

2015

Investigation of Reasons Children are Unvaccinated

Tracy L. Clawson
Walden University

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Walden University

College of Health Sciences

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Tracy Clawson

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Dr. Maria Revell, Committee Member, Health Services Faculty
Dr. Faisal Aboul-Enein, University Reviewer, Health Services Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University

2015

Abstract

Investigation of Reasons Children are Unvaccinated

by

Tracy Clawson

MSN, Walden University, 2014

BSN, Graceland University, 2009

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2015

Abstract

Many communicable diseases can be prevented with the use of immunizations. The issue this study addressed was the use of vaccinations and the rise of continued preventable communicable disease. Researchers have recommended that children be vaccinated, a recommendation that is bolstered by the readily available supply of vaccinations worldwide. However, even with vaccine promotions, availability, and education, children continue to be unvaccinated and outbreaks have continued to occur. For this study, data will be collected from the Iowa Registry of Immunization Records and a local community health center pediatric clinic. Examples of data that will be collected are vaccine records, race, and language spoken. Also, data from questionnaires given to parents, caregivers, and medical staff will be obtained to discover their beliefs, misconceptions, and thoughts on vaccines. The sample size will be 35, with recruitment occurring when the parent brings a child into the clinic for a well child or sick visit. The questionnaires will be collected and analyzed by totaling the responses from a pre-existing Likert scale questionnaire. The purposes of the project are to (a) discuss with health care providers a project, that consists of reasons children are not vaccinated; (b) develop a plan to determine those reasons and how to educate parents, the community being served by this health care facility and health care staff on the importance of immunizations; (c) and promote vaccinations for the this community.

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Acknowledgments

I would like to thank Joe, my husband, and our two daughters, Kristen and Natasha, for all of their support and understanding throughout this educational journey. I also would like to thank my family and friends who have supported and helped me reach this point in my education.

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Section 1: Nature of the Project

Introduction

The national health-promotion and disease prevention issue addressed in this project study was immunizations and infectious diseases (US Department of Health and Human Services, 2010). This issue has to do with vaccinations and continued disease. The expected outcome of this study has shown that researchers have recommended that children be vaccinated and there are vaccines readily available to be given worldwide. However, according to the Centers for Disease Control and Prevention, (CDC), even with vaccine promotions, availability, and education, there still has been disease and the occurrence of outbreaks due to children not being vaccinated, (2014). The purpose of this doctoral project study consists of examining reasons children are not vaccinated and how to educate parents, guardians, caretakers, and staff on the importance of immunizations as well as promote vaccinations for the greater good of the community.

Problem Statement

A new practice strategy has the potential to improve health care quality by improving the wellness of children. With more children being vaccinated, communicable diseases that can be prevented through this method will be less prevalent and cause less damage to children, costing less to parents and insurance and improving the evidence-based practice (EBP) of nursing, (CDC, 2014). Parents, guardians, and staff need to be educated on the importance of having children immunized, thereby preventing communicable diseases.

Problem Statement and Project Objectives

The purpose of the project was to educate parents, guardians, and staff members on the importance of children being vaccinated, thereby preventing communicable diseases. The target populations were the children and their parents or guardians who were patients at a community health center pediatric clinic. The pediatric clinic has approximately 5,000 patients. This clinic typically sees on average 15 to 20 patients per health care provider per day, per provider. There were three providers at the time of this project. There were a total of 3,641 patients seen from February 1, 2014 and January 1, 2015, according to the community health center's records. The goal is to ensure the vaccination health of all children. The objectives for this project are as follows:

1. Analyze vaccination data specific to children being served in the community health center (AACN, 2006).
2. Identify the number of children in Iowa who have contracted preventable communicable diseases.
3. Collaborate with inter- or intraorganization members to provide vaccine education to families of the community health center (AACN, 2006). This includes effectively communicating vaccine schedules, developing parent/guardian meetings, and handouts.

A needs assessment was conducted by looking at patient records, in the Iowa Registry for Immunizations System (IRIS), and finding out how many of the children in Iowa have contracted preventable communicable diseases, whether or not they were vaccinated, and why the parents or guardians chose not to vaccinate these children. These

reasons may have been religious, safety driven, or due to misconceptions regarding vaccines. This approach is appropriate because it is nonthreatening and takes an incremental approach (White & Dudley-Brown, 2012).

Significance/Relevance to Practice

Parents, guardians, and health care staff need to be educated on the importance of having children immunized, thereby preventing communicable diseases. When children are not immunized, for a variety of reasons, there are therefore at risk for contracting a disease and/or spreading a contagious disease to others. These reasons include religious beliefs, compromised immune systems, and parents or guardians' believing their child is at risk to develop autism or another disorder Deutchman, Brayden, Siegel, Beaty & Crane (2000). Other reasons may be due to a language barrier or socioeconomic factors, such as not having insurance, lack of education, and race or ethnicity (Adorador, McNulty, Hart & Fitzpatrick, 2011). If diseases are contracted, children can die ("Outbreak of Meningococcal Disease," 2012) or become disabled. The research problem and target population are related to the continuation of preventable childhood disease when vaccines are available. Some people are fearful in regards to change and need to be worked into the change a little at a time, to get use to the idea Hodges & Videto, D. M. (2011). Regarding vaccinations, the idea is scary to parents and caregivers and they need to be given information so they understand why their children need them. According to Osmond, Scott, and Clark (2008), there is an obvious need for additional resources for parents and caregivers to gain quality information they can trust. When they have these

additional resources readily available, they will develop clarity on the actual content and understanding related to childhood immunizations.

Evidence Based Significance of the Project

If children are not vaccinated, they may contract a disease and spread it to others. One factor that contributes to this is that if the correct easily accessible information regarding vaccines is not available to parents and guardians, then the child suffers. An example would be if parents are unaware of what immunizations the child should have and they do not obtain those vaccines for the child, the child can contract a communicable disease, which in some cases are debilitating or can cause death. Using evidence-based guidelines, quality and current up-to-date information given to the parents and guardians by health care providers, this in turn increases the quality of care the child will receive (Young, Gore, Gorman, & Watson, 2013), therefore increasing immunizations rates and decreasing communicable diseases. It is important to know why children are not vaccinated. There are many factors that may impact children not being immunized. If the reason is income based, the family may not have insurance or they may have insurance, but it may not cover immunizations. Researchers found that higher income families had higher immunization rates compared to lower income families, (Adorador, McNulty, Hart, & Fitzpatrick, 2011). Language also plays a role in immunization rates. Adorador et al. (2011) reported that Spanish-speaking families have a lower immunization rate than English speaking families. In the clinic where this project is taking place, the Spanish-speaking population has increased dramatically in the past 10

years. The rate has gone from having virtually no Spanish speaking patients to now having approximately 26% that speak Spanish.

The relationship between knowledge, research, and EBP is that they are all connected and rely on each other. Knowledge is formed from research. EBP comes from knowledge, theory, and research. Theory comes from knowledge. They exist because of each other. The relationship that exists between theory, knowledge, research and EBP supports this Doctor of Nursing Practice (DNP) project of determining why vaccines are not given to children. The knowledge will come from completing literature reviews that originated from a theory. That theory has spawned research that leads to EBP (ie. vaccine schedules). According to Terry (2012), as research is continued one must look at qualitative and quantitative designs. This has helped to guide the project by promotion of a focus on the topic and knowledge acquisition as well as locating research to support this project.

Implications for Social Change in Practice

The number of children that are or are not being immunized can be established by the EBP policies that are currently being implemented. From the research and current guidelines, new guidelines could be implemented, such as more parental and guardian education. Safety is one reason parents choose to not immunize their children (Parents of Kids with Infectious Diseases, 2014). Safety concerns include complications and side effects from the vaccine, autism link, or side effects from mercury that was once in vaccines as a preservative (CDC, 2014). If education or more education is given, then perhaps the parents would choose to vaccinate their children. However, if more children

were to be immunized, the financial burden from the families and insurance, whether private or government funded, would be reduced by not having to pay for hospital expenses or time lost from work for parents. In other words, reduced disease in children would result in less time parents would not be at work and less money they would pay for hospital expenses. According to Healthy People 2020 (2011), immunizations are the single most cost-effective preventative measure that can be implemented. The example that is given is that for each cohort of children given routine vaccinations (DTaP, Td, Hib, Polio, MMR, Hep B, Varicella), society as a whole will save 33,000 lives, prevent 14 million cases of disease, reduce direct health care costs by \$9.9 billion, and save \$33.4 billion in indirect costs (Healthy People 2020, 2011).

Definitions of Terms

Two databases were searched to find literature for this project: CINAHL and Medline. Key terms entered into the search were child, *communicable, infectious disease, preventable, vaccinations and vaccines*. The following are terms that may need definition:

Communicable disease: An infectious disease transmissible (as from person to person) by direct contact with an affected individual or the individual's discharges or by indirect means (as by a vector; CDC, 2014).

Infectious disease: A disease caused by the entrance into the body of organisms (as bacteria, protozoan, fungi, or viruses) that grow and multiply there (CDC, 2014).

Outbreak: A sudden increase in numbers of a harmful organism and especially an insect within a particular area (CDC, 2014).

Underinsured: Underinsured means that a child has health insurance, but it does not cover vaccines, or does not cover certain vaccines, or it covers vaccines but has a fixed dollar limit or cap for vaccines. Once that fixed dollar amount is reached, a child is then eligible (CDC, 2014).

Vaccinate: To inoculation; a preparation containing weakened or dead microbes of the kind that cause a disease, administered to stimulate the immune system to produce antibodies against that disease (CDC, 2014).

Assumptions and Limitations

The two forces that facilitate and promote the use of vaccines are the CDC and the American Academy of Pediatrics (AAP). However, even with vaccine promotions, availability, and education, children are still not vaccinated and disease and outbreaks continue to occur (CDC, 2014).

Examples of barriers that may pose a challenge for the promotion of vaccines are parents and communities. Some parents do not vaccinate their children based on religious beliefs while others do not give them due to misconceptions or wrong information (CDC, 2014). With issues such as these, just using one strategy would not be beneficial, there needs to be a combination of strategies. Two strategies that could address the barrier of parents not vaccinating their children based on misconceptions and wrong information could be to provide communication and educational activities (Hodges & Videto, 2011) as well as addressing the religious beliefs of the parents or guardians. These activities could include handouts, workshops, lectures, and brochures. Another barrier to this project is time constraints. With only having 2 weeks to implement and evaluate this

project, the results may not be valid. Another limitation is this project focuses only on one pediatric clinic; therefore the results cannot be generalized.

Summary

The population health promotion and disease prevention issue that was selected is immunizations and infectious diseases (Healthy People 2020, 2011). Even with vaccine promotions, availability, and education, children are still not vaccinated and disease and outbreaks continue to occur (CDC, 2014). If more children are vaccinated, less disease will be spread and fewer children will die or become disabled or deformed. Various reasons such as religious beliefs, immune compromised child or family member, education, or language barriers all contribute to this issue. The purpose of this project is to provide education to parents and staff to prevent communicable diseases.

Section 2: Review of Literature and Theoretical and Conceptual Framework

Specific Literature

Factors that contributed to this issue of children not being immunized are safety concerns regarding vaccinations and autism. A recent poll showed that 31% of parents had concerns regarding vaccine safety, and many of those parents believed there is an autism link associated with vaccines, (Buttenheim, Jones & Baras, 2012). Even among parents who vaccinate their children, 60% still had serious concerns regarding the safety of those vaccines (Buttenheim et al, 2012). According to Downey, Tyree, Huebner, and Lafferty (2010), many parents who choose not to vaccinate their children are looking to other methods, such as going to a chiropractor and having the spine put into alignment. This is to help keep the body in a state of health and boost its own immune system.

Many studies have indicated that immunizations were effective in preventable disease; however, there is the potential of side effects occurring due to those vaccines (CDC, 2014). Parents want to have more education when it comes to vaccinating their children (Harmsen et al., 2013). Parents should always be educated about vaccines and make the decision that is best for that child. However, they do need to be aware of what can happen, as well, if they decide not to vaccinate. This includes how the decision affects other children in the home, at school, and in the community. According to the CDC (2014), the vaccine rate for Iowa, for 2013, was 78.3% (plus or minus 6.7). This is a difference of 9.2 (plus or minus 3.5) with a 95% confidence level, from the previous year, for completing a series of 4 Hib (Haemophilus Influenza type B), 3 Hep B (Hepatitis B), 1 or more MMR (Measles, Mumps and Rubella), 3 or more poliovirus (Polio), 1 or more Varicella (Chicken Pox) and 4 PCV (Pneumococcal Conjugate Vaccine), (CDC, 2014). With the continued efforts of implemented strategies, the vaccine rate will only improve.

BMC Pediatrics (2012) stated that having good communication with parents would increase the rate of child vaccines. Strategies also need to address barriers such as access to health care and provider factors and ways to promote the parent–provider interaction to maintaining community assurance in vaccination. Parents of Kids with Infectious Diseases (2014) showed that handwashing is necessary to add to educating parents and children, and showing statistical evidence of how many children actually contract preventable communicable diseases and complications that can occur from those disease are more effective to promote vaccination rates (PKids, 2014).

General Literature

This evaluation of handing out and having parents/guardians complete the questionnaires has helped to find where the deficiency or lack of education is happening (White & Dudley-Brown, 2012) as well as to understand social problems that could affect the project. This evaluation has been done by this writer to be sure of what the problem was and to make a plan to correct the problem (Kettner, Moroney, & Martin, 2013). The plan consists of having an orderly step-by-step approach of what the problem consists of, what has caused it, what can be done to prevent it or stop it, and how to get to that end point. Once the planning process was completed, next was the implementation phase of actually doing hands-on work or interviewing as to why this social problem has existed and then reevaluating the situation to assess the effectiveness of the plan (Kettner et al., 2013).

Strategies that have proven beneficial in the promotion of vaccines and vaccine education are educating providers and parents on the need for vaccines, using sick visits as a time to remind parents their children will need a health maintenance exam, and which vaccines and how many the child will need at that time (Deutchman, Brayden, Siegel, Beaty, & Crane, 2000). Examples of other strategies that have been used are incentives such as a cash bonus and social events or ice cream bars provided to physicians, staff, and parents for keeping children up to date with vaccinations (Lieber, Colden, & Colón, 2003). Another strategy that has improved vaccine rates are reminder calls to the family. Evers (2001) stated that, in the past, strategies used to educate and promote vaccinations are to have immunization days at the pediatric clinics, vaccine carnivals, or mobile vans

with nurses and paramedics to give injections to children in a specific area that may not be able to commute to a doctor's office or clinic.

Conceptual Models and Theoretical Frameworks

The theory that is most appropriate for this problem is the theory of reasoned action, originally developed by Fishbein in 1960 and later revised and expanded by Fishbein and Icek Azjen (White & Dudley-Brown, 2012). The theory was based on the idea that people are rational and associate their attitudes, beliefs, and purpose to their behavior. With this theory in mind, the parents act a specific way due to beliefs or attitudes that they believe. The origin of this theory began in social psychology (White & Dudley-Brown, 2012). It may be applied to any field that deals with behavior and attitudes. In nursing, this has been applied to describe attitudes and feelings from changes in EBP to electronic medical records. This model has helped to identify reasons why children are not vaccinated and develop strategies that will improve the number of children immunized, by improving education among parents and guardians as to the importance of vaccines. Strategies that have been used to overcome barriers while engaging policy makers are to increase the amount of research that is the foundation for policy and to give a summary of the evidence from that research (White & Dudley-Brown, 2012). With these two strategies, policy makers can understand where the information is coming from as well as why the information is what it is. Having this information available makes the content able to be understood (Ridenour & Trautman, 2009), therefore improving the outcome of the number of children vaccinated.

Section 3: Methodology

Project Design/Methods

The target populations were children, their parents or guardians, and staff members. Therefore, it was important to understand the viewpoints and requests of the individuals involved. If the participants of the project did not agree with the goals, they would not want to participate. Communication was essential to determine goals and objectives. Once communication was established and goals were set, the health care providers or educators could then have the participants determine the end result and how to get to that point (Hodges & Videto, 2011). Involving the participants also increased participation. Also, with the assistance of a nurse or support staff, goals could be developed that were realistic and appropriate. When goals are appropriate, it will help to ensure a better quality of life for the participants involved (Manthey, Blix, Savik, Lowry, & Whitebird, 2010).

The theory that helped guide the change was the theory of reasoned action; however, the strategy that was used to evaluate the process was the EBP process (Mallory, 2010). This process consisted of seven steps: identify a clinical problem, access to primary research results and/or systematic, critical appraisal of research evidence, synthesize research evidence, develop guidelines, design strategies to implement changes, and evaluate the impact of change (Mallory, 2010). The basis for this strategy was to identify the problem (not having children vaccinated, due to parents/guardians not being educated on the importance of vaccines) allowed for research, which was the literary review and finding out from the parents/guardians themselves at the clinical site.

Population and Sampling

The samples that were used for this project were the patients, their parents or guardians, and staff members from the community health center pediatric clinic located in southeast Iowa. The sample consisted of a convenience sampling from patients currently and previously seen in the clinic for a minimum of 2 months prior.

Data Collection (Instrument and Protection of Human Subjects)

The intervention that was implemented started with an investigation that involved some sort of changes in subjects (Friis & Sellers, 2014, p. 373), such as parents/guardians completing a questionnaire or children having been seen in the clinic in the previous 2 months. The project lasted for a time span of 2 weeks in February 2015. The intervention included evaluating vaccine compliance, determining the educational needs of parents and guardians regarding vaccinations, such as how immunizations are given, why they should be given, and what parents' and guardians' thoughts and feelings were towards vaccinations. A parent workshop to discuss vaccines and answer questions is currently being developed and will be implemented after the project is completed, due to time constraints. The data collection provided from the facility included demographic information, such as parent income, primary language spoken in home, if the child had insurance or not, parent gender (completing form), parent age, parent educational level, and the number of children in the home. A parent questionnaire was handed to parents to complete, and participants rated their beliefs and thoughts towards vaccine administration using a 5-point Likert scale. Other data collected included vaccination rates of children, if children were vaccinated, and if parents complete an exemption form if their child was

not vaccinated. Depending on the state, parents can sign a medical, religious, or philosophical/personal beliefs exemption form. However, not all exemptions are allowed in all states (CDC, 2014). Iowa is one of the few states to allow exemption due to philosophical/personal beliefs (CDC, 2014). If the child does not have insurance or insurance does not pay for vaccines, there is a program called Vaccines for Children (VFC). This program will pay for vaccines if the child (19 years and under) qualifies for Medicaid, is uninsured, underinsured, or if they are an American Indian or Alaskan native (CDC, 2014).

Other ways to ensure information is given to parents include providing handouts and brochures to parents in the pediatric office at visits, hanging posters in clinic rooms that discuss vaccine information, and providing website addresses and links to other resources online, such as the CDC or AAP. Pamphlets that parents receive will be sure to incorporate low literacy skills as a factor. These strategies will include using a larger font, bold type for important information, only using one fact per illustration, and using familiar images (Evers, 2013). Another approach is to have question and answer puzzles in the exam rooms for parents to complete for their own information to see how much they know. The puzzles would have questions and answers. The answers would be included on the back of the page with the rationales of what the right answer is and why. Data were also compiled from IRIS. This system provides computerized tracking of immunizations for children, adolescents, and adults who are seen in a variety of public and private health care provider sites throughout the state. The IRIS program is able to

document individual immunizations and track vaccine usage and vaccine distribution (Iowa Department of Public Health, 2014).

Data Analysis (Reliability, Validity, and Analytical Techniques to Answer Project Questions)

The questionnaires were offered to every parent/guardian who met the requirements who brought their children in for an appointment during the project time frame. They returned questionnaires to me, and I placed them in an envelope for later review. The data were collected by compiling all of the questionnaires and inputting them into a spreadsheet to further analyze and process. Only I collected the questionnaires and demographic information and placed it in a locked cabinet after analysis.

Project Evaluation Plan

The four stages of evaluation, according to Friis and Sellers, (2014), are formative, process, impact, and outcomes evaluation. Formative evaluation is making sure a program will work as intended. Process evaluation is to determine if a program is helping the population it was created for. Impact evaluation measures the changes that were fashioned for the specific population. Finally, outcome evaluation performs evaluations at the end of a program to determine if the goal was met.

The national health-promotion and disease prevention issue that was selected is immunizations and infectious diseases (U.S. Department of Health and Human Services, 2010). The issue that was chosen has to do with vaccinations and continued disease. The health outcome that was chosen includes the vaccination rate improving and increasing, by educating parents on the importance of vaccines.

To incorporate the four stages of evaluation into this program, the first stage—formative—consisted of preparing educational materials and having them printed. Also, scheduling workshops for parents and reserving the rooms or buildings where they are to be held will need to be completed after the end of the project. The second stage, process, is to determine if the pediatric population was being served by collecting information from the parents. This consisted of collecting the questionnaires given to them in the clinic. A collaboration with inter- or intraorganization members to provide vaccine education to the families of the community health center will be developed at a later time. The next stage, impact, will determine if the interventions that were currently being implemented are helping the program reach the end goal of improving the vaccination rate. The first part of this stage started by collecting and evaluating the data of vaccinated and unvaccinated children and parents' beliefs and thoughts towards vaccines. As this stage progresses, more information can be collected to determine if goals are being met. The last stage, outcomes, will be the final evaluation. This will determine if the education, vaccine promotion, and workshops will be beneficial to parents and improve the vaccination rate of children. The outcomes will be evaluated by determining the number of children that contract preventable communicable diseases, why they are not vaccinated, and how education is provided to the families. An informational parent meeting, to be held after the end of the project, will be held with a pre- and posttest given to parents prior to education and after education. The clinic staff will also complete the posttest for evaluation at that time.

Summary

The data collection activities included determining the amount of children that actually contracted preventable communicable diseases, why they were not vaccinated, and how education is provided to the families. This was completed by handing out questionnaires to the parents. The pen/pencil questionnaires were offered while in the clinic for appointments. Once the data were evaluated, an educational plan can be developed and used in this office for many years to come.

Section 4: Findings, Discussion, and Implications

Summary and Evaluation of Findings

The national health-promotion and disease prevention issue that was selected for this project was immunizations and infectious diseases (U.S. Department of Health and Human Services, 2010). The specific issue that was chosen has to do with vaccinations and continued disease. The expected outcome of this study has shown that researchers have recommended that children be vaccinated and there are vaccines readily available to be given worldwide. However, according to the Centers for Disease Control and Prevention, (CDC), even with vaccine promotions, availability, and education, there still has been disease and the occurrence of outbreaks due to children not being vaccinated, (2014). The purpose of this paper was to discuss a project that consisted of reasons children are not vaccinated and to develop a plan to determine those reasons and how to educate parents, guardians and caretakers, as well as staff on the importance of immunizations and promote vaccinations for the greater good of the community.

Questionnaires regarding immunizations were given to each parent/guardian who brought their child in for a clinic visit (see Appendix A). Some visits were because the child was sick, others because they needed a health maintenance exam. Questionnaires were handed out and explained to the parent upon check in of the child at their appointment time. The clinic has approximately 250 appointments per week. Out of the 250 per week, only 39 parents agreed to participate in the survey. Out of the 39 parents, three did not sign the agreement form and one had a child that did not qualify, as she was too young. A total of 35 participants (14%) were included in the questionnaire findings. The parent/guardian pool consisted of one male and 34 female parents, ages 18 to 49 years old, and educational levels from master's degree to only completing school to fifth grade (see Appendix B). Income ranged from \$500 to \$400,000 annually with 26 speaking English as their primary language, seven having Spanish as their primary language, and one who spoke both English and Spanish in the household. The number of children in the household consisted of one to six. The type of insurance coverage consisted of 12 participants with Medicaid, 9 with Blue Cross and Blue Shield (BCBS), three with BCBS and Medicaid, and four with United Health care. The purpose of this project was to determine if more education was needed for parents in regards to vaccination. The evaluation of the findings concluded that indeed parents do need more education regarding vaccines. The two specific areas of need for further education were regarding that immunizations are associated with side effects and that children do not become infected with the disease after the child has received immunizations against disease (see Appendix B).

According to the answers from the parents/guardians, 16 out of 35 were unsure, disagreed, or strongly disagreed that vaccines are associated with side effects. There were a total of 35 participants; however, the number correlation on the spreadsheets (see Table 1) do not total to 35 in all columns as some parents chose not to answer the questions or gave two answers. Also, 13 out of 35 parents/guardians were unsure whether the child could be infected with the disease after being immunized (see Table 1).

Table 1

Parent Numerical Statistics

Table 1	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Totals	
Child Immunizations are important	28	6	1	0	0	35	
Vaccines more beneficial than harmful	23	10	2	0	0	35	
Immunizations are safe	14	18	2	0	0	34	1 not answered
Prohibited by my religion	1	1	3	6	23	34	1 not answered
Associated with side effects	2	14	14	4	2	36	1 had 2 answers
Can be infected after immunization	3	5	13	10	5	36	1 had 2 answers
Compliance is important	20	13	2	0	0	35	
Immunizations keep child healthy	19	13	3	1	0	36	1 had 2 answers

For other questions, 91.47% of parents/guardians who completed the questionnaire either strongly agreed or agreed that vaccines are important, and 88.57% felt they are safe.

Also, 91.43% of parents/guardians who completed the questionnaire believed that compliance with an immunization schedule is important, and 88.57% felt vaccines help keep their children healthy (See Table 2).

Table 2

Parent Percentage Statistics

Table 2	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Child Immunizations are important	74.33%	17.14%	2.86%	0	0
Immunizations more beneficial than harmful	65.71%	28.57%	5.71%	0	0
Vaccines for children are safe	37.14%	51.43%	5.71%	0	0
Child Immunizations are prohibited by my religion	2.86%	2.86%	14.29%	20%	57.14%
Immunizations are associated with side effects	5.71%	40%	37.14%	11.43%	2.86%
Child can become infected after vaccination	8.57%	14.29%	37.14%	28.57%	8.57%
Compliance to imm schedule is important	54.29%	37.14%	5.71%	0	0
Immunizations keep your child healthy	51.43%	37.14%	8.57%	0	0

The data collected from this facility showed that three children had been diagnosed with Varicella from February 2014 to February 2015. All three children had been previously vaccinated against Varicella, having only one dose each. Each question on the questionnaire was tabulated using a spreadsheet and the parent demographic characteristics, Walden IRB approval number 02-09-15-0328731.

Discussion of Findings in the Context of Literature and Frameworks

The findings of this project demonstrated the need for further education of parents. Handing out brochures, pamphlets, or sheets may give parents information; however, Chesser et al. (2012) suggested that physicians believe their patients' parents need more education on the importance of immunizations and need reminders to help them to remember appointments. One example of a reminder is using text messaging to notify parents of appointments. For this project, 74.33% of parents strongly agreed that

child immunizations are important and 65.74% strongly agreed that immunizations are more beneficial than harmful. The strategy that was used to evaluate this project was the EBP process (Mallory, 2010). This process consisted of seven steps: identify a clinical problem, access to primary research results and/or systematic, critical appraisal of research evidence, synthesize research evidence, develop guidelines, design strategies to implement changes, and evaluate the impact of change (Mallory, 2010). The problem was not having children vaccinated, primary research consisted of conducting a knowledge assessment of the parents by providing a questionnaire for them to complete, reviewing the data, determining that more education is needed, and a plan will be developed to implement more education to the parents of this community health center after the completion of this project.

Implications (for Practice/Action, for Future Research, for Social Change)

The vaccination rate for this clinic as of February 1, 2015 was 87.2%. The information collected regarding the need for more education in specific areas will help with practice and social change by focusing on groups that are not receiving that information and making sure they get the needed education. The more education parents have, the better informed they are to make informed decisions regarding their children and vaccines (Osmond et al., 2008). Current economic implications regarding vaccines are the features from the Affordable Care Act (ACA) that was signed into law in 2010 (U.S. Department of Health and Human Services, 2015). This law mandated that there is no cost to patients for preventative care, such as vaccinations, if seen by a provider in their network. This is to increase the amount of preventative cares patients receive, therefore decreasing disease and complications related to those diseases, (U.S. Department of Health and Human Services, 2015). Ethical and legal considerations for this topic are equally important and both need to be taken seriously. The tension exists between requiring all children have vaccinations and the parents beliefs regarding immunizations not be given to their child. The collective good of having children immunized is that it prevents and reduces the spread of communicable diseases, which can harm or even kill children. The individual rights of the parents are they believe in not immunizing their child due to religious, medical, or personal beliefs. Ethical considerations would be if members of society, as the collective good, have a right to require someone to have a vaccine or be in quarantine to benefit others. Legal considerations for this policy include quarantine and isolation. When these

safeguards are used to protect the collective good, they include the use of the least restrictive alternative, they must be fair and just, and they must use the least amount of restriction as possible (Blum & Talib, 2006).

Limitations

The strengths of this project are that it used a step-by-step plan, such as a checklist, which helped ensure the project and the evaluation phase stayed on track and on schedule (Christenbery, 2011). Another strength is that this project used questionnaires that may be returned anonymously. A limitation of this project is that it may not give an accurate representation of the entire community as it only represented 35 parents, involved only English and Spanish speaking languages, and only one male participant. Also, the time frame was only 2 weeks in length. With these limitations, the results cannot be generalized. Improvements for future projects may include broadening the questionnaire base to more than the pediatric clinic, as to get a better depiction of the number of children that contract preventable diseases and beliefs of the parents.

Analysis of Self

The dissemination of this project relates to my development as a scholar-practitioner and nurse leader by allowing myself and others to provide information that will benefit the community and patients. Information gathered and analyzed and projects implemented and evaluated are all based on EBP, which is what is used to base new practice guidelines for patient care. Future steps as a DNP include teaching in nursing education. Teaching nursing students challenges those who teach to keep up to date with skills and knowledge, which creates a cycle of learning and better outcomes for the

students and, in turn, better health outcomes for patients (Zaccagnini & White, 2011).

The definition of scholarship, according to the AACN (2006) is an activity that advances the teaching, research, and practice of nursing through inquiry that is significant, creative, can be documented, replicated, and can be peer reviewed. There are four aspects of nursing: discovery, integration, application, and teaching Glassick (2000). The AACN discussed educational opportunities, knowledge, skills, and being a positive change.

Changes I have noticed having a role as a nurse leader are that my communication skills and patience level have increased with time. These skills will continue to improve with having achieved academic goals and the tools to use knowledge to improve the outcomes of patients and nursing students.

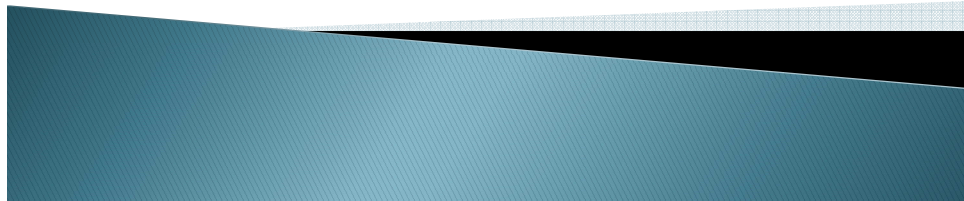
Summary and Conclusions

The finding of this project was that many parents do need to have more education regarding vaccines. There were 35 participants in this project, consisting of one male and 34 female parents, Hispanic and Caucasian, ages 18 to 49, having education levels from grade school level to master's degrees and annual incomes from \$500 to \$400,000. The most education needs were identified in female parents, ages 18 to 39, having some college, with an annual salary of \$16,000 to \$30,000 and both English and Spanish speaking. Once education has been developed and provided to the parents, the objective of increasing the vaccine rate and educating parents, guardians and staff would be complete.

Section 5: Scholarly Product

DNP Project Proposal: “Investigation of Reasons Children are Unvaccinated

Tracy Clawson
Walden University
DNP student



Project Purpose

- ▶ To educate parents, guardians and staff members on the importance of being vaccinated, thereby preventing communicable diseases.



Project Overview

- ▶ **Why children are not immunized**
 - Myths
 - Misconceptions

- ▶ **Continued Disease**
 - Vaccine promotion
 - Availability
 - Education for parents, caretakers and medical staff



Project Objectives


- ▶ 1. Analyze vaccination data specific to children being served in the community health center (DNP Essentials Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health, AACN, 2006).
- ▶ 2. Identify the number of children in Iowa that contract preventable communicable diseases.
- ▶ 3. Develop collaboration with inter or intra organization members to provide vaccine education to families of the community health center (Incorporation of Specialty-Focused Competencies into DNP Curricula, Aggregate/Systems/Organizational Focus, AACN, 2006). This include effectively communicating vaccine schedules, developing parent meetings and handouts.



Significance to Practice

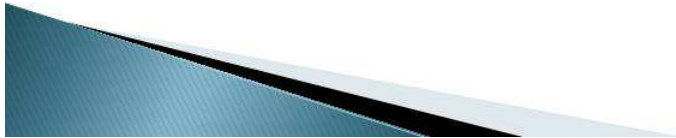
- ▶ Children are not being immunized
at risk for contracting a disease and/or
spreading a contagious disease to others
- ▶ Religious beliefs
- ▶ Compromised immune systems
- ▶ Believing their child is at risk to develop autism
or another disorder.
- ▶ Language barrier
- ▶ Socioeconomic factors, such as not having
insurance
- ▶ Lack of education and
- ▶ Race or ethnicity

(Adorador, McNulty, Hart & Fitzpatrick, 2011)



Implications for Social Change

- ▶ More education = more vaccinations (Osmon, Scott & Clark, 2008),
- ▶ Financial burden reduced
- ▶ Immunizations most cost effective preventative measure (Healthy People 2020, 2011)




Literature Review

- ▶ Vaccine safety concerns
- ▶ Parents want more education regarding vaccines (Harmsen, Doorman, Mollema, Ruiters, Kok & de Melker, 2013)
- ▶ Parent/Provider communication increases vaccination rate (BMC, 2012)
- ▶ Show parents statistical evidence



Literature Review

- ▶ **Educate medical staff**
 - Promoting vaccines
 - Discussing why vaccines are important
 - ▶ **Utilize sick visits to remind about vaccines**
 - How many the child will need and
 - Which vaccines the child will receive
 - ▶ **Use of incentives**
 - Cash Bonus
 - Ice Cream Bar
 - Social Events
 - ▶ **Reminder calls to parents regarding health maintenance exams and vaccines needed**
- 

Theory

- ▶ Theory of Reasoned Action by Martin Fishbein, 1960 (White & Dudley-Brown, 2012)
- ▶ People are rational and associates their attitude, beliefs and purpose to their behavior
- ▶ With this theory in mind, the parents act a specific way due to beliefs or attitudes that are believed



Project Design

- ▶ Project 2 week span
- ▶ Parent questionnaires – thoughts/feelings regarding vaccines
- ▶ Parent demographic sheet
- ▶ Determine vaccine rate, actual disease rate
- ▶ Compile data – vaccine records, demographic information



Summary of Project

- ▶ **35 participants in this project consisting of:**
 - 1 male and 34 females
 - Hispanic and Caucasian
 - Ages 18 - 49
 - Education levels from grade school level to masters degrees
 - Annual income range from \$500 to \$400,000
 - Private and Medicaid Insurance coverage



Findings

- ▶ Many parents do need to have more education regarding vaccines
- ▶ The most education needs were identified in females, ages 18–39, having some college, with an annual salary of \$16,000 to \$30,000 and both English and Spanish speaking



Results


- ▶ The two specific areas of need for further education found from the parents are:
 - Immunizations are associated with side effects
 - Children do not become infected with the disease after the child has received immunizations against disease



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Appendix A: Parent Questionnaire

Investigation of Reasons Children are Unvaccinated

1. Child immunizations are important

Strongly Agree Agree Not sure Disagree Strongly Disagree

2. Immunization is more beneficial than harmful

Strongly Agree Agree Not sure Disagree Strongly Disagree

3. Vaccines for child immunization are safe

Strongly Agree Agree Not sure Disagree Strongly Disagree

4. Child immunization is prohibited in my religion

Strongly Agree Agree Not sure Disagree Strongly Disagree

5. Immunizations are associated with side effects

Strongly Agree Agree Not sure Disagree Strongly Disagree

6. Child can become infected after immunization with the disease/s against which he/she was vaccinated

Strongly Agree Agree Not sure Disagree Strongly Disagree

7. Compliance to the immunization schedule is important

Strongly Agree Agree Not sure Disagree Strongly Disagree

8. Immunizations keep your child healthy

Strongly Agree Agree Not sure Disagree Strongly Disagree

Citation: Yousif MA, Albarraq AA, Abdallah MAA, Elbur AI (2013) Parents' Knowledge and Attitudes on Childhood Immunization, Taif, Saudi Arabia. *J Vaccines Vaccin* 5:215. doi: 10.4172/2157-7560.1000215

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Appendix B

Parent Demographics

Gender
Male
Female
Age Groups
18-29
30-39
40-49
Educational Level Completed
Masters
Bachelors
Associates
Some College
High School
GED
Primary/Middle school
Yearly Income
500 - 15,000
16,000 - 30,000
31,000 - 45,000
46,000 -60,000
61, 000 - 85, 000
86,000 - 105,000
106,000 - 400,000
Primary Language Spoken
English
Spanish
English & Spanish
Number of children in home
one
2 to 3
more than 3
Child Insurance Type
Medicaid
Blue Cross and Blue Shield
BCBS & Medicaid

United Health Care
