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# Physician self-disclosure and vaccine-critical parents' trust: Preparing medical students for parents' difficult questions

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## Abstract

This paper introduces a controversial proposition emerging from an arts-based project on vaccine hesitancy: the relationship between physicians' self-disclosure and vaccine-critical parents' trust. Vaccine-critical parents are one of the most challenging noncompliant populations for health care providers, as these parents' health beliefs often dramatically deviate from modern medical guidelines. Medical students are not typically exposed to authentic vaccine-critical parents' concerns and expectations, leaving the students unprepared for the confronting questions the parents may pose in a face-to-face encounter. This study identifies two interrelated factors that influence vaccine-critical parents' level of trust in their health-care provider. First, the parents have a need for their physician to be present as a "whole person"—aware of and able to communicate their personal-professional motivations and beliefs by using associated self-disclosure. Second, the parents see a moral imperative both for themselves and their physicians to "do research" on vaccines; they expect their physician to be familiar with studies for and against their immunization recommendations. Ideally, the students would be exposed to authentic vaccine-critical parents' views, while simultaneously becoming familiar with and confident in expressing their professional moral compass.

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**Keywords:** Physician self-disclosure; Vaccine-critical parents; Trust; Dialogic writing exercise; Whole person

## 1. Introduction

Trust plays a pivotal role in decision making about vaccination, and distrust in a physician and his or her motives is a central inhibitor of vaccine acceptance.<sup>1</sup> In fact, the relationship between a vaccine-hesitant parent and his or her child's health-care provider is often

dysfunctional; parents frequently encounter frustration and anger from their child's health-care provider when expressing their wishes to deviate from the regular immunization program, thus further reinforcing their rejection. However, the trust of the particular group of vaccine-critical parents discussed in this study cannot be won by mere friendly behavior. They belong to a

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radical group with a preexisting interest in alternative medicine, and many of them question the rationale for and use of any vaccines.<sup>2</sup> In fact, while trust in a health-care provider is one of the key factors in parents' decision making about vaccination in general, these vaccine-critical parents may perceive unquestioned trust in others as passive and "the easy option." Thus, how trust can be built with such parents must be reconsidered.

One recognized way of increasing mutual trust in a health-care relationship is self-disclosure.<sup>3</sup> As it has a capacity to reduce the perceived power imbalance in the physician–patient relationship, something that radically vaccine-critical parents are sensitive about, it should be considered in medical training, as well.<sup>4</sup> Yet, despite these challenging predispositions, medical students currently receive little to no training on ways to increase trust through their patient communication, let alone with radical vaccine-critical parents. This paper hypothesizes that appropriate forms of physician self-disclosure might be called for to close dysfunctional gaps in communication with vaccine-critical parents caused by leaving their difficult questions unanswered. It suggests that, to be present as trustworthy "whole person" physicians, medical students should be prepared to respond to parents' difficult questions with appropriate self-disclosure.

## 2. Method and material

Arts-based approaches are now employed more regularly in medical education, for instance in medical students' perceptual and performance skills training. Furthermore, arts-based research methods are used in health care (education) research at all stages of inquiry, particularly in data collection or stimulation, and as a form of dissemination.<sup>5,6</sup> However, while many of such social science or humanities research projects employ an external artist to conduct the dissemination, this inquiry is founded in KK's discipline of the (performative and cinematic) arts. It builds on her research on the methodology of arts-based health research.<sup>7–10</sup> In this approach the artist-researcher is positioned centrally in medical education instead of observing it solely from the outside. The project thus extends the common interpretative role of artists and artworks in the academic research context.

This multi-year arts-based study explores vaccine hesitancy by developing two interrelated tracks: 1. mapping vaccine-critical parents' health beliefs, and 2. developing an educational intervention that simulates an encounter between a vaccine-critical parent and a medical student.

Nine vaccine-hesitant parents were interviewed by KK in the Netherlands and Finland. During these open-ended interviews, the parents were also invited to ask questions of the medical students. The interview data were categorized by themes and visualized in diagrammatic representations, then reflected upon through a collaborative meaning-making dialogue with a vaccine scientist.<sup>11</sup> The parents' selected viewpoints and home video footage, as well as the scientist's reflections, were employed in an educational video scenario.

The video scenario *Conversations with vaccine-critical parents* was pilot-tested with nine third-year medical students. The students formed one of the authors' (JL's) PBL tutor group, and the pilot was conducted as part of the Prevention study module and a vaccine-hesitancy case in particular. The intervention began with viewing the film, and it was followed by a semi-structured group discussion. Subsequently, the students were given a written homework assignment inviting them to answer the parents' seven selected questions, progressing from concerns about vaccine cocktails to questioning the seriousness of certain infectious diseases, and ending with a question challenging the motivations behind modern medicine altogether. The video and writing exercise stimulate the students to oscillate between various viewpoints, such as linking their own personal and clinical "registers", and considering the patient's perspective. These arts-based interventions, thus, aim to expand the students' awareness of the various voices and viewpoints that construct the medical dialogues, allowing them to recognize and question their own hidden values.<sup>12</sup>

The backdrop for the students' "whole person" physician simulation was provided in the preceding video scenario, in which the onscreen vaccine researcher provides a model of a professional who engages with the rhetoric of science and offers self-disclosure within the same case. The intention was to encourage the students to explore the "registers" from which they respond in the writing exercise. The students acknowledged that the scientist spoke with more than the voice of science—self-disclosing his attitudes toward death, for instance—and thought that this made him more approachable as a professional.

The study started from an intention to expose medical students to authentic vaccine-critical parents' views, hypothesizing that this takes place differently in a classroom than in an individual writing exercise that simulates a dialogue. Differences among students' responses in a group discussion and a writing exercise are explored in detail elsewhere.<sup>13</sup> In short, however, the group discussion revealed that several students held feelings of anger and frustration toward the parents. In

some cases, these negative emotions, as well as a single-minded focus on scientific knowledge, permeated their written exercises as well; one-third of the students failed to engage in a humane healthcare dialogue, ignoring either the patient as a whole person, their own professional role or both. The group discussion seemed to simulate a hospital break room setting in which one can freely vent their emotions and talk more openly with peers. The writing exercise, in turn, resembled a consultation room, ideally a space for acknowledging the patient's lifeworld,<sup>14</sup> one free from the negative projections of physicians. This paper, however, introduces an aspect of the study that arose in reverse order. Namely, during the data analysis of the students' written answers, an unexpected connection emerged between vaccine-critical parents' trust and physician self-disclosure. This connection deserves its own conceptual framework, which is presented in this paper.

Reflective or creative writing is increasingly being incorporated into medical education to encourage students to ask in depth what medicine is and why they do it and for whom.<sup>15</sup> While such writing assignments are typically worded by a researcher or an educator, the written homework in this study gave voice to vaccine-critical parents, inviting the student to answer their questions as a junior doctor.

The writing exercise involved the following parents' questions:

1. Why does my baby need tetanus and hepatitis B vaccines?
2. What is so serious about a mumps?
3. Why does my baby get so many vaccines at one time? In real life you never get five diseases at the same time.
4. Doesn't my child have the right to go through children's infectious diseases? These support mental and physical development.
5. Do I have to fight a war against my own body to save others?
6. I want to live as natural life as possible. How does "natural" relate to vaccination?
7. Is the purpose of life, according to medicine, to live as long as possible?

The students' written answers were coded through a qualitative text analysis according to their level of engagement with the parents' questions. The criteria used included used points of view; whether the student answered in the role of a junior doctor, addressed the

parent in the second person, and acknowledged the concern embedded in the parent's question; whether they used similar terminology, presented counter questions or expressed understanding of the parent's worries.

### 3. Theory

This study builds on aspects of Bakhtin's dialogic theory<sup>16</sup> and challenges the monologic qualities in narratives currently produced in medical education. It views doctor-patient interactions as characteristically polyphonic, diffused with the voices of all who are related to them.<sup>17</sup> This is in contrast with the "monological mindset" that often characterizes medicine<sup>18</sup> and that results in doctors ignoring the patient as a person.<sup>17</sup> The dialogical writing exercise is designed to stimulate an expansion of such a mindset. It is inspired by philosopher Martin Buber's word pairs "I-You" and "I-It" and how these may take place in a dialogue with a vaccine-hesitant parent.<sup>19</sup> This exercise simulates a face-to-face encounter with a patient through writing and, in particular, the acknowledgement of the parent as an individual. More specifically, the writing exercise invites the student to address the vaccine-hesitant parent as "You" instead of as "It," as a (clinical) condition. Additionally, the exercise distinguishes the physician as "I" rather than the "It" of the "voice of medicine," which manifests in communication that relies exclusively on the biomedical model.<sup>20</sup>

Research on types of self-disclosure is typically limited to various physical, mental, and personal experience statements and does not recognize the professional motivations and beliefs of health care providers—the narratives through which physicians expand on what drives them as caregivers and their views on the (meaning of) the human life cycle, for instance. This study, however, considers a type of self-disclosure that relates to a physician's moral compass and beliefs. There is, in fact, a need to explore forms of self-disclosure that would be meaningful, particularly when facing radically vaccine-critical parents. While some vaccine-hesitant parents solicit (self-)disclosures about what a health care provider him- or herself does as a parent, perhaps to breach the social distance and power imbalance between themselves and physicians,<sup>21</sup> *uninvited* stories of a physician's immunization decisions may actually backfire. For instance, self-disclosures such as "I vaccinate my children, and they're fine" are not necessarily experienced as trust-increasing but can come across as patronizing.<sup>22</sup>

## 4. Results

### 4.1. Vaccine-critical parents' request for a "whole person" physician

Physician self-disclosure invited by the parents in this study did not concern vaccinations, but moral choices in practicing medicine or raising children. In fact, several of the parents' questions and concerns in this study invited the physician to self-disclose in order to demonstrate that he or she was an independent "whole person" instead of a sterile automaton.<sup>23</sup> Most parents interviewed for this study admitted to placing trust in alternative health-care providers, and—to certain degree—destiny, instead of modern medicine. When asked what they would like to know about the future physicians, several parents invited the students to expand on their professional motivations and beliefs—inquiring, in a way, into their professional moral compass.

### 4.2. Self-disclosure in students' responses

In the written dialogue simulations with the parents, two of the nine students (both male) included self-disclosure in their answers, in that they described a personal life experience or a philosophical anecdote as part of their responses. Both these students, in fact, referred to an inspiring senior mentor or thinker whose words they strive to manifest as a practitioner.

The aspect of self-disclosure was neither stimulated nor anticipated in the students' homework. The connection between parents' trust and physician self-disclosure was established only after coding the students' answers to parents' questions that sought to engage with the "whole person" physician by expressing fundamental mistrust in the motives of medicine, for instance. The use of self-disclosure in students' answers was considered the most engaged mode of interaction, and a way to expand the voice of medicine into a whole person physician.

## 5. Discussion

While radically vaccine-hesitant parents are a challenging group of patients, their concerns and expectations for a health-care provider, as shown by this study, are neither unjustifiable nor unattainable for physicians. The vaccine-critical parents' questions imply a need for their doctors to be aware of and have a capacity to communicate their personal–professional motivations and beliefs. While two medical students

demonstrated such a "whole person" approach, the rest of the students refrained from disclosing any personal narratives and talked about the goals of medical practice in a distant manner.

As the parents' questions reached beyond expert knowledge of diseases and vaccines, they challenged the students to reflect on their values and motivations, such as their views on medical interventions and longevity. Thus, the written reflections should not merely be considered private narratives supporting the students' professional identity development, but also perspectives that may literally be requested during a consultation with a vaccine-hesitant parent.

In the film and writing exercise a Dutch father asked: "What is it about in the end? Is it about becoming as old as possible, or is it about the journey, the time that you have here, using it as meaningfully as possible?" The student replied:

*It is true that evolving medicine can give the impression that doctors just fight against nature. However, the purpose of medicine is to let people live the most meaningful life throughout their life cycle. Even if [their] life years do not increase, I would feel that I did well if my patient could live happily until the end. Johan Wolfgang von Goethe has said, "Every day, a man should listen to at least one small tune, read a good poem, see a fine painting and, if possible, say a few rational words." I think the most important thing a doctor can do is to enable this kind of functional capacity for the patient.*

By employing such philosophical quotes, the student engaged in a "whole person" approach, demonstrating that they not only acknowledged the perceived contrast between medicine and the parents' beliefs, but also considered themselves to be whole persons who were confident with—and open to sharing—their underlying beliefs.

Such self-disclosure may be meaningful even if a parent's question does not directly inquire about the physician's moral compass, and it can even be employed to challenge parents to reconsider their views. For instance, the student below decided not only to disclose one source of his life wisdom in his response, but also to invite the parent to elaborate on the rationale behind his decisions. Another Dutch-speaking father argued, "We let the child be ill because it will come out of it stronger." The student replied:

*In the army, one trainer once said, "There is no need for training misery; life will provide enough of it anyway." Children will have enough diseases to*

*“support” mental and physical development, and they don’t need to be subjected to all the diseases. Who decides which diseases your child really wants to go through?”*

When exploring meaningful forms of self-disclosure, immunization consultation cannot easily be compared with a consultation centered around a patient complaint, as the vaccine-hesitant parents are of the opinion that they don’t have a clinical problem of any sort (the problem is the physician’s). Thus when inquiring into specific forms of self-disclosure beneficial in dialogues with vaccine-critical parents, other encounters involving non-compliance may provide a useful comparison. However, one potentially related form of self-disclosure that patients in both primary and emergency care appreciate relates to their physician’s education and training background.<sup>24</sup> Such self-disclosure could be thematically connected with narratives of why someone wanted to become a caregiver in the first place, for instance, and how they see their relationship with the medical establishment, functioning as a bridge between self-disclosure about personal history and professional moral compass.

Lack of physician self-disclosure about their moral compass is, however, not the only aspect that contributes to vaccine-critical parents’ mistrust. Absent from this writing exercise, but equally important for the vaccine-critical parents’ trust, is the moral imperative for both the parents and physicians to “conduct research” on vaccines. Such parents not only doubt physicians’ motives but also perceive physicians to be ill-informed about vaccines as they have not done any “direct research on vaccination”.<sup>25</sup> This is related to the self-disclosure inquiries in that the parents don’t want their physicians to be mere advocates of governmental guidelines but to explain their personal connection to the advice they were giving. The parents’ motivation for such questions is thus to ensure that the physician is not blindly accepting the scientific narrative and is not brainwashed into following protocols. As the parents consider themselves individual decision makers, a health-care professional who demonstrates individual thinking generates more respect from them. In fact, in a relationship with a radically vaccine-critical parent, both the provider and the parent have the license, if not the urgency, to “do research” on vaccines. By “research,” the parents typically refer to familiarization with pro and con vaccine studies and discussions with other parents and health-care providers having a range of views on immunization. While many vaccine-critical parents are believers of the strong moral imperative of parents to become informed and advise other parents to do their research,<sup>25</sup> this study indicates that the parents expect the same of the health-care providers.

When invited to give advice to the medical students, one mother said:

*Inform yourself; don’t just take on what the manufacturers give you. Of course, they want you to give it because they want to make money. Inform yourself, and don’t believe everything you are told in school; start doing your own research.*

### 5.1. Study limitations

There are obvious limitations to this initial pilot experiment. First, the preliminary findings introduced in this paper call for more focused research; the study did not originally set out to explore the particular relationship between vaccine-critical parents’ trust and physician self-disclosure; however, this connection emerged unexpectedly from the data. Second, while it is likely that other vaccine-critical parents share concerns similar to those of the parents in this study, there is a difference between voicing them to a researcher and an actual encounter with a health-care provider. This may be the case especially because many parents have been previously discouraged from sharing their views, or their views have been ridiculed. Thus, when aiming for a clean slate after a dysfunctional relationship, the physician may need to encourage the parent to make physician self-disclosure inquiries.

## 6. Conclusions

Given that so many current encounters between physicians and vaccine-critical parents are counter-productive, it seems urgent to explore the parents’ concerns and ways of responding to them in medical education settings. The study suggests a need to train students in considering appropriate self-disclosure as part of their patient interaction. However, while improving relationships with such parents may require physicians’ authentic self-disclosure and familiarity with selected vaccine studies, the purpose should not be to learn to manipulate “difficult” parents’ trust just to persuade them to do what the physician wants.<sup>26</sup> Achieving trust is thus not merely a means, but the result of ethically justified public health activities.<sup>27</sup> In fact, instead of mechanically aiming to increase parents’ uncritical trust (were this even possible), medical education should, perhaps, explore the reasons for perceptions of how trustworthy or untrustworthy a student appears as an individual provider and as a representative of the medical system.<sup>28</sup> In addition to student’s refraining from displaying frustration, the



more confidence they have to express what their medical practice is motivated by, as well as to critically reflect upon their immunization recommendations, the more authentically and symmetrically they will be able to interact with vaccine-critical parents.

## Ethical approval

The Medical Education Ethics Committee in the Faculty of Medicine and Life Sciences in University of Tampere and the Ethics Committee for the Human Sciences in the University of Tampere approved this study.

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## Declarations of interest

The authors report no declarations of interest.

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