

Complexity of Communications with Vaccine Hesitant Patients for Nurses

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Abstract

Communication is a complex phenomenon. How people interpret information to make decisions relies on an infinite amount of data that is different for every individual based on experience, education, socioeconomics, and belief systems. The complexity is compounded with subjects such as vaccinations, when patients must make decisions that impact their lives and that of their family. Evidence based information regarding vaccinations is readily available from government institutions and international health agencies. An example is the World Health Organization (WHO). With the advancements in technology, the world also has access to misinformation, including opinions from anyone who wants to share, especially through social media platforms. All these complexities contribute to challenges nurses have as they try to educate the public on the importance of vaccinations and how they protect individuals and communities. Particularly, for the vaccine hesitant community, nurses must employ careful measures to ensure that the information conveyed is received in a manner that educates their patients to make informed decisions.

KEY WORDS: *Vaccination compliance, vaccine hesitancy, complex nursing communication, Nursing Education*

Introduction

Vaccine hesitancy is a multifaceted and complex public health issue; and a plethora of research has been conducted on patients' vaccine knowledge, attitudes, and beliefs that contribute to decreased public confidence in vaccines. This then decreases vaccine uptake, which ultimately has resulted in an increase of vaccine-preventable disease outbreaks. An example is measles. Research also illustrates that nurses are patients' primary source of vaccination information and that those who can communicate effectively with these patients are more likely to encourage adherence to medical advice and the adoption of preventative health behaviours, such as vaccination compliance (Courtney, 2019). As the world population approaches eight billion and access to information is readily available through media, technology, deliberate predatory and politically motivated behaviours, misinformation is becoming a serious public health concern. Now more than ever, nurses have a call of duty to mitigate vaccine hesitancy and provide evidence-based information within their community. Courtney (2019, p. iv) quoted Canada's Chief Medical Officer of Health, Dr. Theresa Tam:

Healthcare providers are on the front lines of this battle between truth and misinformation. We must support parents as they tease apart fact from fiction. How we talk to parents who have questions about vaccines can have a direct effect on improving their confidence and supporting them in getting their children vaccinated.

This article will explore the challenges nurses have in effectively communicating with vaccine hesitant patients in a manner that is impactful.

Vaccine Hesitancy

Vaccine hesitancy is a reluctance to receive recommended vaccination because of concerns and doubts about vaccines that may or may not lead to delayed vaccination or refusal of one, many or all vaccines. Choosing to delay or refuse vaccination puts individuals and communities at increased risk of serious illness and possible death

from vaccine-preventable diseases; therefore, it is vital that recommended vaccines are administered on time and at the appropriate age. More importantly, it is vital that nurses have high quality communication skills in order to communicate effectively with vaccine-hesitant patients. Research indicates that a nurse's ability to communicate effectively with their patients has a profound effect on patients' adherence to medical advice and the adoption of preventative health behaviours (Courtney, 2019).

Vaccination compliance is a nuanced issue. In a review of 12 studies that was conducted on the beliefs and perceptions of practice nurses about the measles, mumps and rubella (MMR) vaccine, four themes were identified as influential factors on vaccination compliance: parental immunisation influencing factors, practice nurse characteristics, information and communication, and personal views and concerns (Aitken, Hill, & Salmon, 2019).

The medical community is acknowledging this resistance and possible links to cultural and religious beliefs to the anti-vaccination movement. Nurses have a responsibility to understand the patient's cultural and religious influences and answer all questions posed about vaccinations and prevention of disease and the risks associated with not getting vaccinations to themselves and the greater community. If mandates are issued within a community, it is a nurse's responsibility to report information collected from the patient regarding vaccination history (Smith, 2017).

Front line nurses must make the time to understand a patient's health history, cultural belief systems about healthcare, and specific concerns surrounding immunisations to appropriately inform their patients. As a result, patients are able to make educated decisions for their health and their families. This includes considering a patient's understanding and comprehension of misinformation, such as the discredited theory that the MMR vaccine increases the incidence of Autism.

Scientific Facts Support Sound Vaccination Decision Making

The year 2019 marked the return of measles after almost two decades of unprecedented successes in global vaccination programmes. Measles transmission due to sharp declines in MMR vaccination coverage is now widespread among nations that previously saw impressive public health gains including Philippines, Democratic Republic of Congo, Madagascar, Samoa, many in Europe, the United States, and Venezuela in the Americas. A key determinant for this is an increasing globalised antivaccine movement which is partly responsible for over 100,000 measles cases in Europe in 2019, and the re-emergence of measles to the United States almost twenty years after it was eliminated (Colwell, Hotez, & Nuzhath, 2020).

Psychologists have documented that when people are presented with ambiguous or mixed evidence, they tend to select and interpret information in a way that confirms their existing positions, a tendency termed confirmatory bias. For example, the notorious study by Wakefield in 1998 published in the *Lancet*, linked the measles virus to the inflammatory bowel disease found in autistic children, initiated the infamous MMR-autism controversy, and fueled an ongoing-anti-vaccine movement that continues today. This resulted in a delay of the MMR immunisation since 1998. This trend continues to be perpetuated even after scientific consensus has been reached that the MMR vaccine does not cause autism.

Exposures to negative information about the vaccine strengthened existing biases more than exposures to positive information attenuated them. This finding provides evidence consistent with the implications of confirmatory bias documented by psychologists that in the presence of common bias in human reasoning, misinformation, once planted is hard to eradicate. Positive information, however, had strong impacts on vaccination decisions, suggesting that dissemination of vaccine safety information may mitigate misinformation. (Chou, Lai, & Qian, 2019, p.15)

The challenge for nurses is to truly understand the underlying belief systems of the patient. Nurses develop this skill over a period of time. Effective communication begins first with understanding. Only then can nurses provide information that will be comprehended and interpreted correctly, no matter how fact or evidence based it is. Facts

and scientific evidence do not always succeed emotion or belief systems. Evidence against an MMR-autism link has been accepted by leading US organisations such as the American Medical Association, the American Academy of Pediatrics, the Institute for Vaccine Safety at Johns Hopkins University, and the Centers for Disease Control and Prevention (CDCP). A patient still needs to be heard and understood on why their stance may be contrary in order to ensure they make the best decision for themselves and their families (Edwards, 2001).

Balancing Education and Sensitivity

In a study conducted by Deem, Kozak, and Navin (2019), 39 public nurse educators in Michigan were tasked with educating vaccine hesitant parents who requested non-medical exemptions from school or daycare immunisation mandates. The purpose was to gain perspectives of the educators on their observations following education sessions with these parents.

Analysis of the transcripts from these interviews revealed that nurse educators have complex and nuanced observations and evaluations of parents' judgements and feelings about vaccines and vaccine education. They also have sympathetic attitudes about alternative vaccine schedules. Nurses have both critical and supportive evaluations of institution policies and background political context of immunisation education. Lastly, nurse educators were found to have consistent commitments to respect parents, affirm their values, and protect their rights. (Deem, Kozak, & Navin, 2019, p. 62)

These results show that public health nurses are sensitive to the burdens mandatory immunisation education places on families, the motivations for parents' requests for nonmedical exemptions, and the values implicated by personal immunisation decisions and government immunisation policies.

This study clearly outlines the complex role nurses have when educating patients on vaccinations and the implications it has on their lives and the greater community. They simultaneously must listen, interpret, and digest information provided to them and also communicate meaningful information based on what was shared with them to persons that may have a completely different understanding and belief system from themselves. This is to educate parents that the reservations they have regarding vaccinations are outweighed by the benefits that have been scientifically and factually proven. Nurses have an obligation to provide this information without bias or judgement to indicate why the information was not understood in its entirety without the education session. Thus, implicit biases involve associations outside conscious awareness that lead to a negative evaluation of a person on the basis of irrelevant characteristics such as race or gender.

In a review of 42 articles to examine evidence that healthcare professionals display implicit biases towards patients, 35 articles were found to have evidence of implicit bias towards healthcare professionals. All the studies that investigated correlations found a significant positive relationship between levels of implicit bias and lower quality of care (FitzGerald, & Hurst, 2017).

The evidence indicates that healthcare professionals exhibit the same levels of implicit bias as the wider population (FitzGerald, & Hurst, 2017). This makes the job of a nurse to communicate scientific, evidence-based information in a meaningful manner to patients who have a different view of the world from themselves extremely difficult. It is something that must be consciously considered in order for nurses to provide the best patient care possible, which means arming them with information in order to make the best decisions in any situation.

Bermuda: A Small Community Example

Fortunately, Bermuda has not had any reported cases of measles since the re-emergence of the disease.

MMR vaccine is the most refused or delayed childhood vaccine in Bermuda, with a 30% refusal rate from the 400 people who were surveyed. There is indication of an anti-vaccination

movement in Bermuda which led the Ministry of Health to develop a strategic framework for increasing vaccine coverage in Bermuda. This plan was guided by the WHO (Government of Bermuda Department of Health. (2019, pp. 9-10)

The World Health Organisation recommends 95% coverage in all vaccinations to protect both those vaccinated and unvaccinated. According to the Pan American Health organisations (PAHO) 2017 Expanded Programme on Immunisation (EPI) Country Report for Bermuda, vaccine coverage in Bermuda decreased from 94% in 2016 to 79% in 2017. Therefore, a survey was commissioned by the Department of Health in April 2018 which subsequently identified that 1 in 5 Bermuda residents with children have either refused or delayed vaccination. The survey further supports PAHO's 2017 EPI report that Bermuda's vaccine coverage is suboptimal dropping by almost 20% in one year (Government of Bermuda Department of Health, 2019, p.9).

From this study of Bermuda residents who were interviewed, the top two reasons people perceived childhood vaccinations as unsafe is that they do not believe or trust vaccines are safe, and that children will have adverse reactions (Government of Bermuda Department of Health, 2019, p.11).

In one interview conducted by a community health nurse, a 22-year old new mom was asked the following question during a primary well-baby check. What, if any, were her specific concerns regarding vaccinations? The woman was undecided on permitting CDC recommended vaccinations to her infant child. She indicated apprehension after reading information that lead her to believe that vaccines are not safe. When pressed further on specific concerns regarding safety measures, she concluded it was simply how she felt. When asked what her sources of information were, she stated it was the Internet. She was not certain of the specific resources. Upon further discussion about leveraging evidence based resources available from organisations like CDC and WHO and American Nurses Association (ANA), the young mother verbally indicated that more research was required on her part to be better informed to support her feelings. She intended to look at suggested materials to ensure she was making sound decisions for her new family (Community Health Nurse. Interview, October 9, 2019).

In another interview with a 20-year-old mom of an infant baby, the apprehension was similar and CDC recommended vaccinations were not desirable. The mother and her partner felt that vaccinations caused the disease that they were intending to prevent. When pressed for sources of information, no specifics were articulated, stating that it was just how they felt. When the health visitor discussed two recent cases of pertussis in Bermuda with the parents, they expressed a definite desire to get the diphtheria, tetanus, and pertussis (DTaP) vaccination for their baby but would hold off on the MMR vaccine (Community Health Nurse. Interview, October 9, 2019).

In both interviews discussed, the desired outcome of the health visitor was achieved. In the first scenario, the mother articulated a necessity for more fact-based information to support her feelings of apprehension towards vaccinations. This was achieved simply by providing relevant sources of information for the mother to research and digest on her own time. In the second scenario, the family decided to proceed with the DTaP vaccination for their infant child who will now likely be protected throughout childhood from pertussis. This was achieved by simply communicating details about the incidence and distribution of pertussis in Bermuda.

Vaccination Advocates

The ANA has a position on immunisations. In order to protect the health of the public, all individuals should be immunised against vaccine-preventable diseases according to the best and most current evidence outlined by the CDC and the Advisory Committee on Immunisation Practices (ANA, 2015).

Personal belief systems and values should be respected for all individuals. Everyone has a right to an opinion and to interpret information in a manner that fits their value and belief systems. Science should also be respected when it is evidence based, tested, authentic and thorough. The WHO (2019) raised over 8 million dollars for the 2018-19 research and development programme for communicable diseases.

The principles of the WHO state that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition and that informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people. These principles have been in place since 1948 into the constitution of the WHO that is dedicated to ensuring governments are responsible for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures. (WHO, 2020, paras. 2,8-9)

Nurses' obligation to their community is to be knowledgeable and dedicated to sharing science and research, without bias or prejudice, that promotes health and safety based on evidence.

Nursing Matters

Nursing is a privilege. With it comes accountability. A nurse's opinion is valued in all aspects of life: clinically, professionally and personally. It is critical that nurses reflect the principles of the respective profession while providing education to vaccine hesitant patients in a manner that provides them with further insight and perspective, irrespective of changes to mindset. A nurse's ability and capacity to educate is tremendously complex and impactful. Most importantly, the focus revolves around saving lives. This happens one conversation at a time and makes a difference in communities as evidenced by the interviews presented in this article.

Conclusion

As scientists around the world work towards developing and testing vaccinations against COVID19, the global pandemic that has consumed the world in 2020 and taken over 180,000 lives (as of September 2020), the topic of vaccination hesitancy is more substantial than ever.

The success of any vaccine depends on the percentage of the population that gets vaccinated. In a study conducted by Ashworth, Finnoff, Newbold and Thunstrom, (2020), with a sample of 3,133 adults in the United States, 20% would decline a vaccination. Distrust of vaccine safety and vaccine novelty are among the most important deterrents to vaccination.

Inconsistent risk messages from public health experts and elected officials reduce vaccine uptake. Survey results are used in an epidemiological model to explore conditions under which a vaccine could achieve herd immunity. Results show a middle-of-the-road scenario with central estimates of model parameters. A vaccine will benefit public health by saving many lives but nevertheless may fail to achieve herd immunity. (Ashworth et al., 2020, p.1)

During a global pandemic nurses have a plethora of responsibilities. As health care professionals, colleagues, friends, and valuable members of communities, nurses have the ability to save lives. They rely heavily on their ability to understand science based information at a rapid rate as well as digest facts in a manner that can be effectively communicated to a diverse group of people. Nurses have a complex set of tasks under ordinary conditions; however, during a global pandemic tasks become extraordinary. Providing people with science-based information regarding vaccinations allows families to make fact-based decisions and more importantly it saves lives.

References

Aitken, L, Hill, M., & Salmon, D. (2019). What are the beliefs and perceptions of practice nurses' influence about the uptake of the measles, mumps, and rubella vaccine?: An integrative literature review. *The Journal of Advanced Nursing*, 75 (2), 266-276.

American Nurses Association (2015). *American Nurses Association Position Statement of Immunisations*
Retrieved from: https://www.nursingworld.org/~49177c/globalassets/docs/ana/executivesummarypositionstatement_immunisations.pdf

- Ashworth, M., Finnoff, D., & Newbold, S. Thunstrom, L. (2020). Hesitancy towards a COVID-19 vaccine and prospects for herd immunity. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3593098>
- Chou, S., Lai, E., & Qian, M. (2020). Confirmatory Bias in Health Decisions: Evidence from the MMR-Autism Controversy. doi: 10.3386/w26772
- Colwell, B., Hotez, P. J., & Nuzhath, T. (2020). Combating vaccine hesitancy and other 21st century social determinants in the global fight against measles. *Current Opinion in Virology*, 41, 1–7. doi: 10.1016/j.coviro.2020.01.001
- Community Health Nurse Interview (2019, October 9).
- Courtney, E. (2019). Communicating effectively with vaccine hesitant patients. *The Organisational Improvement Plan at Western University*, 68. Retrieved from <https://ir.lib.uwo.ca/oip/68>
- Deem, M. J., Kozak, A. T., & Navin, M. C. (2020). Perspectives of public health nurses on the ethics of mandated vaccine education. *Nursing Outlook*, 68(1), 62–72. doi: 10.1016/j.outlook.2019.06.014
- Edwards, C. (2001, March). Is the MMR vaccine safe? *U.S. National Library of Medicine, National Institutes of Health*. doi: 10.1136/ewjm.174.3.197
- FitzGerald, C., & Hurst, S. (2017, March). Implicit bias in healthcare professionals: a Systematic review. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5333436/>
- Government of Bermuda Department of Health (2019). *Strategic Framework for Increasing Vaccine Coverage in Bermuda*.
- Smith, T. C. (2017). Vaccine rejection and hesitancy: A review and call to action. *U.S. National Library of Medicine, National Institutes of Health*. doi: 10.1093/ofid/ofx146
- Wakefield, A., Murch, S., Anthony, A., Linnell, J., Casson, D., & Malik, M. et al (1998).
- RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. *The Lancet*, 351(9103), 637-641. [https://doi.org/10.1016/s0140-6736\(97\)11096-0](https://doi.org/10.1016/s0140-6736(97)11096-0)
- World Health Organisation (2020). *Constitution*. Retrieved from <https://www.who.int/about/who-we-are/constitution>
- World Health Organisation (2019). *Programme budget 2018-2019*, p. 5. Retrieved from https://www.who.int/about/finances-accountability/budget/PB2018-2019_en_web.pdf?ua=1