

Vaccination decision-making problems among parents. Implications for the doctor–patient relationship

Problemy decyzyjne rodziców związane ze szczepieniami.
Implikacje dla relacji lekarz–pacjent

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Abstract

Currently, there is a heated debate in society around the topic of vaccination. The views of supporters and opponents of vaccinations clash, which is particularly visible on the Internet and social media. Clearly, the discussions are particularly lively at this time due to the challenge facing countries around the world to immunise large numbers of people with the SARS-CoV-2 vaccine in order to contain the raging pandemic. Although the dispute over vaccination undoubtedly contributes to an increase in public awareness of this issue, it also brings a large dose of chaos and disinformation. The discussion about vaccinations is often accompanied by a lack of substantive content and presentation of scientifically verified arguments, while mutual hostility, threats and dissemination of untrue information dominate. This situation negatively affects parents who, as a consequence, have a problem with making an informed decision about their child's vaccination. It is also a source of high stress: on the one hand, there is the obligation to vaccinate, while on the other hand, there is a fear of adverse reactions to vaccines, which is framed in psychology as the so-called approach–avoidance conflict and the phenomenon of cognitive dissonance. Many parents deal with this conflict by looking for information, e.g. by asking their paediatrician. However, they do not always find understanding with them either, which deepens their anxiety and frustration. The aim of the article is to draw attention to the above problem, to characterise the social discussion on vaccination, to emphasise the special role of the doctor and doctor–patient communication in this regard, and to provide recommendations on how to effectively conduct this kind of communication.

Keywords: childhood vaccination, parental decision-making, physician–patient relations

Streszczenie

Obecnie w społeczeństwie toczy się burzliwa dyskusja na temat szczepień. Ścierają się w niej poglądy zwolenników i przeciwników szczepień, co jest widoczne zwłaszcza w internecie i mediach społecznościowych. Co oczywiste, polemiki te są aktualnie szczególnie ożywione ze względu na stojące przed krajami całego świata wyzwanie związane z koniecznością zaszczepienia ogromnych rzesz ludności szczepionką przeciw wirusowi SARS-CoV-2 w celu opanowania szalejącej pandemii. Spór wokół szczepień, choć bezspornie przyczynia się do wzrostu świadomości społeczeństwa w tej kwestii, przynosi jednak także sporą dawkę chaosu i dezinformacji. Dyskusja cechuje się często brakiem merytoryki i zweryfikowanych naukowo argumentów – dominują obustronny hejt, groźby oraz rozprzestrzenianie treści niezgodnych z prawdą. Taka sytuacja negatywnie odbija się na rodzicach, którzy w konsekwencji mają problem z podjęciem świadomej decyzji dotyczącej szczepienia dziecka. Jest to dla nich źródłem silnego stresu, spowodowanego z jednej strony obowiązkiem szczepień, a z drugiej obawą przed niepożądanymi odczynami poszczepiennymi, co w psychologii jest odzwierciedlane przez tzw. konflikt dążenie–unikanie i zjawisko dysonansu poznawczego. Z konfliktem tym wielu rodziców radzi sobie, poszukując informacji m.in. u lekarza pediatry. Tam jednak również nie zawsze spotykają się ze zrozumieniem, co pogłębia ich lęk i frustrację. Cele niniejszego artykułu obejmują zwrócenie uwagi na ten problem, charakterystykę dyskusji społecznej na temat szczepień, podkreślenie szczególnej roli lekarza i komunikacji lekarz–pacjent w tym zakresie oraz przedstawienie zaleceń dotyczących efektywnego prowadzenia takiej komunikacji.

Słowa kluczowe: szczepienia okresu dzieciństwa, podejmowanie decyzji przez rodziców, relacja lekarz–pacjent

INTRODUCTION

In contemporary medicine, vaccination is considered to be the key prevention method for many diseases. It is the discovery of vaccines that allowed medicine to save humankind from many epidemics that would otherwise be a threat to the lives of individuals and whole societies. Although it might seem that these statements are beyond doubt, every year, the number of parents who evade compulsory vaccination of their children increases. The Polish National Institute for Public Health data show that the number of individuals who evade compulsory vaccination has significantly increased in recent years. In 2010, there were 3,437 such cases, in 2014, there were 12,681 cases, in 2018, there were 40,342 cases and in 2019, 48,600 cases were recorded⁽¹⁾.

There has been much controversy around the topic of vaccinations⁽²⁻⁴⁾; there are doubts concerning issues such as safety and efficacy of vaccinations, for example. Many parents declare that they are concerned about the possibility of adverse events following immunisation (AEFI) and delayed negative consequences of vaccination in their children (probably the most prominent example being the fear of autism). The efficacy of immunisation as long-term protection against disease is also being challenged. In addition, there are critical views of the official vaccination schedule for different vaccines and their consecutive doses. The issue of compulsory vs. voluntary immunisation of children has also been widely discussed. This article is not intended to resolve these issues; its aim is to present the psychological consequences of discussion (endless, it seems) on the subject of child vaccination and propose possible ways to improve the quality of communication between the doctor and parents and patients.

CHARACTERISTICS OF THE VACCINATION DEBATE

The debate on vaccinations takes place primarily on the Internet and social media. The views of supporters and opponents of vaccination clash during such discussions. Undecided individuals follow such disputes, who look for information in order to form their own opinion on the subject. In this study, parents' statements posted on Facebook profiles of popular Polish organisations dealing with the topic of vaccination with at least a few thousand followers (*Ogólnopolskie Stowarzyszenie Wiedzy o Szczepieniach STOP NOP, Fundacja Szczepienia – rozwiewamy wątpliwości, Czy szczepienia są bezpieczne?, Zaszczep się wiedzą*) were analysed. Based on the analysis of internet users' statements on vaccinations, the following conclusions can be made:

1. The debate on vaccinations often lacks substance: reliable and careful selection of arguments or references to credible and up-to-date scientific sources are rare. Instead, false and scientifically ungrounded information often appears, which is particularly dangerous.

2. Hostility, verbal aggression, mutual accusations and insults dominate exchanges between the so-called pro- and anti-vaxxers. Sometimes undecided individuals who search for answers and ask questions are vilified for their attitude since they have not joined either of the "only right" side of the argument.
3. Moreover, even valid arguments of the opposing side are ignored and opinions tend to polarize; as a result, vaccines are perceived as either definitely and absolutely good/safe or definitely and absolutely bad/harmful.
4. In the vaccine debate, emotional arguments are very often raised: primarily, according to many individuals, vaccination or non-vaccination is a tool used to cause harm, it is a threat to health and even lives of small children, and whole nations and societies. Supporters of vaccinations accuse vaccination opponents of putting individuals and groups at risk of dangerous epidemics, while the latter believe that pharmaceutical companies and individuals who support their interests (many pro-vaxxers and doctors for the most part) want to derive profit from the sales of vaccines at the expense of children's health and, at the same time, contribute to the deterioration of public health on purpose (as an additional source of income), which is supposed to result in depopulation. Appealing to emotions can also involve presenting gruesome photographs of children who are the victims of AEFI and equally frightening images of children suffering from dangerous infectious diseases and their complications.
5. Another characteristic feature of the debate is the presence of non-medical themes. Apart from economic and political arguments mentioned above (vaccination vs. non-vaccination as a clash of interest groups), there are also statements to the effect that vaccination involves supernatural forces, for example, a satanic or diabolical element is injected with a vaccine or that vaccines are linked to extraterrestrial activity such as UFO.

PARENTAL DECISION-MAKING PROBLEMS IN THE LIGHT OF SELECTED PSYCHOLOGICAL THEORIES

The features of the vaccination debate mentioned above have an obvious effect on the attitudes and decisions of parents regarding their children's immunisation⁽⁵⁾. This effect is usually negative since it deepens parents' decision-making problems due to information chaos and the associated mixed feelings. The biggest problems for parents seeking optimal solutions for their child primarily include a deficit of reliable knowledge on vaccinations, and strong discomfort and anxiety associated with making the decision and with bearing the possible consequences. What is important from the medical point of view is that these parents are often unable to prepare for the vaccination and deal with the aftermath of vaccination and with possible complications.

The situation of parents who are facing compulsory vaccination of their child may be explained based on the classic conflict theory by K. Lewin⁽⁶⁾. According to this theory, parents who want to make a decision whether to vaccinate their child or not face an approach–avoidance conflict. Such a conflict occurs in a situation when the subject matter of a decision to be made is associated with both positive and negative feelings. On the one hand, as research shows, the majority of parents consider immunisation to be their parental, social or civic duty^(3,4), which corresponds to the tendency for approach, which is the willingness to have their child vaccinated. On the other hand, there are strong tendencies towards avoidance, which is associated primarily with the fear of AEFI⁽⁷⁾. A large number of psychological studies indicate that avoidance reactions turn out to be stronger than approach tendencies⁽⁸⁾. It seems that this often applies to the parents of children of vaccination age as well. Some parents try to evade or postpone compulsory vaccination or delay it as much as possible: this is reflected in parents searching for certain legal ways to do it on social media^(5,9).

The decisional situation faced by parents is also explained by L. Festinger's cognitive dissonance theory⁽¹⁰⁾. Cognitive dissonance occurs when an individual encounters two conflicting cognitive elements. The situation causes a very strong discomfort, which is often likened to a homeostatic imbalance; this results in a tendency to seek strategies for the reduction of the associated tension⁽¹¹⁾. Such dissonance appears when a parent needs to make a decision on whether to vaccinate their child or not. A parent who seeks information receives contradictory data, for example, assurance of vaccine safety and information on the risks associated with non-vaccination on the one hand, and warnings of possible severe AEFI and even the risk of death as a consequence of vaccination on the other hand. Naturally, in this situation the parent experiences not only cognitive dissonance, but also a strong emotional and motivational conflict. As a result, they look for information that could help them to determine who is right in this dispute and what the actual risk of complications is. Research shows that the most commonly sought information on vaccination includes vaccine safety and toxicity, the experiences of other parents with given vaccines in their children and the possibilities to avoid or postpone vaccination^(2,3,12–14).

The considerations above demonstrate a clear need for ensuring access to credible and reliable sources of knowledge on vaccinations and preparation of healthcare professionals for effective communication with parents on the topic of vaccinations.

Both Polish and Western European research shows that despite the enormous bulk of information and opinion available on the Internet, it is the physician who is still considered to be the most credible, reliable and verified source of information⁽⁴⁾. This is obviously a very optimistic observation, although it indicates how significant the responsibility of a doctor towards their patients is.

DIFFICULTIES IN COMMUNICATION WITH THE DOCTOR AND THE POSSIBLE CONSEQUENCES

The analysis of statements made by parents on social media demonstrates that they have diverse experiences in communication with doctors regarding their children's immunisation. It seems that parents cannot always count on an empathetic attitude towards their needs in terms of communication regarding vaccination. According to parents, the most common errors made by doctors include dry, unempathetic, indifferent manner of addressing parental concerns, often evident in body language (e.g. lack of eye contact, performing other activities during the conversation while standing with their back to the patient); providing short, non-exhaustive answers; lack of time effectively resulting in non-engagement in communication; lack of individual approach reflected in, for example, using language that is not adapted to the patient's level of understanding, including the use of unclear terminology; a sense of not being fully listened to by the doctor; lack of opportunity for parents to express their own concerns regarding vaccination; devaluation, ridicule, mocking of what the parent says; verbal aggression in the form of threats and accusations (e.g. when a parent refuses to have their child immunised), and angry and impatient tone of voice in reaction to the parent's attitude; lack of exhaustive medical interview and the necessary diagnostic assessment before vaccination; lack of professional knowledge on vaccinations; unacquaintance with the arguments against vaccinations put forward by their opponents and the associated lack of ability to address them; finally, wishful thinking expressed by the physician, for example, in assuring parents of the absence of any risk of vaccine side effects. Obviously, the poor physician–parent communication should not be blamed exclusively on some doctors being ill-prepared. In many cases, the lack of effective communication with patients is due to flaws in the healthcare system (e.g. reduction of time for medical appointments due to a large number of patients) or sometimes hostile and demanding attitude of a parent aimed to generate extreme emotions in the doctor or force them to postpone compulsory vaccination or exempt the child from it, which may put the doctor in an ethically dubious position. Nevertheless, inappropriate communication regarding vaccinations can have negative consequences such as the deepening of decision-making problems of parents and their reluctance to contact the doctor. Due to a lack of satisfaction with contacts with healthcare professionals, parents may tend to seek information elsewhere or be reserved and distrustful in contact with them (the parent does not ask questions and does not express doubts). This can lead to an increase in the proportion of parents who do not have their children vaccinated or postpone vaccination; it can also contribute to a high emotional cost for parents who do have their children vaccinated, since they experience strong anxiety and mental discomfort.

Perhaps this problem is reflected in the current media reports showing that a large part of the Polish society does not intend to receive free-of-charge COVID-19 vaccination. This indicates a profound need for societal education and appropriate preparation of healthcare professionals to communicate with patients on the topic of immunisation.

RECOMMENDATIONS FOR EFFECTIVE COMMUNICATION ON VACCINATIONS AT THE DOCTOR'S OFFICE

Many researchers suggest the need to take action in order to prepare healthcare professionals for conversations on vaccination; their analyses show that the development of the skill of effective dialogue with a parent contributes to a higher rate of parents deciding to have their children vaccinated; parents are also more satisfied with their contact with the physician and their confidence in them improves. In addition, many authors propose that parental decisions concerning immunisation should be informed decisions based on an appropriate level of knowledge on vaccinations and consistent with the parent's values and opinions⁽⁹⁾.

In line with this, based on my original work and literature sources^(14–16), the following principles of effective physician–patient communication regarding immunisation are provided below:

1. Apply an individual approach: communication should be adapted to the parent's knowledge and educational level, number of children (whether a first-time parent or a parent with more experience), earlier experiences with vaccinations (how the child reacted to immunisation and whether there were any AEFI cases in the family), the child's health status and the parent's attitude towards vaccination. In order to obtain the information specified above, it is worth having a questionnaire ready for the parents of children of vaccination age at the doctor's office or the reception desk. By using them, it is also possible to determine the collective needs of parents in terms of demand for information on vaccination and implement solutions adapted to their level of understanding such as organising periodic information meetings and providing parents with written publications and educational brochures.
2. Select the right moment for a conversation: many authors propose that information regarding child vaccination should be disseminated already among pregnant women^(15,16). In this way, future parents can have plenty of time to ask for clarification of any doubts and obtain exhaustive information. Another good moment for doctor–parent communication is a visit preceding another vaccination appointment.
3. Adhere to the rules of good communication: listen to the questions and doubts of the parent, provide exhaustive answers, ask open questions to encourage the parent to express their needs and concerns and ask questions such as “What other concerns do you have?” or “Do you have

any other doubts?”. It is also important to assure parents of the possibility to receive information support should the need arise.

4. Create the right atmosphere: it is important that an atmosphere of calm and safety is maintained, which is conducive to building a relationship of trust. In this respect, it is worth adopting the right body language: assuming an open posture and keeping eye contact.
5. Avoid a commanding and authoritarian style of speaking. Even though the doctor–patient relationship is an obviously asymmetrical one in which the physician is the naturally dominating party who has more knowledge and wider competences than the patient, you should avoid addressing the parent with an air of superiority and omniscience, which can damage your interlocutor's self-esteem and instil a sense of inferiority in them. Such an attitude is more likely to lead to the parent withdrawing from the relationship, having limited confidence in the physician and, consequently, stopping to engage in any further communication altogether.
6. Ensure you have a good medical knowledge on the subject of vaccinations, which is an obvious requirement. However, it is also recommended that you know the arguments of vaccination opponents, since it is based on them that parents often evade compulsory vaccination of their children. Parents also ask physicians questions about these arguments. Therefore, it is important for a doctor to know how to deal with them.
7. Provide information on how to prepare for vaccination and how to proceed in the event of AEFI, which will contribute to a sense of safety and control in the parent, who will gain the necessary knowledge and the ability to use it.
8. Know the relevant literature/sources of objective knowledge on vaccinations: you can suggest literature publications or films that could deepen the parent's knowledge of vaccinations. Such a solution is useful for parents who absorb knowledge most readily or those who display strong anxiety associated with vaccinations.

The principles outlined above clearly show that healthcare professionals' preparation for discussion with parents concerning vaccination should cover competences not only in terms of professional knowledge, but also communication: thus, a physician should not only possess relevant knowledge, but also be able to pass it on in an effective way. Empathy is also of huge importance since it allows one to read the needs and expectations of patients correctly. Nevertheless, standardised questionnaires regarding the needs of patients available at clinics and other medical facilities could facilitate the process of communication. Naturally, systemic information support in the form of educational advertisements and campaigns is also very important.

Conflict of interest

The author does not report any financial or personal affiliations to persons or organisations that could adversely affect the content of or claim to have rights to this publication.

References

1. Szczepienia.info: Jaka jest liczba uchyleń dotyczących szczepień obowiązkowych? Narodowy Instytut Zdrowia Publicznego – Państwowy Zakład Higieny. Available from: <http://szczepienia.pzh.gov.pl/faq/jaka-jest-liczba-uchylen-szczepien-obowiazkowych/> [cited: 10 June 2019, 5 December 2020].
2. Gawlik K, Woś H, Waksmańska W et al.: Opinie rodziców na temat szczepień ochronnych u dzieci. *Med Og Nauk Zdr* 2014; 20: 360–364.
3. Stroba-Żelek A, Kubala P, Krawczyk A et al.: Analiza postaw rodziców i ich wiedzy na temat szczepień ochronnych dzieci. *Pediatr Med Rodz* 2019; 15: 171–179.
4. Kurup L, Shorey S, Wang W et al.: An integrative review on parents' perceptions of their children's vaccinations. *J Child Health Care* 2017; 21: 343–352.
5. Chung Y, Schamel J, Fisher A et al.: Influences on immunization decision-making among US parents of young children. *Matern Child Health J* 2017; 21: 2178–2187.
6. Lewin K: *A Dynamic Theory of Personality*. McGraw-Hill, New York 1935.
7. Faleńczyk K, Piekarska M, Pluta A et al.: Czynniki wpływające na postawy rodziców wobec szczepień ochronnych u dzieci. *Post N Med* 2016; 29: 380–385.
8. Bodanko A, Kowolik P: Konflikty w świetle teorii psychologicznych. *Nauczyciel i Szkoła* 2007; 3–4: 81–98.
9. Lehmann BA, de Melker HE, Timmermans DRM et al.: Informed decision making in the context of childhood immunization. *Patient Educ Couns* 2017; 100: 2339–2345.
10. Festinger L: *A Theory of Cognitive Dissonance*. Stanford University Press, Stanford 1957.
11. Jarosz M: *Psychologia lekarska*. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1983.
12. Leszczyńska K, Borkowska E, Irzyniec T et al.: Postawa rodziców wobec szczepień ochronnych. In: Markocka-Mączka K, Król H (eds.): *Dobrostan a rozwój i zdrowie dzieci i młodzieży*. Wydawnictwo Naukowe NeuroCentrum, Lublin 2016: 157–170.
13. Świątoniowska N, Rozensztrauch A: Szczepienia ochronne oczami matek. *J Educ Health Sport* 2017; 7: 11–19.
14. Leask J, Kinnersley P, Jackson C et al.: Communicating with parents about vaccination: a framework for health professionals. *BMC Pediatr* 2012; 12: 154.
15. Bašňáková J, Hatoková M: Which communicative strategies do Slovak pediatricians choose to facilitate parental decision-making about childhood vaccination? *Stud Psychol* 2017; 59: 139–155.
16. Corben P, Leask J: To close the childhood immunization gap, we need a richer understanding of parents' decision-making. *Hum Vaccin Immunother* 2016; 12: 3168–3176.