

VACCINE HESITANCY: MAY I REFUSE TO TREAT THE CHILD?

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ABSTRACT

Vaccination is one of the most effective public health interventions in the world, yet vaccine hesitancy is found in many primary care and paediatric practices. Social, cultural and historical factors influence parental decision-making about vaccination. The main concern usually revolves around the safety of vaccines and potential risks to the child. Ethically, the dilemma is between respecting parental authority and an intervention that is in the child's best interests. Some paediatric practices dismiss families who refuse to vaccinate their children, but this too is not in the child's interests. The ideal solution is dialogue and engagement with the family in the hope that they will ultimately change their mind.

Keywords: vaccination; vaccine hesitancy

INTRODUCTION

The World Health Organisation (WHO) has identified vaccine hesitancy as one of the top ten global health threats of 2019.¹ Vaccination is one of the most effective public health interventions in the world.² Many previously fatal infectious diseases have been eradicated through vaccination: smallpox worldwide and polio in many countries, including South Africa.^{2,3} Eradication of these infectious diseases relies on herd immunity: a high vaccine coverage rate in a population prevents transmission of infectious diseases from person to person.⁴ High vaccine rates protect not only vaccinated individuals directly, but also reduce transmission of vaccine-preventable diseases in a community, thus diminishing the risk for even unimmunised people.⁵

Despite the obvious beneficial effects of vaccination, the anti-vaccine lobbyists continue to disseminate misinformation, and increasing numbers of parents express concern about having their children vaccinated.⁶ In the United States more than 50% of the Bills proposed in state legislatures aimed at enabling increased access to vaccine exemptions.⁷ Primary-care health professionals and paediatricians frequently find themselves having to deal with unvaccinated children. Counselling the parents causes distress and discomfort, and may create conflict situations for the health professionals.

VACCINE HESITANCY: TERMINOLOGY

Studies designed to determine parental attitudes to vaccination have identified a number of different parental profiles.⁵ Dubè et al suggest that attitudes regarding vaccination should be seen along 'a continuum ranging from active demand for vaccines to complete refusal of all vaccines'.⁵ Parents who are hesitant

about vaccination constitute a heterogeneous group towards the centre of this continuum:

- they may accept some vaccinations;
- they may defer vaccinations; or
- they may accept vaccinations but express uncertainty as to whether this is the right thing to do.⁵

The Strategic Advisory Group of Experts (SAGE) Working Group on Vaccine Hesitancy, established by WHO in 2012, emphasised that 'hesitancy is a behavioral phenomenon which is vaccine and context specific'.⁸ The definition proposed by the working group states:

Vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite availability of vaccination services. Vaccine hesitancy is complex and context specific, varying across time, place and vaccines. It is influenced by factors such as complacency, convenience and confidence.⁸

'Complacency' means that there is not a perceived need for the vaccine; 'convenience' refers to access to vaccines; and 'confidence' implies a lack of trust in the vaccine or the provider.⁹

Bedford et al criticise the working group's definition, stating: 'The term "vaccine hesitancy" should instead only be applied to *those parents whose deliberations demonstrate something akin to indecision*.' This will include parents who have concerns about vaccines but allow their children to be vaccinated, and differentiates them from 'outright "rejectors" of vaccines'.⁹

CAUSES OF VACCINE HESITANCY

Many social, cultural and historical factors influence parents' decision-making around vaccination.⁵ Vaccine scares have

been propagated by the media, sometimes after they originated in the scientific literature. An example of this is the putative link between the measles, mumps and rubella (MMR) vaccination and autism – disproved by science – but still invoking fear in parents. This scare was kept alive by the popular media for many years. Another scare driven by the media was that of pertussis (whooping cough) vaccine safety, resulting in a significant increase in the number of pertussis cases.⁵ Dubè et al postulate that public health is culpable because of poor communication regarding vaccines and their safety. In addition, successful vaccination programmes have resulted in a reduction in vaccine-preventable diseases, with the result that the public does not recognise the risks inherent in vaccine refusal.⁵

Thomson et al described the '5As' or five major causes of under-vaccination: the challenges people face regarding Access, Affordability, Awareness, Acceptance and Activation.¹⁰ 'Acceptance' refers to vaccine hesitancy, whereas the other 'As' refer to practical problems.⁹

ETHICAL ASPECTS OF VACCINATION

The 'prevention problem' is 'a concern about the supposedly inequitable distribution of benefits and risks of harm resulting from preventive medicine's focus on population-based interventions'.¹¹ It states that preventive health measures such as vaccination are practised on healthy individuals (children in the case of vaccination), but the main benefits accrue to populations. These interventions are not without risk, and therefore the argument is that they are unethical. However, vaccination programmes create herd immunity, and herd immunity protects the community, the vaccinated individual and the unvaccinated individual. In other words: 'Risks are carried by individuals but both individuals and populations benefit where herd protection exists in the relevant population.'¹¹ Restating the argument in this way clearly shows that vaccination is an ethical endeavour.

Vaccine hesitancy or vaccine refusal poses an ethical dilemma for the primary-care health professional. The tension lies between respecting parental autonomy and beneficence. Babies and young children are the usual beneficiaries of national vaccination programmes. They are not autonomous and therefore their parents are their healthcare decision-makers. Parents are required to make the correct decisions for their children's health and welfare; they should have their best interests at heart. Should parents refuse to have their children vaccinated, that is clearly against their best interests and may result in harm to the child.

In situations where parents decide against a particular treatment for their child, and the healthcare professional believes that the parents' decision is not in the best interests of the child, they can override the parents. This may entail invoking the protective sections of the Children's Act (38 of 2005) or obtaining a court order, and generally applies to clearly beneficial or life-saving treatment. However, vaccination would not fall into either of these categories, which makes it impossible to compel a parent to have their child vaccinated.

The South African Constitution guarantees children 'the right to ... basic health care services', which includes immunisation.¹² How do children's rights to be vaccinated weigh up against the parents' rights to make healthcare decisions for their children? Generally, parents' rights to refuse to have their children vaccinated should be respected where the risk to the child is minimal. The community also cannot insist on compulsory vaccination for all because the risk that an unimmunised child poses to an immunised child is very small. The solution therefore is to ensure that they themselves are immunised rather than demanding compulsory vaccination for all.¹³

ADDRESSING VACCINE HESITANCY

Table I below sets out some of the factors influencing parental vaccine hesitancy.^{6,14}

General advice to the healthcare professional dealing with vaccine-hesitant parents includes starting discussions early, even during antenatal visits but certainly at postnatal appointments. A relationship of trust between the parents and the healthcare provider is important. Vaccination should be presented as the default situation. Counselling should include honest answers regarding potential side-effects of vaccination, but should also provide reassurance about the safety of vaccines and emphasise the dangers of vaccine-preventable diseases.¹⁵

TABLE I: FACTORS THAT INFLUENCE PARENTAL VACCINE HESITANCY^{6,14}

External factors

- Patient-provider relationship
 - A lack of trust in public health authorities
- School requirements
- Values/social norms
- Policies
- Media

Vaccine-specific factors

- Perceived vaccine efficacy
- Perceived vaccine safety
 - Too many vaccines
 - Complications such as autism
 - Vaccine additives (thiomersal, aluminium)
 - Overloading the immune system
 - Serious adverse reactions/long-term complications
 - May cause the child to become ill
 - Perceived disease susceptibility

Parent-specific factors

- Freedom of choice in healthcare decision-making for the child
- Lack of trust in pharmaceutical industry
- Ethical, moral or religious reasons
- Ethnicity/race
- Level of education
- Income
- Knowledge about vaccines and vaccine-preventable diseases
- Past experiences

DEALING WITH VACCINE REFUSAL

Managing families who steadfastly refuse to vaccinate their children can be very frustrating for the doctor. Some doctors believe that persistent vaccine refusal constitutes grounds for dismissal of the family from the practice. Surveys in the United States reveal that 29% of paediatric practices would dismiss

a family who refused some vaccines and 40% would require parents who completely refused to vaccinate their children to find another healthcare provider.¹⁶ In a study of paediatrician attitudes among American Academy of Pediatrics members, 85% of 302 responses analysed had encountered partial vaccine refusal and 54% had experienced refusal of all vaccines. In this study 39% indicated that they would dismiss a family who refused all vaccinations and 28% would dismiss a family for selected vaccine refusal.¹⁷

Justifications for dismissal include:

- the potential risk posed to other patients by the unvaccinated child;
- that vaccine refusal is a form of medical neglect;
- the excessive time taken to counsel the family to vaccinate their child; and
- potential liability of the paediatric practice should a vaccine-preventable outbreak occur.¹⁶

The downside of dismissal policies is that they may result in clustering of unvaccinated children at some practices, with the potential risk of disease outbreaks.¹⁶ In addition, the children may end up without a paediatric provider, which is obviously not in their best interests.

THE ETHICS OF DISMISSING FAMILIES WHO REFUSE VACCINATION

Most parents who refuse to have their children vaccinated cite concerns about safety and worrying that the vaccines are more dangerous than the diseases they prevent. (Other reasons are listed in Table I.) The 2005 study among American paediatricians determined that the main reasons for dismissal of families was a lack of shared goals and absence of trust.¹⁷ Dismissal occurs in one of two ways: either the doctor asks the family to find another healthcare provider if they continue to refuse vaccination for their child; or the receptionist screens prospective patients for vaccine refusal and then advises them to seek an alternative provider.¹⁸

A major ethical objection to dismissal of families who refuse to vaccinate their children is that it is not in the interests of the child patient. While acknowledging that promoting vaccination is in the child's best interests, refusing to see the child because of the family's vaccine hesitancy is also not beneficial to the child. In contrast, the better option would be to continue engagement with the family and try to change their minds about vaccination. Dismissal from a practice could be extremely upsetting and lead to poor trust in the healthcare system. In certain communities, there may not be other options to access healthcare, thus leaving the family to seek alternative healthcare.¹⁸

Dismissal policies do not change the exposure of vaccinated children to those who are unvaccinated as practices are not the only areas where children mingle. Dismissal policies also potentially increase the load on practices that are prepared to see vaccine-hesitant or refusing parents.¹⁸

Finally, Diekema argues that dismissal policies are against the doctor's professional obligations to the patient. He states:

While the 'right' to choose one's patients, reduce liability risk, and take action to increase revenue may be consistent with the common morality of the marketplace, they fail to attain the standards of the particular morality of the profession of medicine. These arguments fail to honor the professional obligation of a physician to place the needs and welfare of the patient before one's own.¹⁸

COUNTERING VACCINE HESITANCY

The doctor is the best person to try to persuade vaccine-hesitant families that vaccination is important and generally safe. Parents understand that doctors have the patient's best interests at heart. Engagement with parents should be respectful and honest, and initially aimed at determining the reasons for the parents' hesitancy. These reasons should be addressed, utilising the numerous credible print and online resources available (see Box 1). The risks of vaccination should be explained carefully, comparing them to the risks of the disease. Each vaccine should be discussed separately.

BOX 1: RESOURCES AND TOOLS TO ADDRESS VACCINE HESITANCY

https://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en/

http://www.nicd.ac.za/assets/files/NICD_Vaccine_Booklet_D132_FINAL.pdf

(Vaccine resources are listed in reference 14)

If the parents continue to refuse vaccination, this should be respected unless the doctor believes that the child is at risk of grave harm if not vaccinated. If that is the case, for example during an epidemic, then it becomes a case of medical neglect and the state's statutory agencies should be involved. The doctor may request the parents to sign a waiver of refusal to immunise their child if liability is a concern. Only in exceptional circumstances, where the relationship has been irrevocably damaged, could they be referred to another practice.^{19,20}

Healthcare professionals should engage with social media platforms to counter the vast amount of misinformation available to the public. To quote the editorial in a recent issue of *The Lancet Child & Adolescent Health*:

Vaccine hesitancy is threatening the historical achievements made in reducing the burden of infectious diseases, which have plagued humanity for centuries. Only a collaborative effort between paediatricians, family doctors, parents, public health officials, governments, the technology sector, and civil society will allow myths and misinformation around vaccination to be dispelled. If we fail, the future health of unvaccinated children and their communities will suffer greatly.²¹

CONCLUSION

It is difficult to manage vaccine hesitancy and vaccine refusal. The first approach should be engagement and discussion. If the parents persist in refusing to have the child vaccinated, the doctor may dismiss the family from the practice. Despite strong justifications for this action, it is not beneficial to the child, goes against professional obligations and ought not to be practised.

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CPD QUESTIONNAIRE

Earn 3 CPD points after you have read the journal by completing the following questionnaire online on the Cipla DNA Academy site www.cipladnaacademy.co.za. In order to get your points you need to be registered on the Cipla DNA Academy and log in directly at www.cipladnaacademy.co.za or following the link from the ALLSA website member section. There is only one correct answer and you will have only two opportunities to submit the questionnaire, so please check answers carefully. A pass of 70% or higher is required to gain 3 points. This CPD activity is for paid up ALLSA members.

PRACTICAL MANAGEMENT OF FOOD ALLERGY

1. *Choose one correct answer:* Food intolerance:
 - a. Is caused by IgE antibodies to food proteins
 - b. Frequently results in anaphylaxis
 - c. Presents with gastrointestinal symptoms
 - d. Is less common than true food allergy
2. *Choose one correct answer:* In diagnosing IgE-mediated food allergy:
 - a. History plays only a small role compared to blood tests
 - b. A positive blood test for IgE to a food means that the patient is likely to have anaphylaxis to that food
 - c. Blood tests for diagnosing allergy are as affordable as skin prick tests
 - d. Prick-prick testing using fresh foods or foods as eaten is valuable in assessing reactions
3. *Choose one correct answer:* Co-factors that may increase the likelihood of allergic reactions to foods or increase the severity of the reactions include:
 - a. Walking after a meal
 - b. Eating fried food
 - c. Eating late at night
 - d. Taking paracetamol

4. *Choose one correct answer:* In South Africa:
 - a. Allergy to PR10 proteins in fruits and vegetables is extremely common
 - b. Allergy to Profilins in raw nuts, melons, cucumber and carrot is common
 - c. Symptomatic sensitisation to soy allergens is common
 - d. Allergy to lipid transfer proteins (LTPs), triggered by sensitisation from plane tree pollen, is a rare cause of allergy.

EOSINOPHILIC OESOPHAGITIS (EOE)

5. *Choose one correct answer:* Which clinical presentation would be compatible with EOE in a toddler?
 - a. Vomiting
 - b. Food impaction
 - c. Diarrhoea
 - d. Skin rash
6. *Choose one correct answer:* Eosinophilic oesophagitis has an associated risk of which of the following
 - a. High mortality
 - b. Oesophageal malignancy
 - c. Food impaction
 - d. Hiatus hernia