

**Literature Review of Vaccination Hurdles Experienced by Nursing Staff**

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N434: Evidence-Based Practice

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July 1, 2023

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Debates centered on the pros and cons of vaccinations have increased immensely since the rise of the COVID-19 pandemic and continue to erupt throughout the United States when discussing the COVID-19 vaccination and every vaccination available. Before the pandemic, parents argued about childhood vaccinations' safety and weighed the suggested vaccinations' pros and cons for years. The fear of vaccination dates to earlier years; during the creation of vaccinations, including the smallpox vaccine, humans voiced concern about injecting the smallpox virus into their flesh to become immune from the deadly disease (Benoit & Mouldin, 2021). In 1998 articles began to surface suggesting that MMR vaccinations were linked to autism diagnoses and promoted fear among parents and children, resulting in a decline in childhood vaccination. The fear and uncertainty of vaccinations have added multiple hurdles to the nursing profession, including providing extensive client education, caring for infected clients that are not vaccinated, managing client's outbursts of anger and arguments, and providing answers to clients that have received information from social media or other outlets about vaccinations whether what they have heard is factual or false.

Questionnaires that include multiple parents, children, providers, and nursing staff have answered questions to obtain a large variety of data to determine the knowledge base and understanding of vaccinations across the board. The data collected also aids in understanding what is needed to satisfy each group's needs for information, understanding, and any possibility of a change in opinion concerning vaccinations. Regardless of where the nursing staff stands on vaccinations, the client should expect the same respect and client care from the nursing staff. When a client refuses vaccinations, the care plan may need to be changed entirely to ensure the safety of the client and the staff. The purpose of this literature review is to dive into the hurdles

that nursing staff faces concerning the pros and cons of vaccination and the opinions of the public that influence the controversy. Providing education while not debating the client's personal vaccination preference is not easy but understanding that clients have the right to refuse is a large portion of the foundation of a nurse's education.

### **The Anti-Vax Movement: A Quantitative Report on Vaccine Beliefs and Knowledge Across Social Media**

In our society, social media is a standard outlet for clients to obtain medical information, voice their opinions, or create new opinions based on social media influencers posted information. Social media can influence clients when choosing whether to vaccinate themselves or their children for Covid 19, influenza, or milestone-related vaccinations. Determining the level of understanding of those questioned depends on the person and their choice to engage in vaccination or to choose anti-vaccination based on their knowledge or belief. Pinpointing what social media platform influenced each person's decision is determined through a questionnaire offered to people using Facebook, Instagram, and Twitter to assist in determining which social media platform was most influential to those engaging in anti-vax or pro-vax conversations. The report also highlighted the factors that influenced those who consider themselves anti-vax, including not trusting doctors, the government, or pharmacological companies, and their knowledge base outside of social media that influences the understanding of vaccines and how they work on a scientific level (Benoit & Mouldin, 2021).

#### **Key Points**

Utilizing a questionnaire provided across Facebook, Twitter, and Instagram platforms, a total of 2517 respondents, which, when narrowed down to 2417 participants, were chosen that engage in conversations across social media focused on vaccination is the focus of this article. Participant demographics included country of origin, race, gender, preferred social media

platform, and socioeconomic status. Anyone under 18, partially completed surveys, or did not consent became excluded from the 2417 participants utilized for this study. The Survey provided in English consisted of questions about social media and any relationship with information focused on vaccinations, basic vaccination knowledge, and myths centered on vaccines.

Each section scored using a twelve-point scale, concluding that scoring between nine and twelve suggested adequate vaccine knowledge, scoring five to eight points suggested some vaccine knowledge, and scoring zero to four suggested inadequate vaccine knowledge. A separate portion focused on vaccination beliefs and myths scored on a twelve-point scale, and participants who scored higher in this section did not admit to believing in common vaccination myths. Participants who scored at the lower end of the scale did admit to beliefs in common vaccination myths. The Welch test analyzed the data collected and provided controlled data free of errors (Benoit & Mouldin, 2021).

Participants included 446 aged 18-24, 715 aged 25-34, 591 aged 35-44, 394 aged 45-54, 189 aged 55-64, and 82 participants over 65. Participants included 1937 females accounting for 80.1%, and 454 males accounting for 18.8%. Participant's country of origin included a total of 2012 North American participants 1700 from the USA and 312 of those from other countries within North America, 180 from Australia/Oceanic, 176 labeled European, 22 from Asia, 11 from Africa, and 1 participant from Antarctica. Participants' Education levels included 2 with no formal schooling, ten who completed grades 1-8, 509 who completed high school, 540 who obtained an associate degree, 833 who obtained a bachelor's degree, 336 who obtained a master's degree, and 187 obtain a professional degree. Socioeconomic status includes 238 participants considering themselves lower class, 1987 middle class, and 192 upper class. Furthermore, the social media platforms participants most used consisted of 1688 using Facebook, 378 using

Twitter, 311 using Instagram, and 40 participants using other forms of social media consisting as Snapchat, Tumblr, Reddit, Pinterest, or others (Benoit & Mouldin, 2021).

Participants concluded that 92.7%, a total of 2240 participants, have seen social media posts about vaccines, while the remaining 7.3% of 177 participants did not witness a post about vaccines. These study participants report the influence of vaccination posts across social media to influence 130 participants to think vaccines are worse than previously thought, 328 participants to think vaccines are better than previously thought, 1846 participants state there was no influence by posts focused on vaccination, and 113 participants deny seeing posts concerning vaccination at all (Benoit & Mouldin, 2021).

Participants reported that 2160 of participants trust doctors concerning vaccination decisions/education, 100 participants put their trust in the internet concerning vaccination decision/education, 48 participants put their trust in the knowledge of family members concerning vaccination decision/education, 48 participants put their trust in the peers or friends concerning vaccination decision/education, 5 participants put their trust in social media concerning vaccination decision/education, and 49 participants put their trust in the government concerning vaccination decision/education (Benoit & Mouldin, 2021).

The data included in the study presented as significant in presenting across a multitude of demographics and providing a specific number of participants that answered each area of questioning across the board. P-Values included for each category, including knowledge, beliefs, and age, mostly ranging with a p-value  $> 5$ , suggesting the hypothesis is statistically valid. The study concludes that a more significant number of participants not influenced by social media posts that promote negativity concerning vaccinations is due to being knowledgeable and educated. "Overall, this study found that respondents were very knowledgeable, with a mean

knowledge score of 10.4. Very few people had negatively skewed knowledge 0–4 (138 people, 5.7% of the total study population)" (Benoit & Mouldin, Pg. 7, 2021).

### **Assumptions**

The author assumes that social media influences the movements focused on anti-vaccination based on the beliefs and knowledge of social media users and the extent to which social media persuades its users through thought processes about vaccination. The author explains that social media allows people with or without a knowledgeable background of vaccinations to provide factual and nonfactual information to the public through their multiple social media platforms. The lack of knowledge of vaccination facts and beliefs that need to be factually supported is a portion of the author's assumption that social media can influence its users about vaccination. The author was correct in the assumption that a more significant amount of the study participants were knowledgeable of vaccinations, not influenced by negative vaccination information across social media platforms, and had specific belief systems not influenced by social media. The number of knowledgeable participants outweighed the number of participants that could have been more educated and knowledgeable, so that portion of the study was not equally determined (Benoit & Mouldin, 2021).

### **Deficit/Conclusion**

The author's line of reasoning is personally acceptable when utilizing all forms of social media; the fact that each platform used by participants to promote a specific way of thinking and used to gain acceptance by others as well, even if the information promoted is not factual is abundantly clear on all platforms. Specifically, promoting a following for hot topics like vaccination allows users to provide information to other users, including those who are only

sometimes knowledgeable of facts surrounding the subject, who may feed into and promote the nonfactual information provided (Benoit & Mouldin, 2021).

The consequences of this article's concern of validation consist of many social media users not being knowledgeable of vaccination information, obtaining the ability to persuade other users to agree with and promote the anti-vax movement across social media, and gaining a following. Considering the specific research information provided from the Survey, most educated participants are knowledgeable about vaccinations. They cannot be persuaded or influenced by social media posts that shed a negative light on vaccines.

Accepting that social media platforms can persuade clients allows nursing staff to ask pertinent questions about social media's influence on their clients. It opens the door to correcting any misunderstandings or answering any questions with facts concerning vaccinations to provide clients with the proper education best to better their health. Educating our clients about vaccination facts could lead to them promoting educated vaccination information to others and creating a positive following for pro-vaccination. If nursing staff fail to accept this line of reasoning, it could promote the opposite outcome.

### **The Role of Health Education in Vaccination Nursing**

Public health in the healthcare industry focuses on improving sanitation, unbalanced economic development, disease knowledge, prevention, and treatments. Providing education focused on preventing and treating diseases is an enormous portion of a nurse's job to provide clients with awareness and a vaccine ability to improve public health by utilizing vaccination treatments for diseases one client at a time or in a large group (Yao et al., 2022).

Within the article, data proves that health education is necessary to provide parents with scientific-based education, assisting in the cognition of parents and reducing children's anxiety

concerning vaccination while informing clients about the improvement of the success rate of vaccinations. Studies conducted for this article focus on the role education plays in the prevention and treatments assisting in vaccination awareness, administering questionnaires to 500 participants, including students, parents, and staff, while providing education and training to the participants. A significant difference in understanding vaccinations is noted after providing a questionnaire before and after the education and training portions to the parent portion of the group. This finding confirms that when clients receive educational support, they can better understand the importance of vaccination (Yao et al., 2022).

### **Key Points**

Educating clients about how vaccinations work directly with the human body is the first step in health care's disease prevention. It is a holistic approach to assisting clients to ensure a healthy mind, body, and soul. Client education can prevent, or correct misunderstandings related to vaccinations, antibiotics, or the misuse of antibiotics. Ensuring the client's understanding includes the client's knowledge of the vaccination process and that it assists in preventing contracting a disease and contributes to children's ability to thrive (Yao et al., 2022).

Client education can assist in creating preventative healthcare habits and the awareness of potential risk factors and symptoms that may assist the client with seeking assistance before treatment is needed. Implementing staff education ensures the entire team's understanding of the importance of vaccination and the importance of the client's vaccination education (Yao et al., 2022).

The study included 80 staff members questioned about their knowledge of vaccinations, 100 students that were vaccinated, 90 students not vaccinated, 120 mothers of students, 80 fathers of students, and 30 grandparents. Questionnaires were administered before any

educational methods and after as well to gauge the effectiveness of the educational methods provided. Educational videos, printouts, lectures, and children's toys with educational information were made available to all 500 participants after administering the first questionnaire. After administering the educational portion and the second questionnaire, each group's results were analyzed and tallied. According to staff, the main difficulties experienced by staff concerning vaccination efforts included insufficient assistance, adverse reports, non-cooperation of the masses, a weak team, and the lack of salary and labor, with adverse reports listed as the most common difficulty experienced. According to the parent questionnaire, 158 of the 200 parents successfully mastered vaccination-related knowledge after receiving education. 68 of the 90 students not vaccinated chose to be vaccinated, while 94 of the 100 students who were vaccinated previously chose to obtain unscheduled vaccinations as well (Yao et al., 2022).

This article also conducted research that included staff, parents, and students regarding reducing adverse vaccine reactions, increasing client and staff satisfaction, improving the effect of vaccinations, and reducing the occurrence of allergic reactions. The study's data found that 142 of the 500 participants think that health education could reduce allergic reactions that occur due to vaccinations. 96 of the 500 participants think that health education can improve the effectiveness of vaccinations. 153 of the 500 participants think that health education can increase satisfaction concerning vaccinations. Furthermore, 122 of the 500 participants think that health education about vaccinations would reduce the risk of adverse effects of vaccines. This study did not include a p-value within the data collection or the results (Yao et al., 2022).

### **Assumptions**

The author assumes that when providing client education concerning vaccination, the positive impact is significant for the client and the general public's health. The author focused on

the knowledge of staff, students, and parents before and after both questionnaires were administered to all 500 participants to obtain a base of knowledge to compare to knowledge gained after using educational tools. This information allowed to author to utilize the data collected to prove his theory that when staff and clients utilize educational resources on the importance of vaccination, they can make a more educated decision and are more likely to become vaccinated. The author was correct in the assumption that more participants would utilize vaccination methods once educated rather than not choose vaccination methods. The number of participants positively influenced concerning vaccination education, methods, and preventative outcomes by the study was the main objective of the author (Yao et al., 2022).

### **Deficit/Conclusion**

The author's line of reasoning is acceptable because of the author's ability to provide basic knowledge that is easily understandable within the article and the study provided. The author provided the three most affected and vocal groups regarding the subject of vaccination with specific pre- and post-questionnaires along with a multitude of educational data in multiple forms that presented to each group and their educational level within the study. Each portion of the study contributes to each group's knowledge before and after providing education and the effects on the group members' opinions about vaccination following the educational process (Yao et al., 2022).

The consequences provided and article's concern of validation consist of participants needing to accept educational vaccination information, needing more ability to understand the educational information provided, and refusing to engage in the pre- and post-questionnaire to obtain factual data for the study to be complete. When considering the data obtained from the study, most participants chose to participate in both questionnaires provided and the educational

portion, with mostly positive outcomes. The author declared that there is no conflict of interest within the study (Yao et al., 2022).

Nursing staff chose to participate in the study, allowing them to address their concerns surrounding client vaccinations and the main difficulties experienced by staff concerning vaccination efforts. The concerns most common included insufficient assistance, adverse reports, non-cooperation of the masses, a weak team, and the lack of salary and labor, with adverse reports listed as the most common difficulty experienced. Using this information allows strides to correct or, at the very least, better the areas of concern for nursing staff regarding vaccinations. Providing feedback that helps voice concerns and make corrections assists in a better work environment. If nursing staff fail to accept this line of reasoning, it could promote the opposite outcome.

### **Nursing and its Essential Role in the Vaccination Against COVID-19: New Challenge in a Pandemic Scenario**

The COVID-19 pandemic unlocked a new fear of vaccination for millions worldwide and added stress to medical professionals. Multiple interventions implemented at the pandemic's beginning created controversy and pushback, including mask mandates, quarantine, extensive testing, travel restrictions, and social distancing mandates. These interventions may have caused pushback, but it was minor compared to the emotions experienced globally from the thought of a vaccination created so quickly to assist in gaining control of the pandemic before it worsened. Unfortunately, the medical staff was personally affected due to vaccination mandates surrounding their jobs and the number of medical staff leaving the field due to the refusal of vaccination. Maintaining a career in the medical field during the peak of the pandemic involved

large amounts of stress from clients not only refusing to receive the vaccine but also from the constant controversy surrounding all aspects of the vaccine and the pandemic (Barría P, 2021).

Nurses providing education and raising public awareness to clients concerning vaccination is only a tiny portion of their ongoing effort to fight on the front lines to provide preventative measures to protect their clients and to provide mass vaccination programs to fight against COVID-19. When preventative measures are not respected, the nursing staff must provide direct contact with infected clients providing any healing and comfort measures possible while working endless hours wearing personal protective equipment (PPE) and accepting the risk of possible infection themselves and is why providing vaccination education to promote trust and acceptance is so important (Barría P, 2021).

### **Key Points**

Nursing staff addressing doubts, fears, misinformation, conspiracy theories, or any other negative information surrounding the COVID-19 vaccination is a large portion of providing the public with the educational tools they will need to make an educated decision in their healthcare choices. Ensuring that the public has access to mass vaccination sites that are free of cost is a large portion of providing the public with a service that helps the entire population. The ability to treat and control outbreaks of COVID-19 depends on the ability to obtain 80% vaccination compliance within the first year of vaccination, and protection from variants is not guaranteed. No p-value was provided in this study (Barría P, 2021).

Based on efficiency reports and statistics, the study shows that in areas of high transmission, vaccination for COVID-19 is the most effective intervention to assist in controlling COVID-19. The study shows that those not vaccinated in these areas are at the most significant risk of spreading COVID-19, which can lead to long-term health complications or death. These

areas are targeted for mass vaccination clinics to assist the population in controlling outbreaks and require more medical staff and supplies (Barría P, 2021).

Herd immunity is a hot topic when promoting the COVID-19 vaccination, which provides antibodies directly used to fight against future infections of COVID-19. When a more significant portion of the population chooses vaccination against the disease, the spread of the disease is less likely to occur. In this case, the study shows this occurs when more than 80 percent of the population is vaccinated, and herd immunity occurs. In return, the choice of vaccination protects the entire population or "herd" against contracting the disease and spreading it, including those who cannot be vaccinated. Herd immunity is not one hundred percent effective because there is always a threshold proportion that can contract and spread the disease. However, the spread of the disease could decline if this occurs (Barría P, 2021).

By collecting information from other sources and reviewing the data collected, the author can explain the importance of utilizing the COVID-19 vaccination to control the future spread of the disease. The author explains the nurses' role in educating the client while promoting the acceptance of the vaccination and the benefit of herd immunity. A healthier work environment is created by eliminating hurdles that the nursing staff must cross often, including addressing the client's doubts, fears, theories, negative information, or misinformation. Furthermore, when education is effective and vaccination occurs, nursing staff experiences a decrease in infected clients experiencing more complicated risks and symptoms that can lead to long-term health complications, ventilator use, or possible death (Barría P, 2021).

### **Assumptions**

The author assumes that nursing staff will be able to persuade clients to choose vaccination in the interest of public health when faced with educational tools explaining the

advantages of vaccination. The assumption is that when education is effective and more than 80 percent of the population is fully vaccinated, the population will become mostly immune through herd immunity. Once the population has reached this level of immunity, the nursing staff should see fewer positive COVID-19 cases, which should also cause a domino effect of less severe cases ending in long-term health-related issues or death. Once positive COVID-19 cases have decreased, a decrease in nurse burnout from experiencing exhaustion physically and mentally (Barría P, 2021).

### **Deficit/Conclusion**

The author's reasoning is acceptable because the subject and data collected are factual situations in recent years and experiences reported globally. The ability to understand that vaccinations provide clients with immunity to COVID-19 and reduce the chance of contracting or transmitting the disease to others is a basic understanding of how vaccines work. Anyone working in healthcare during the pandemic understands that because they experienced stress and burnout from clients expressing their doubts, fears, anger, theories, negative information, and misinformation obtained from unreliable sources (Barría P, 2021).

The consequences provided within the article and the concerns of validation consist of the nursing staff's ability to provide the population with valuable information surrounding the vaccination for COVID-19 and the population understanding and accepting the information provided to them. The ability to offer a mass vaccination option to obtain a more significant portion of vaccinated individuals requires nursing staff to provide the proper education, supplies, location, and necessary PPE for staff and participants, which may be challenging to provide all at once considering staff and supply shortages at that time.

Experiencing the pandemic is not a choice for healthcare staff or the public, and the ability to gain information quickly for the COVID-19 vaccination could only have happened with all the current medical advances. Providing client education, free mass vaccination sites, PPE, credible information, client care, and the ability to meet the needs of clients diagnosed currently or experiencing residual effects is nothing short of amazing. Providing care for clients experiencing or affected by long-term COVID-19 or searching for an understanding of the need for the COVID-19 vaccination should be at the top of the list because if nursing staff fail to accept this line of reasoning, it could promote the opposite outcome.

The author declared that there is no conflict of interest.

## **Conclusion**

The ability to provide proper education to clients when faced with the adverse effects of social media and nonfactual information concerning vaccinations could limit positive client outcomes. Social media can influence millions of people within a matter of seconds and can do as much good as it does harm for millions of topics, including shining a positive light on vaccines with information to back it up; this could improve the client's understanding and acceptance of vaccines across the board. Social media can harm or help the nursing practice in multiple ways; when vaccines are the topic, nurses can bypass a portion of repeated education and aggressive interactions if factual vaccine education is provided across Facebook, Twitter, and Instagram alone. The ability to improve the quality of vaccination education concerning social media lies in the hands of each individual and the platform they receive their information directly. Therefore, the change must begin within healthcare and the information provided to social media outlets by creating an improvement plan that includes direct contact with social media platforms and promoting healthcare education based on facts. If the thought process about

vaccines were to change positively, healthcare would improve drastically (Benoit & Mouldin, 2021).

The data proves that educating clients on healthcare-related topics, specifically vaccines, is necessary to change patient and nursing-related outcomes. The data provides a clearer understanding of the vaccination process after receiving education rather than before education. Providing information based on straight facts allows the client or the client's parents to understand the importance of vaccination. It is more likely to improve the success rate of administered vaccinations. Providing education to clients and their families allows the nursing practice to improve by avoiding unnecessary misunderstandings and promoting a positive healthcare environment while improving quality efforts. Healthcare can improve simply by the number of clients choosing vaccination and assisting in disease prevention (Yao et al., 2022).

Undoubtedly, the COVID-19 pandemic changed the outlook of disease and vaccination worldwide positively and negatively. Client outcomes can be positively changed by providing education and promoting the ability to obtain vaccinations to control the spread of COVID-19. Educating and changing the client's understanding of vaccinations and the disease process can improve the nursing process by utilizing the working environment to change from negative and draining to positive and uplifting rather than experiencing continuous client interactions addressing doubts, fears, and negativity surrounding COVID-19 and vaccinations. Educational tools provided to clients with the ability to make an educated decision concerning vaccinations can assist in providing positive improvements for the client and staff. When vaccination education is made available to clients and their families, fears, and uncertainties can be confronted with truthful information and put to rest. Health care has changed exceptionally quickly due to the COVID-19 pandemic, not only negatively but positively as well. The credit to

endless research and educational tools provided to healthcare staff and clients to understand prevention and vaccination's role in maintaining a healthy population worldwide (Barría P, 2021).

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