find-

ing that half of them removed controversial words from their research proposals and about a quarter completely avoided controversial topics. Researchers' characteristics, such as persuasion, courage, and confidence, as well as professional status (e.g., tenured), can be a mediating factor, but suppression still has adverse effects not just on the researcher but on science more broadly (Delborne, 2016).

Censorship and the boomerang effect

Scientific censorship refers to the suppression of scientific and public discourse, publications, and other forms of expressions of unwanted ideas and positions, which may be perceived as a threat to powerful bodies such as governments and corporations (Martin, 2015b). Not infrequently, however, attempting to discredit dissenters may lead to a "boomerang effect," referred to by Jansen and Martin (2004, 2015) as "censorship backfire," which occurs when public exposure of attempts at suppression attracts more attention to, sympathy for and support of the suppressed and their position.

In the field of vaccination, signs of a boomerang effect can be found in the growing number of groups expressing dissenting views on vaccines on social networks such as Facebook and Twitter (e.g., Betsch & Sachse, 2013; Larson et al., 2014; Tafuri et al., 2013). Studies examining the growing global phenomenon of "vaccine hesitancy" usually link it with the activities of such "anti-vaxx" groups (e.g., Blume, 2006; Melovic et al., 2020; Rosselli et al., 2016; Stahl et al., 2016; Zimmerman et al., 2005).

Vaccine proponents claim that vaccines have been able to eradicate many infectious diseases and warn that non-immunization could lead to morbidity and new outbreaks, as happened with measles and pertussis (Feikin et al., 2000). Vaccine critics, on the other hand, to support their claims, refer to documented evidence of fraud, manipulations and criminality employed by the pharmaceutical companies and in vaccine clinical trials (e.g., Cernic, 2018; Gesser-Edelsburg & Shir-Raz, 2016; Destefano et al., 2004; Götzsche, 2020; Habakus & Holland, 2012; Holland et al., 2018; Palmer, 2019). As for the potential risks associated with vaccines, critics point to the risk of morbidity and even death linked with some of the routine vaccines given to children. For example, in 1998 the first rotavirus vaccine, Rotashield, that was licensed in the USA was removed from the market following severe side effects developed by vaccinated children (Glass et al., 2004). Some researchers have pointed to safety issues with other vaccines, such as the human papillomavirus (HPV) vaccine (Gatto et al., 2013; Vernon, 2017) and the MMR (Measles-Mumps-Rubella) triple vaccine (Hooker, 2014). Recently, the Philippine Department of Justice filed criminal charges against health and regulatory officials and officials of Sanofi Pasteur following the deaths of many Philippine children due to the Dengue virus vaccine, Dengvaxia, which was marketed despite defendants' alleged awareness of vaccine risks (Arkin, 2019).

The latest vaccines developed against COVID-19 re-inflamed the controversy over vaccine safety. While proponents point to a decline in morbidity rates due to immunization, opponents warn that the long-term adverse events are still unknown since the Emergency Use Authorization (EUA) was granted to the companies after a rela-

tively short period of clinical trial. They also point to side effects that were revealed following the vaccination rollout, such as thrombocytopenia/coagulation disorders and myocarditis (AAPS, 2021; Pottgård et al., 2021). These adverse events even led to the FDA's and the CDC's recommendation to suspend the use of the Johnson & Johnson COVID-19 vaccine due to reports of blood clots in patients receiving the shot (McNamara, 2021), although this recommendation was later rescinded.

Although the mere existence of censorship does not necessarily validate the claims of the suppressed, labeling the opponents as “anti-vaxxers” to delegitimize them does not advance the discussion on this controversial issue, nor the understanding of the point of view of the dissenters. Labeling and shaming can be used as a means of social control aimed at deterring those who are considered “deviant” by those in power in society (Becker, 1963; Lemert, 1951). However, when negative labeling and shaming are used, it leads to further exclusion and rejection. Such a negative approach may produce groups of social “outcasts” whose resistance is likely to intensify (Braithwaite, 1989).

The present study expands on our previous study on the retraction of scientific papers (Elisha et al., 2021) to examine a broader range of suppression tactics among a wider range of professionals involved with vaccines (doctors and nurses, in addition to researchers). Note that we do not intend to express any position on the benefits or risks of vaccines, but rather, to give voice to those who perceive themselves as subjected to censorship and other suppressive tactics due to their controversial research or professional opinions on vaccine safety and efficacy. As Martin (1999a, 112) notes, “The social study of suppression is not a study of virtue, but rather a study of the exercise of power.”

Method

The study is a qualitative one (Aspers, 2009), which aims to identify internal perceptions of those who have experienced the phenomenon under question.

Participants

Participants are researchers and practitioners recognized as critical of vaccines, some of whom are active in the field and are publicly labeled as “anti-vaxxers.” The sampling method used is a purposive sample, i.e., a non-probabilistic sampling according to which a deliberate selection is made of individuals who could teach us about the phenomenon under study. The final number of participants is determined following a sense of saturation due to repetitive information (Creswell, 2013).

Study participants include 26 professionals involved in vaccines (15 men and 11 women), whether in research and/or practice, from different countries around the world (e.g., Israel, USA, UK, Spain, Italy, Finland). Of these, 16 are well-established researchers (MD, PhD) from a variety of fields of knowledge (e.g., immunology, microbiology, biochemistry, public health); 7 are practicing doctors with MD degrees (family doctors, pediatricians, homeopaths); and 3 are nurses who vaccinated children at the HMO or in a public hospital. We included nurses in the study for triangu-

lation purpose, i.e., to provide an additional perspective to the arguments of doctors and researchers with relation to vaccination. To preserve the respondents' anonymity, details that might lead to their identification were omitted.

Research Tool and Procedure

The study is based on in-depth interviews using a semi-structured interview guide. The questions focused on the respondents' stance towards vaccines, events they experienced due to their stance and their views on its wider implications. The study was approved by the Bar-Ilan and Hebrew University IRBs.

Recruitment was done in several ways. To recruit researchers who are known for their critical stands towards vaccines, we located their contact information through a Google search. As for researchers whose papers were retracted, we located their details through a search in the PubMed database (we identified 24 retracted papers in the field of vaccines, all of which indicated safety issues with one or more vaccines, though not necessarily the same one). The other respondents - researchers, doctors, and nurses - we reached by using the "snowball" method. The criteria for inclusion in our study was: being a professional involved with vaccination, via practice or research, with a critical view on vaccination. In all cases, the researchers' and medical professionals' views on vaccination were informed by their research results and/or clinical observations among patients. None of the people we interviewed formed a critical view on vaccines due to *a priori* political, moral or religious objections, such as the use of aborted fetal cell lines in the development and culturing of some vaccines.

The initial contact with the respondents was through an email in which we explained the purpose of the study and asked for their consent to be interviewed, noting that we will protect their confidentiality. Of the 24 retracted papers we located, only eight researchers agreed to be interviewed; nine did not respond to our inquiries, three refused on the background of concern for their careers; in four cases, we received an error message stating that the email address was incorrect. As for the other respondents (seven doctors and three nurses) - all those we approached agreed to be interviewed.

The interviews were conducted by the authors via Skype, Zoom, telephone or face-to-face, and lasted about an hour and a half on average. Each respondent was asked to sign an informed consent form after being informed that they could skip any questions they did not want to answer and assured that their confidentiality would be maintained and no details would be revealed that could lead to their identification. The interviews were recorded and transcribed.

Data analysis and coding (performed by the first author) was based on identifying the key issues that emerged from the interviews, while classifying and grouping them into meaningful categories. The interviews and themes derived from them were read and approved by all authors. We assured the reliability and validity of the study by applying different methods (Creswell, 2013): The analysis of the data was discussed by all of us as an expert peer group; different sources of data served as triangulation of the data; and we provided "thick description" of the findings.

Findings

Study participants reported being subjected to a variety of tactics perceived by them as intended to suppress, silence, and censor them due to their critical and sometimes oppositional position on vaccines. The main suppression tactics as perceived and reported by these researchers and doctors include publication of defamatory statements against them, paper retractions, denial of research grants, calls for dismissal and in some cases, summonses to hearings, suspension of their medical license by the country's Ministry of Health, and self-censorship (refraining from expressing critical opinions about vaccines for fear of the repercussions). Family doctors (GPs) and nurses also reported pressure from the Ministry of Health to vaccinate patients.

Defamation

Respondents who published papers, books, or on-line posts or articles about the risks of certain vaccines reported being subjected to negative publicity perceived as defamatory on various websites. Some pointed to what they viewed as an organized system designed to locate and attack critical publications on vaccines, aimed at undermining their authors' credibility and delegitimizing them by referring them as distributors of "fake news," "misinformation and conspiracies that endanger public health:

On Facebook, on media or websites, they say defamatory things about me. But I never answer them. I ignore these things completely. I say, you cannot just say it. You must prove it. They cannot prove it ever. So, I do not answer to people who cannot prove on paper what they say. (researcher)

It's a really structured mechanism, a real method: there is the XXX Association that monitors such publications and takes care to complain, the Ministry of Health is forced to investigate the complaint and then it publishes against you, and there is the journalist who writes about it. Here is a triangle that aims to destroy the name of the person who writes against, who reveals the truth... (doctor)

Some doctors working at a private clinic held that these negative publications were activated by proxies of the authorities, with the aim of harming their reputations and livelihoods. From their perspective, however, not only had they done nothing wrong, but they provided their patients with complete information on vaccines, leaving it at their discretion how to act:

They follow my posts on the site and look to discredit and harm anything I do. Apparently, they realized I did not break any law, so let us hurt his good name, his livelihood. Because they do not want the public to know the truth, that the vaccines have not been properly tested, that there are a lot of problems with them, and they have very problematic substances - aluminum, adjuvants, preservatives, polyamide - whose safety has not been tested by intravenous injection on babies. (doctor)

Online censorship

Some respondents claimed the existence of a kind of “big brother” on the web, who oversees and censors unwanted publications in the field of vaccines, to preserve the dominant pro-vaccination position. As one researcher noted:

“There is somebody or something, a sort of big brother that keeps an eye on these publications. If there is one that is disturbing, they go for it.” (researcher)

A notable example of this is Wikipedia editors, who, according to some respondents, remove from publications that indicate safety issues with vaccines from the site entirely.

There is another phenomenon called supervised entries in Wikipedia, it is something amazing. Supervised value is a value that is overseen by the industry.... If I try to add a line in Wikipedia about research against the measles vaccine for example - it will be removed immediately ... Who censors Wikipedia? The answer is simple: the industry pays money to scientists and academics to enter information, track, and erase if necessary. (doctor)

Respondents stressed the violation of democratic values involved in the censorship of dissenting positions, while insisting that their arguments are well backed up, contrary to what is alleged against them.

I think it is a serious phenomenon like no other, it is a fatal violation of democracy, of freedom of expression. The fact that they are trying to censor a person who writes on his private website and defame him and threaten him to remove what he wrote, when everything is true. They are not able to point out where there are mistakes if there are any mistakes at all. It is extremely serious, and it is reminiscent of dark regimes like North Korea, Iran and China... (doctor)

Paper retraction

Researchers whose papers pointing to vaccine safety issues were retracted, claimed that while the official reasons given by journal editors for the retraction mainly refer to “methodological flaws” and/or “undeclared conflicts of interest”, they pointed to politico-economic rather than scientific considerations, arising from conflicts of interest. According to them, the purpose of the retractions is to silence critical voices, due to commercial and research connections between the journals and/or the editors with pharmaceutical companies that manufacture vaccines.

One day after it was published, we received messages from our colleagues that the paper was retracted personally by the journal editor, whose relationship with the pharmacological companies is well known... After several weeks, we

received comments on how bad this paper is. Obviously, he [the editor] contacted his people and asked them for negative opinions... (researcher). There is a true organization that works in stopping any science that talks about vaccine safety and does not say "everything is wonderful." Their intention is clear: they first oblige editors to remove papers, I guess with a pure mafia style, and then blame the authors saying, "not a reliable scientist, he has papers removed." (researcher)

Researchers referred to the retraction of their paper as another means of censoring dissenting opinions:

I think it completely violates the university's principles of open uncensored research. I mean it's just censorship. I mean, it's blatant censorship of a topic, because of my perspective... there's no other way to understand this, except for content restriction on my work. I mean, I was publishing in peer reviewed journals, I was being called to testify in states around the country... It was perspective related. If I had done pro-vaccine slanted, it would be fine. (researcher)

Denial of Research Grants

Some researchers also reported difficulties in raising funding for research on the topic of vaccine safety, which they had not encountered before when seeking funding for other topics, and they believed this was an additional means of censoring research that calls into question vaccine safety. To overcome this barrier, some turn to alternative sources of funding, such as philanthropy:

It is mission impossible, to put in the grant application that you want to do this [to explore the safety of a particular vaccine]. You will never get any grant. So, you have to have some maybe private funders. Maybe if some rich people have their families or relatives with this, injured, maybe they will become interested and they will sponsor. But I do not expect any grant from any official fund that will fund this investigation. (researcher)

One well-established researcher we interviewed was no longer able to get grants for research on *any topic* after publishing a paper that raised potential concerns about the safety of vaccines:

I used to get all my funding from the normal sources - governments, charities, our research council industry. I do not get any of that funding anymore. All our research funding now comes from philanthropy... Now I do not even bother putting in applications to these organizations. We need to try to get funding through philanthropy to continue... (researcher)

Subsequent to our interview, the university administration also suspended his funding from philanthropic sources.

Calls for dismissal

Some doctors and researchers reported attempts to bring about their dismissal by sending letters of complaint to their workplaces. In most cases, these attempts failed, following legal actions taken by the accused. Respondents noted that these attempts undermined them and made them take extra care when it came to vaccines:

I've had to use a lawyer in the past to protect myself. I used one of [the country's] finest employment lawyers. It cost me a lot of money... So, right now I'm in my office. I've got my lab. I've got my team. We can still do science. So, we just have to make sure that we don't give them that opportunity to bring me before any sort of disciplinary procedure or have me removed Because they can just do it regardless. (researcher)

I could name several scientists who have risked their careers to question some of the safety data on vaccines and published it in peer reviewed scientific journals and come under the same kind of efforts that I have to discredit and lose their jobs. Fortunately, there are some universities that will stand behind scientists despite what government and industry might try to do to uproot them. (researcher)

Hearings

Some doctors reported being summoned for a hearing by their country's Ministry of Health and medical licensing boards, following publications they made on vaccine safety issues or their attempts to provide alternative treatments to "vaccine victims" at their clinics. At the hearing, they said, they were threatened that if they did not remove these publications or cease offering alternative treatments to "vaccine victims," their medical license would be revoked. Some of the doctors agreed to do so, mainly out of fear for their reputation and livelihood, while others refused:

They said, how do you say you treated thousands of "vaccine victims," there is no such thing... I said, read the vaccine's leaflet, where it says that there are vaccine victims. I was shocked by the superficiality; I need to teach them that there are vaccine victims?! It is ridiculous... It annoys them that I'm not afraid of them, unlike other doctors they have forced to sign all kinds of documents to stop them ... They can try to revoke my license, but I will of course appeal. (doctor)

I was summoned to a hearing at the Ministry of Health following an article I wrote... To date, I have invested a lot of money out of my own pocket for attorneys for hearings and administrative petitions against the Ministry of Health... Beyond the economic damage, there is also damage to my name that I have been working on for many years... (doctor)

Suspension of medical license

For some doctors, the hearings were just a part of a process of professional repression, which eventually resulted in their medical licenses being suspended and/or revoked. According to them, however, they acted within the law and did nothing wrong, and hence, the suspension was unfair and intended mainly to deter other doctors and suppress others with dissenting views on vaccination:

They cannot fire me, and they cannot prevent my promotion, but they can shame me and revoke my license, but of course I will appeal ... what will they gain from it? Deterrence of other doctors. And they manage to deter because they are threatening. Today there are almost no doctors who are willing to talk about the risks of vaccines... (doctor).

Now, the Medical Board in the usual sense, their duty was to protect the public from dangerous physicians. Dangerous physicians in the past were physicians who were like drug abusing, working under the influence, or sexually molesting their patients. Those were the two big categories. We need to get those physicians out of circulation. I was neither of those things. I was merely a threat to the status quo. (doctor)

Self-censoring

Some respondents also noted that they refrain from expressing their critical position on vaccines, both to colleagues and health officials, for fear of being marked as “vaccine opponents” or “anti-vaxxers,” which might harm their career. To support their concerns, they recounted cases of physicians who expressed their critical views on vaccines and were subsequently summoned to a hearing or disciplinary committee by their country’s Health Ministry or licensing board and their careers harmed.

There is a kind of self-censorship. I will not talk about it in public or with other doctors so that I will not be “marked”... I am afraid to speak in public, I’m just at the beginning of my career and I do not know where things I say will end up... I know of doctors who expressed their opinion against vaccines and were immediately categorized as “vaccine opponents.” They were persecuted, summoned to a hearing, a disciplinary committee, did not get a job in [HMO] clinics... (family doctor).

Today it is very, very scary to say it, that I am against vaccines... If they know about my position against vaccines, it can be terrible and horrible, they can fire me, absolutely. You cannot work as a nurse in a primary care clinic and say you are opposed to vaccines, you cannot. (nurse)

One nurse noted that she also exercises self-censorship at social gatherings such as parent meetings in schools, for fear of harming her children’s social life, while noting that the attitude towards “vaccine opponents” has worsened in recent years:

The situation today is terrible, really depressing. Once when my eldest was little, I could say freely that I did not vaccinate him but today, with my two little ones - no way. Many times, I hear at a parents' meeting in kindergarten: "I hope there are no anti-vaccine lunatics here." So, I dare not say anything against vaccines. I'm afraid they will not accept my son and put a label on him... So, you are silent and say nothing... (nurse)

Vaccination monitoring and rewards

Some family doctors also point to the existence of systematic monitoring, control and supervision that measures them according to the vaccination rates in their workplaces, while using "stick and carrot" tactics. On the one hand, clinics exert a great deal of pressure to vaccinate as many patients as possible and on the other hand, they reward those who meet the vaccination targets (e.g., with free meals, money, promotions).

The Ministry of Health is putting pressure on the HMOs' doctors to vaccinate. It happens mostly in the fall and winter months, in early September, and it disappears in March ... A clinic that succeeds on a weekly basis receives an award, breakfast somewhere ... A doctor who is ranked high in the vaccine index, is considered a good doctor. (family doctor)

In two clinics I have worked at so far, there has been pressure to vaccinate children because they are a factor today. Clinics measure the rate of vaccination and accordingly determine how good we are or bad... If the clinic does not meet the target, a lot of pressure is applied. (nurse)

The reward approach is currently applied also to Coronavirus tests designed to detect COVID-19 infections:

There are incentives for vaccination. For each vaccine, doctors here receive about 6 euros. We are measured numerically... Most of the vaccines that GPs give are against flu and pneumonia, but a similar financial incentive is given for each vaccine. There is also a monetary reward for Coronavirus tests. For each test money is received here... (family doctor)

Discussion

The purpose of the study was to explore the subjective perceptions of professionals involving with vaccines (researchers, doctors, and nurses) who hold critical views on vaccination, about what they perceived as censoring and suppression of dissent in the field of vaccines, their response to it and its potential implications on science and medicine. It should be noted, however, that we do not have an official figure on the extent of the phenomenon, although it is likely that this phenomenon goes beyond

our small sample of interviewees, since many medical professionals we interviewed are afraid to openly express a critical opinion on vaccines for fear of being perceived as “vaccine opponents” and harmed as a result.

The tactics of suppression reported by the researchers and doctors in our study refer to defamatory publications on websites; retraction of papers that pointed to safety issues with certain vaccines; denial of research grants; calls for dismissal; summonses to hearings or disciplinary committees by health authorities, suspensions of medical licenses, and self-censoring. These findings are consistent with arguments made in previous research on the science of vaccines (e.g., Cernic, 2018; DeLong, 2012; Gatto et al., 2013; Martin, 2015a, 2016; Vernon, 2017). Some respondents also claimed online censorship, where a kind of “big brother” supervises, edits, and removes entries on Wikipedia that indicate safety issues with vaccines. Family doctors and nurses also pointed to a systemic supervision aimed at measuring their compliance with the HMOs’ vaccination targets, while exerting pressure to vaccinate patients and rewarding those who meet or exceed the expected targets. It should be noted that most of our interviews took place in 2020 and the experiences they described were unrelated to COVID-19 vaccines.

Suppression of dissent is defined as one carried out by those with a higher power or rank in the hierarchy, against others below them, and one that cannot be justified by conventional scientific or academic criteria alone (Martin, 1981). The question raised here is whether these tactics constitute suppression of dissent or are legitimate and justified measures taken against those who are perceived as endangering public health.

Examining the criteria proposed by Martin (1999a), it appears that they do indeed appear to indicative of the suppression of dissent. First, the timing of the actions: the negative publications and summonses for disciplinary hearings occurred shortly after the researchers and doctors in our study published papers or made public statements indicating safety issues with vaccines. Second, the venue and source of the criticism: according to some of the researchers and doctors in our study, the anonymous complaints against them were sent directly to their workplace and/or to the Ministry of Health, instead of checking the facts first with the individual in question; Third, the double standard test: the researchers and doctors in our study have significant professional experience and reputation in their fields, with the attacks against them being far more severe compared to those taken against those making controversial claims in some other fields; Fourth, the vested interest criteria: study participants argued that some officials in health and regulatory organizations have research and commercial relationships with vaccine manufacturers, which influences their decision-making process in the context of vaccines; Finally, the suppression tactics reported by study participants are similar to those described in previous studies on the suppression of dissidents in the field of vaccination (Martin, 2015a; Vernon, 2017), as well as in other controversial scientific fields, such as AIDS, the environment and fluoridation (Martin, 1981, 1991, 1996). Some of our respondents said they were unaware of and had never seen similar reactions to other research they had published outside the field of vaccines.

However, the most hidden effect respondents point to is self-censorship. Some of the researchers and especially family doctors (GPs) and nurses in our study, noted

that they refrain from expressing their critical views on vaccines in public for fear of being labeled as “anti-vaxxers,” which they believe would harm their careers—something they claimed had happened to colleagues who did voice their concerns and as a result experienced actions like those reported here (e.g., defamation, summonses to a hearing, threats of dismissal, reducing employment and delayed promotion).

These findings echo the arguments made by Jansen and Martin (2004, 2015) on the repressive tactics serving powerful bodies for censoring unwanted ideas and positions. This includes reducing the value of the target (negative publications aimed directly at critics to undermine their credibility and legitimacy); reinterpreting the action (explaining the suppressive acts as a means of protecting the public from those who endanger them); using official channels (spreading pro-vaccine positions by the mainstream media while attacking opponents); and intimidating or rewarding key personnel (summonses to a hearing versus rewarding GPs and nurses who meet vaccination goals).

The immediate consequences of censorship and suppression, as reported by study participants, included damage to their reputations, blocking of research opportunities, and material damage to their livelihoods and careers. Suppression of dissent, however, has more far-reaching consequences, manifested in the violation of freedom of speech, violation of ethical principles of science, and neglect of important areas of research. Allowing an open debate on controversial issues and expressing diverse opinions are fundamental principles of science, while suppressing dissent leads to a narrow worldview that impairs public trust in medical science and public health (Cernic, 2018; Delborne, 2016; Martin, 2014, 2016; Vernon, 2017).

Another implication of the suppression of dissent is that it can backfire, resulting in greater support and sympathy for the suppressed. As Jansen and Martin (2004, 2015) noted, the targets of censorship may feel resentful, while repression of contrary positions may be perceived as a cover-up. Our research findings support this. Respondents’ remarks revealed feelings of injustice and unfairness, allegedly because they dared to state in public things that they argue are supported in the research literature regarding vaccine risks. Respondents also believed that they were “prosecuted” not out of health-related considerations, but rather politico-economic ones aimed at preserving the status quo on vaccinations by interested parties. These arguments are supported to some extent by studies that have indicated risks of certain vaccines (e.g., DeLong, 2012; Glass et al., 2004; Hooker, 2014; Hooker & Miller, 2020; Lyons-Weiler & Thomas, 2020; Palmer, 2019), as well as studies indicating manipulations and even fraud by vaccine manufacturers (e.g., Cernic, 2018; Holland et al., 2018; Götzsche, 2020).

Moreover, respondents argued that labeling them as “vaccine opponents” or “anti-vaxxers” is another means of suppression, while avoiding the possibility of a balanced and genuine scientific or civil discourse on vaccines. This claim echoes labeling theory (Becker, 1963), which refers to the definition of a behavior as “deviant” by powerful organizations such as governments, as a political label aimed at condemning behavior that threatens them. In practice, most public health policymakers refuse to argue with vaccine critics on the grounds that there is nothing to argue about, an approach that eliminates the possibility of criticizing by removing it from the boundaries of rational and legitimate discourse (Martin, 2016).

Suppressing and censoring opposing positions impairs scientific discourse. The world of medicine and science is full of many and varied players, uncertainty, power, money, politicization and conflicts of interest (e.g., Bekelman et al., 2003; Boyd et al., 2003; Cernic, 2018; Ferner, 2005; Frickel & Moore, 2006; Goldcare, 2013). Awareness of how the political economy of science, i.e., the ways in which money and other resources (reputation, institutional affiliation, political ties), plays a role in determining how and which information produced will be considered credible (Foucault, 1997), increases the chances of identifying and resisting scientific suppression. The influence of economic and political power does not necessarily undermine the credibility of a particular scientific claim or prove the existence of suppression, but it may serve as a reminder to carefully examine the various motives and influences involved in areas of controversy (Delborne, 2016).

With this recognition, scientists should strive for high standards of behavior to create good science that respects controversy and encourages healthy discussion (Delborne, 2016). This has become even more crucial during the current COVID-19 pandemic, which has again inflamed the debate between vaccine supporters and opponents, where good, trustworthy science is in need (Doshi, 2020, 2021). Instead of each side exaggerating its position, we call for a fair, open, and balanced discourse, for the benefit of public health and increased trust in science and medicine.

As a rule, censorship assumes that the public cannot be trusted to understand the issue in question and make sensible judgments and therefore should rely on the authorities without casting any doubts. However, various corruption cases that have been revealed over the years have led to a weakening of public trust in the authorities, as happened, for example, with the thalidomide disaster (Ridings, 2013), opioids (Jay et al., 2019) and the Dengue virus vaccine (Arkin, 2019). Censorship of opinions and ideas, which inevitably infringes on freedom of expression, further impairs scientific discourse and undermines public trust (Martin, 2016). We therefore join Delborne's (2016) suggestion to treat controversy in science not as a position or argument aimed at opposing scientific orthodoxy, but as a practice that encourages open discussions. The strategy underlying this approach is called "democratizing expert knowledge on vaccines," in which the information provided will be less dependent on the authority of experts and more on the intelligent reading and learning of the public (Delborne, 2016).

Our findings point to the alleged existence of suppression of dissidents in the field of vaccination. One possible implication of this is a violation of scientific discourse, which is fundamentally based on doubt, skepticism, and diversity of ideas leading to progress and innovation (Merton, 1973). Another adverse implication is the creation of a scientific consensus reached not through actual debate but by authorities taking control of public discourse and using improper means to promote experts who support their favored position while silencing those who express dissenting opinions (Skrabanek, 1990). When there is no legitimacy, it is easy to suppress and silence dissenters allegedly in the name of "good science," when instead it is a product of unscientific conduct. Of course, suppressing a scientific argument is not necessarily on par with stopping doctors from providing counsel to patients that runs counter to the advice of major medical associations, yet the experiences of the medical profes-

sionals we spoke with indicate that simply expressing their opinion openly with colleagues or the public, not with patients, was enough to provoke suppressive tactics.

The main limitation of the study is that the findings are restricted to the subjective perspective of those interviewed. It is possible that if we included more heterogeneous groups, we would have come to other interpretations. Therefore, we recommend conducting further studies among broader groups of professionals and policymakers involved with vaccines, to expand our knowledge and to suggest effective ways to mediate between vaccine dissidents and those with pro-vaccine positions. Another limitation is that we do not know anything about the incidence or prevalence of similar experiences among researchers and practitioners outside of our sample.

The main contribution of this study is in giving voice to the researchers and practitioners who raise questions, doubts, or criticism about vaccines, from their subjective point of view. This is in order to understand their concerns and motives for their opposition position, alongside the negative consequences of suppressing dissenters that may be expressed in the opposite outcome of receiving greater support and sympathy due to their apparent persecution. We hope the present study will contribute to a more open, fair, diverse, and transparent discussion in the field of vaccines, which may increase confidence in science and medicine.

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