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Increasing HPV Vaccination Rates among Adolescent Males: A Toolkit for Parents

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This is to certify that the doctoral study by

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2014

Abstract

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Project Submitted in Partial Fulfillment

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Abstract

According to the Centers for Disease Control and Prevention (CDC), there are approximately 14 million new cases of HPV diagnosed each year (men and women combined). The rate of vaccine administration among adolescent males is much less than it is among females. As a result, the CDC has urged health care providers to work with state and local health care providers to improve the utilization of the HPV vaccine. The purpose of this scholarly project was to develop an educational toolkit, one guided by Ajzen and Fishbein's theory of reasoned action, regarding the value of the HPV vaccine. The toolkit was offered through both online and hard copy formats and provided parents of adolescent males with information regarding HPV, the HPV vaccine, helpful websites, and references. The toolkit's efficacy will be determined by a comparison of annual vaccination rates. This project fills a significant knowledge gap in the scholarly literature, as there were only 8 articles that met the inclusion criteria in the review of literature. It also provides a guide for other outpatient clinics that may want to implement a comparable toolkit.

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Dedication

I would like to dedicate this project to the loving memory of my brother, Jerry, who always wore my successes as his badges of honor.

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I would like to thank Ezra for his constant support and encouragement throughout my doctoral studies. He has done more than his fair share of cooking and chores to ensure my success in this program. In addition, I would like to thank my parents, Larry and Joyce, who have shown me unconditional love and support. My parents instilled the importance of education. They reinforced that I can achieve anything through hard work and dedication.

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Section 1: Overview of the Evidence-Based Project

Introduction

Human papillomavirus (HPV) is one of the highest reported sexually transmitted infections (STI) within the United States (Centers for Disease Control and Prevention [CDC], 2012a). The rate of vaccine administration among adolescent males is much less than among females. According to the CDC, 2012b, 20.8% of adolescent males (11 to 17 years of age) have received at least one dose of the HPV vaccine, and only 6.8% have completed the entire HPV vaccine series. There are approximately 79 million Americans living with HPV. The CDC (2014b) has estimated that 14 million new HPV infections are diagnosed each year (men and women combined). There are so many new HPV infections that all sexually active men in the United States will contract at least one type of this virus annually (CDC, 2013a).

The issue of HPV transmission among males is overwhelming, and current estimates are that over 400 men will develop penile cancer, 1,500 will develop anal cancer, and 5,600 will develop oropharyngeal cancer each year (CDC, 2014b). The lifetime costs associated with treating chronic STIs, including HPV, is approximately $16 billion. Since HPV is one of the most commonly acquired STIs, it is one of the most expensive to treat, due to the volume of new infections that are diagnosed each year (CDC, 2013b). Many adolescents will be exposed to HPV within the first year of becoming sexually active (Daley, 2011). As a result, the need to improve HPV vaccinations among adolescent males is a public health issue that health care providers must address during clinic appointments.

This project was based on the needs of the community (Kettner, Moroney, & Martin, 2013). Nurses are expected to understand the community in which they reside and practice professional nursing. Understanding the community refers to the health status as well as any potential threats to health and safety (American Nurses Association [ANA], 2001). According to a nurse at a health care facility in a rural town in Texas, primary health care providers have identified underutilization of the HPV vaccine as a public health problem (H. Jeffreys, personal communication, September 8, 2013). One potential threat to the health of the identified rural community is the spread of STIs. Health care providers must address this public health issue during clinic appointments, such as those appointments for seasonal illnesses and annual school physicals (H. Jeffreys, personal communication, August 5, 2014). Health promotion and disease prevention requires a variety of complex interventions from all health care providers within the community. This scholarly project addresses a public health issue that is focused on the individual patient, the family unit, and the community.

Background

Researchers have identified over 100 different types of HPV (McCutcheon, 2009). Of these different types, approximately 30 are known to be transmitted sexually. An individual may have an active infection with more than one type of HPV at the same time. When compared to other STIs, HPV cannot be cultured. Diagnosis is often made upon physical examination with most individuals being asymptomatic. Once the HPV infection is present, there is no cure, and the focus of treatment is to control the number of visible lesions, regardless of the anatomical site (McCutcheon, 2009).

HPV prevention should include more than the vaccine. The male adolescent may require education on the appropriate use of condoms. In addition, it is also important for the adolescent to understand that HPV infections can spread to areas that condoms do not protect, such as the pubic area (Jordan, 2008). It is equally important to teach parents of male adolescents the importance of HPV and STI prevention (McCutcheon, 2009).

Vaccinating males against HPV can be effective not only for the male, but for each sexual partner. Effective inoculation requires a series of three injections that should be administered over a 6-month period. The effectiveness of the HPV vaccine is approximately 89.3% if the entire vaccination series is completed (Campos-Outcalt, 2012). The CDC recommends that the vaccine be administered before the initiation of sexual activity (Johnston, 2011). The vaccine recommended for maximum protection is the HPV4 vaccine that is designed to protect individuals against HPV Types 6, 11, 16, and 18 (CDC, 2011). The Advisory Committee on Immunization Practices (ACIP) recommends that the vaccine be administered to males between the ages of 11 and 21 years. Additionally, the vaccine should be administered to men between the ages of 22 and 26 years who are known to have sex with men or who are infected with HIV (Campos-Outcalt, 2012). For the purposes of this project, the focus was on parents of adolescent males between the ages of 11 and 17 years.

The CDC is the foremost authority on communicable diseases and the vaccines that can prevent those diseases in the United States. There are no federal or state regulations in the United States that mandate the HPV vaccine for all adolescents. Many health care providers continue to present the HPV vaccine as an optional vaccination as

compared to those vaccinations that are required. As a result, this leads to missed opportunities for vaccination. Additionally, health care providers are reluctant to engage in discussions regarding HPV and the vaccine, and parents become hesitant and reluctant to accept the vaccine (Stokley, 2013).

A person should not be vaccinated in some extenuating circumstances. First, anyone who has had a severe or life-threatening reaction to any component of the vaccine should not be vaccinated. Second, pregnancy is a contraindication for vaccination. Last, a person should not be vaccinated who is moderately or severely ill (CDC, 2014b).

Among males, the long-term implications of contracting HPV are the development of penile, anal, oral, and pharyngeal cancers (CDC, 2011). Vaccinating males against HPV addresses a vital issue in preventative medicine. In June 2006, the Food and Drug Administration (FDA) originally approved the HPV vaccine for adolescent females. The vaccine was marketed successfully to prevent cervical cancer caused by four different types of HPV (CDC, n.d.). In 2009, the FDA approved the HPV vaccine to prevent genital wart infections in males. In October 2011, the ACIP recommended that the vaccine be administered to adolescent males for the prevention of the above-mentioned cancers known to be caused by HPV (CDC, n.d.). However, parents must give consent for their adolescent sons to receive the vaccination.

My role in this scholarly project was the development of an HPV educational toolkit for parents of adolescent males. The need for this project was identified through the CDC's (2013) press release that urged all health care providers to work with state and local health providers to increase the utilization of the HPV vaccine. Health care

providers at my practicum facility, as well as my mentor, were supportive of this scholarly project and planned to implement the educational toolkit upon completion (H. Jeffreys, personal communication, September 8, 2013). I developed an evidence-based fact sheet to distribute to all parents of adolescent males in the clinic, referring them to the facility's website where the toolkit will be available, allowing parents to view the information about HPV and the HPV vaccine before the next scheduled appointment. Furthermore, this scholarly project supported the recommendation for primary prevention in order to improve the health care outcomes of a community. Primary prevention interventions are designed to change behaviors or beliefs (Friis & Sellers, 2009). Lastly, this educational toolkit supported the emerging role of the DNP-prepared nurse through the development of educational prevention resources within the community (Zaccagnini & White, 2011).

Problem Statement

Since there was an identified need to increase the number of HPV vaccinations among adolescent males, ages 11 to 17 years, and parents had to consent for the vaccination, the problem statement for this Doctor of Nursing Practice (DNP) project is: There is a lack of understanding among parents of adolescent males regarding the importance of being vaccinated against HPV.

Purpose Statement and Project Objectives

The purpose of this scholarly project was to develop an educational toolkit for parents of adolescent males regarding the value of the HPV vaccine. An educational toolkit can take many different forms. A toolkit may be written and may be accessed by

website. An educational toolkit is an intervention that is designed to provide patients and families with the most current information and evidence-based resources in clinical practice (Hopkins, DeCristofaro, & Elliott, 2010). The CDC urged health care providers to work with state and local health departments to increase the utilization of the HPV vaccine. It is imperative to teach parents of adolescent males the importance of receiving this vaccine. The majority of the published literature emphasizes the importance of immunizing adolescent females and to educate health care providers, but evidence-based literature for parents is limited. There is a need to contribute to the current body of knowledge that outlines the importance of vaccinating males. This project addressed the development of an educational toolkit that will provide resources for parents on the importance of protecting their male children 11 to 17 years of age against HPV.

For the purposes of this DNP scholarly project, the focus was on one objective outlined in Healthy People 2020. Healthy People 2020 is an initiative that focuses on health and wellness for all people in the United States. One of the objectives is to focus on STI prevention (U.S. Department of Health & Human Services, 2010). This objective was directly related to this scholarly project. The project was designed to educate parents on the benefits of vaccinating their adolescent sons against HPV.

Significance/Relevance to Nursing Practice

There are serious short-term and long-term consequences of not addressing the issue of vaccinating adolescent males against the HPV virus, which may not be seen for decades. The short-term consequences are most commonly associated with genital wart outbreaks (Giuliano, Palefsky, & Goldstone, 2011). The most severe consequences are

associated with long-term HPV infections. The long-term consequences of HPV infection are different forms of cancer. Those cancers include oral cancer, pharyngeal cancer, anal cancer, and penile cancer (CDC, n.d.). No studies have identified a specific timeframe between exposure to HPV and the development of a particular malignancy. It may be decades before the long-term consequences of HPV are discovered (Jordan, 2008).

The financial implications of treating STIs, including HPV, are direct and indirect costs that can approach $16 billion (CDC, 2013b). The direct costs are associated with treating the genital wart outbreaks, and the indirect costs are associated with the medical and surgical treatments associated with the long-term consequences of HPV (CDC, 2013b). Since HPV is one of the most common STIs and has a large number of short-term and long-term consequences, it is one of the most expensive to treat (CDC, 2013b). The financial implications may not be seen for decades since it may take this long for the consequences of HPV to emerge (Jordan, 2008).

The health care system in the United States is one of the most expensive and costly in the world (Bodenheimer & Grumbach, 2009). Unfortunately, a decrease in the cost of health care treatment is not foreseeable. The result of high costs may be a loss of life for those who cannot afford health care treatment. Treating genital warts and various forms of cancer is costly, much more than the cost of the vaccine itself. The average cost of the quadrivalent vaccine is $130 to $140 per dose. Three doses of the vaccine are required to complete the vaccine series. Parents need to speak with the health care provider in order to determine if the HPV vaccine is covered by insurance. However, if

the child is uninsured or underinsured, the federal Vaccines for Children (VFC) program covers the HPV vaccine at no cost to the parents. The VFC program will cover children up to the age of 19 years (Society of Obstetricians and Gynaecologists of Canada, 2013).

Project Question

All health care providers have a responsibility to improve prevention efforts due to rising health care costs (Ridenour & Trautman, 2009). Practicing preventative medicine is essential during a time of health care uncertainty. Preventative medicine begins with patient education. Professional nurses have a responsibility to provide education to patients. The ANA's Code of Ethics reinforces nurses' responsibility to the public. Nurses are expected to provide interventions that will promote health, wellness, and meet the specific needs of all patients. Such interventions include patient education. Patient education is not only necessary and important, but it is an expectation and a duty outlined in the ANA's Code of Ethics. In response to this public health issue, the question that framed this scholarly project was: What evidence-based resources are needed to develop an educational toolkit designed to educate parents of adolescent males, ages 11 to 17 years, about the benefits of HPV vaccinations?

Evidence-Based Significance of the Project

When creating a project that addresses issues related to sex and STIs, researchers should be prepared to receive a wide variety of opinions and emotions. A discussion of sex and STIs can be an emotionally charged topic for parents (Wilson, Dalberth, Koo, & Gard, 2010). Emotional triggers may be parents not knowing how to talk to their children about sex, being embarrassed to discuss sex, and family dysfunction regarding

sex (Wilson et al., 2010). Organizations that support projects of this nature are primary practices for women and pediatrics as well as health departments across the United States. The target population (parents) should be aware of the purpose and goals of the project. The purpose of this disclosure was to improve the long-term goal of the project, which is the completion of the HPV vaccine series (Hodges & Videto, 2011).

In order for health care providers to promote health and wellness, they must provide education about vaccines for adolescent patients and parents. As researchers publish new research findings in peer reviewed journals, it is critical that the medical community as well as the public receive this information. Health care providers, who provide the public with the most current evidence-based practice, can dispel any misconceptions regarding the importance of vaccines (Niederhauser & Baker, 2011). The reasons why adult men seek HPV vaccination may be much different from the reasons why parents would want to vaccinate their son. Adult men are more concerned with preventing genital wart outbreaks, and parents are more concerned with preventing long-term consequences of HPV (Jones & Cook, 2008). Additionally, information in the toolkit can be modified to include the latest evidence-based literature as well meet the cultural needs of the community (Paterson, Sock, LeBlanc, & Brewer, 2010). For this reason, a toolkit for parents will allow health care providers to communicate the most current evidence-based practice.

Educational toolkits can be utilized to disseminate evidence-based information found in the literature. The information gained from a literature review can provide a framework for the care of the adolescent male, in particular, vaccination against HPV that

can offer self-protection and partner protection for a lifetime. A toolkit can organize evidence-based information about HPV, the vaccine, and ways to overcome barriers to the HPV vaccine. Information contained in the toolkit can affect target behaviors (Savarimuthu et al., 2013). It is necessary to identify and examine barriers of the desired behavior before designing and implementing the toolkit. Additionally, an educational toolkit, along with scripted talks, can encourage and enhance open discussions regarding difficult subjects, such as sexual activity, whether between parents and adolescents, between health care providers and parents, or between health care providers and patients (Perrin et al., 2010).

Educational toolkits have proven successful in a variety of clinical settings. Use of toolkits can bring change as well as prevent disease (Hopkins, DeCristofaro, & Elliott, 2010). Toolkits organize information in a way that is less overwhelming for the parents of adolescent males. Should the parents become overwhelmed with the presented information, they can access smaller sections of information and return to the toolkit at a later time (Paterson et al., 2010). As health care changes, the role of nurses is becoming increasingly important. Nurses are expected to take a leading role in health care reform (Bodenheimer & Grumbach, 2009). In order to lead this change, there will need to be a strong focus on preventative medicine. An educational toolkit can have a positive impact on health care for entire communities and populations by assuring that all parents of adolescent males will be provided with the latest evidence-based findings on HPV vaccinations. The latest research will ensure an informed decision (Spruce & Sanford, 2012). As previously stated, the educational toolkit will be used in conjunction with

face-to-face, scripted interactions between the health care provider, the patient, and the parents (Lobban et al., 2011). The toolkit is not intended to replace face-to-face interactions with the health care provider.

Implications for Social Change in Practice

When analyzing this social problem, it was important to understand the needs of the community and its citizens before attempting to identify a solution. A community should be viewed as a living, breathing organism that has its own needs and its own desires. It is necessary to connect with members of the community when addressing public health issues. Health care providers must remain open and nonjudgmental when discussing STIs such as HPV (Blackwell, 2014). A public health problem is one that focuses on the needs of a community or group (Kettner, Moroney, & Martin, 2013). The public health problem of low numbers of adolescent males who are receiving the HPV vaccine series requires an understanding of the health care processes at work, which processes do not work, and what can be done to improve the current process. I developed an educational toolkit to inform parents about the benefits of HPV vaccination. Currently, there are only HPV toolkits for females and health care providers (Society of Obstetricians and Gynaecologists of Canada, 2013). This DNP project filled this gap by developing a toolkit specifically for parents of adolescent males.

In order to increase the numbers of adolescent males receiving the HPV vaccine, there must be an understanding of parents' beliefs and perceptions regarding the vaccine. Any questions or concerns regarding the vaccine should be addressed as soon as possible to avoid any misconceptions or misunderstandings. The number of adolescent males

impacted by this public health problem must be collected and compared to previous years to understand the reduction in numbers within the rural clinic.

Definition of Terms

For the purpose of this project, an *educational toolkit* is an intervention designed to provide patients and families with the most current evidence-based information in clinical practice (Hopkins, DeCristofaro, & Elliott, 2010). The educational toolkit was designed to address health concerns for the male population regarding HPV and the HPV vaccine, and it will be available on the health care facility's website. An *evidence-based fact sheet* is an informational handout designed specifically for parents of adolescent males to provide direction to resources and information found on the educational toolkit. Parents will receive this informational handout so that they can view the toolkit (on the facility's website) before the next scheduled visit. *Adolescent males* referred to male patients between the ages of 11 to 17 years. *HPV4 vaccine* referred to the quadrivalent vaccine designed to protect against HPV types 6, 11, 16, and 18. *Parents of adolescent males* are any individual or individuals who have custody of and are responsible for the health care of the adolescent male.

Assumptions, Delimitations and Limitations

As with any scholarly project, this project contained assumptions and limitations that I acknowledged. Assumptions were that the parents of both male and female children are more likely to understand the benefits of the vaccine as compared to those who only have male children. A second assumption for this scholarly project was that mothers were more likely to consent to the HPV vaccine administration since mothers

were most often the parent present with children at clinic visits. Finally, based on the press release issued by the CDC, it was assumed that the public health problem of poor HPV vaccination rates among adolescent males is the same public health problem faced in other primary health care clinics across the United States.

I identified one delimitation and several limitations with this scholarly project. The delimitation was the fact that this toolkit was specific to parents of adolescent males between the ages 11 to 17 years. One limitation of this DNP project was that social media campaigns have promoted HPV vaccinations for females and not males as evidenced by current television commercials and print advertisements. Other limitations pertained to parents having the ability to read, read in English, and have little visual impairment. The website version of the toolkit is only available to those parents with Internet access by computer, tablet, or smart phone. The evidence-based fact sheet and educational toolkit were written in English. Parents must be able to read English. Parents must have no visual impairments that will prevent reading.

Resolution of limitations provides an opportunity to advance additional scholarship through creativity and inquiry (Zaccagnini & White, 2011). The development of this educational toolkit was an attempt to address the public health issue of a lack of HPV vaccine promotion for adolescent males. If parents do not have access to a computer, a tablet, or smart phone, they can access the Internet through the public library or a friend's device. If the public library or friend is not an option, then the parent talk with a staff member at the clinic and arrange to view the toolkit. Screen readers are available for the severely visually impaired that will allow for a reading of information

presented on a computer screen. This technology can also be used for those who cannot read. The evidence-based fact sheet and the educational toolkit were written in English. Both tools can be translated in other languages in order to meet the needs of the community.

Summary

Improving HPV vaccination rates among adolescent males is a social problem that must be addressed. The protection offered by this vaccine can protect patients as well as partners. An educational toolkit for parents of adolescent males provided information that will benefit the adolescent male population. This educational toolkit began to fill the gap of providing specific information to parents, which is lacking for males about HPV vaccination, since all media campaigns have been targeting females. The following chapter will provide a review of literature to reinforce the significance and need of this scholarly project while adding to the current body of knowledge.

Section 2: Review of Literature and Theoretical Framework

Introduction

The purpose of this literature review is to increase knowledge and to support the identified public health problem of a low rate of HPV vaccinations among adolescent males by developing an HPV educational toolkit for parents. When creating an educational toolkit, it is important to understand barriers that have been identified regarding the HPV vaccine. The scholarly literature supports the importance of disease prevention and health promotion. Vaccine administration is one of the greatest methods that can be implemented to prevent disease. This section will review scholarly literature to gain a better understanding of the general knowledge of HPV and the HPV vaccine as well as of parents' and sons' beliefs and decisions regarding HPV vaccinations.

Literature Search Strategy

I conducted a comprehensive review of the literature in order to identify scholarly articles published between 2009 and 2013. The narrow date range is because the HPV vaccine was only approved for use in the male population in 2009. Prior to 2009, the literature focused on the female population only and the barriers and benefits of the vaccine in preventing cervical cancer. I used the following online databases for the literature search: Cumulative Index of Nursing and Allied Health Literature (CINAHL), Medline, Proquest, and Ovid Nursing Journals. I searched these databases using a Boolean search strings composed of the following key terms: *human papillomavirus*, *HPV*, *human papillomavirus vaccine*, *HPV vaccine*, and *males*. Using these key terms resulted in 753 articles.

I reviewed the abstracts of articles to determine the relevance and inclusion for this literature review. I excluded articles for the review if they were conducted prior to 2009, if the study was completed outside the United States, if the article was published in a language other than English, and if the articles were not specific to the male gender. I also excluded mortality and morbidity reports, commentaries, and expert opinion pieces from this review. Once I identified articles for inclusion, I carefully reviewed each publication carefully and analyzed it for the study's purpose, design, population sample, findings, and limitations. Eight articles met the inclusion criteria.

Males' Knowledge of HPV and HPV Vaccine

Krawczyk et al. (2013) conducted a quantitative study to measure knowledge about HPV among adult males as well as the intent to receive the HPV vaccine. Participants included 128 males who were attending college full time. Each participant completed a questionnaire that assessed demographics, health, objective knowledge of HPV and the HPV vaccine, and perceived knowledge of HPV and the HPV vaccine. The average age of the participants was 20.8 years. Eighty-three percent reported having had sexual intercourse at the time the survey. The average age of the participants at the onset of sexual activity was 17 years. The average number of sexual partners was four. When questioned about having been tested for STIs, 48% had been tested, and approximately 6% had tested positive for an STI during their lifetime. Majority of the participants reported knowing about HPV (83%) and the HPV vaccine (73%). Less than one half of the participants (41%) indicated that they intended to receive the vaccine. Heterosexual men revealed that they had less intention of receiving the HPV vaccine. Men who

intended to receive the vaccine were also more likely to use condoms during sexual intercourse. The findings showed a strong correlation between perceived knowledge and actual HPV knowledge. Perceived knowledge was defined as a person's belief system, which serves as motivation for action, and actual knowledge was defined as a general awareness to promote informed decision-making. A limitation of the study is that the findings could not be generalized beyond the small sample size of 128 college males. This study reinforced the fact that men should be educated on the HPV vaccine as well as the disease itself.

Nandwani (2010) conducted a systematic review of literature on 14 articles that examined men's knowledge of the HPV vaccine as well as factors that would influence vaccination rates. Findings indicated that there was limited knowledge among men about HPV and the HPV vaccine in Malaysia, Holland, Sweden, Australia, the United Kingdom, and United States. High school and college students learned about HPV in health class, from friends, media sources, and parents. There were numerous factors identified that influenced the acceptance of the HPV vaccine among males. Influential factors were perceived susceptibility of HPV, lack of knowledge regarding HPV and the HPV vaccine, the vaccine not being recommended by a physician, vaccine availability, cost, and safety and efficacy. The vast majority of patient education for the HPV vaccine has focused on the prevention of cervical cancer. This systematic review of the literature reinforced the need to improve patient education for HPV and the HPV vaccine for males (Nandwani, 2010).

Parents' and Sons' Beliefs and Decisions Regarding HPV Vaccinations

Perkins et al. (2013) conducted a qualitative study to examine the attitudes of 120 low-income and minority parents of adolescent males (11 to 17 years of age) toward the HPV vaccine. Participants for the study were of mixed ethnicity with 68 being African American, 24 being Caucasian, and 28 being Latino. The mean age of the sons was 14 years, and the mean age of the parents was 43.5 years. Perkins et al. identified and compared common themes among the ethnic groups that participated in the study. Findings revealed that only 50% of the parents had heard of the HPV vaccine. If recommended by a physician, 75% of the parents would accept the vaccine for the children. Overall, there were no differences noted between the ethnic groups regarding attitudes and beliefs about vaccinating their male children. African American and Latino parents were more likely to support a school mandate for the HPV vaccine as compared to Caucasian parents. All ethnic groups agreed that there was less information available for the use of the vaccine in males as well as a lack of knowledge regarding the safety and efficacy of the vaccine. Some parents were afraid that the vaccine would promote promiscuity and unsafe sexual activity. Parents wished to see more information that was specific to males. The limitations of the study were that the findings could not be generalized beyond the small sample size of 120 parent participants, and the study was conducted in a state that required all citizens to have insurance coverage, limiting the impact of inadequate accessibility (Perkins et al., 2013).

Alexander et al. (2012) conducted a qualitative study that analyzed parents' and sons' decision-making process regarding acceptance of the HPV vaccine. There were 23

parent-and-son dyads chosen as participants for the study. The parent group consisted of 17 females and six males. Participants of the study comprised mixed ethnicities (African American, Hispanic, and Caucasian). The parents ranged in age from 31 to 53 years with a mean age of 38.9 years. Over half of the parents (n = 12) identified as single parents and less than half (n = 11) had at least a high school diploma. The son group consisted of 14 African Americans, five Hispanics, and two Caucasians. The average age of the sons was 13 to 17 years with a mean age of 14 years. Alexander et al. collected data via semistructured interviews. The interviews for the parents and the sons included topics on HPV knowledge, information provided by physicians, and the decision-making process. One dominant theme was the lack of physician recommendations regarding administration of the vaccine. Findings indicated that the decision-making process was not a dialogue solely between the parents and sons, but that also included the physician. Parents and sons agreed that the prevention of genital warts was the main reason to be vaccinated, followed by the prevention of cancer. Parents wanted to protect sons, and sons wanted to maintain long-term health. There was a misconception on behalf of some parents that the vaccine would protect children against other STIs. One limitation of the study was that it only included sons between the ages of 13 and 17 years, when the vaccine has been approved for males 9 to 26 years (Alexander et al., 2012).

Cates et al. (2012) triangulated data in order to determine what factors motivated a sample of 29 African American parents to vaccinate their sons (11 to 12 years of age) against HPV. African American parents (n = 29) were chosen because they are known to be less aware of HPV and the HPV vaccine and are at a higher risk for STIs and HPV-

related cancers. Participants were recruited through churches and a middle school, which the children attended, and through a university-based clinic. Cates et al. conducted five focus groups. They used chi square tests to assess differences in parents' gender, age, race, age of sons, and the likelihood of vaccination. Participants expressed a low awareness of HPV and the HPV vaccine. All parents agreed that their sons were at risk for STIs. Overall, parents were confident about the vaccine preventing infection. Identified barriers for vaccinating their sons included cost of the vaccine and the perceived side effects, along with the lack of knowledge about the long-term efficiency of the vaccine. One limitation of the study was that the sample represented only one ethnic/racial group; therefore, the findings cannot be generalized to other racial groups (Cates et al., 2012).

Walhart (2012) conducted a review of literature to identify parental beliefs, attitudes, and barriers to the HPV vaccine with sons. The publications included in the review were limited to 5 years (2006 to 2011). This review of literature identified gaps in knowledge relevant to fathers, urban participants, low socioeconomic status, and ethnic minorities. Beliefs and attitudes of the HPV vaccine included religious convictions with Christians more likely to vaccinate their sons when compared to those who do not practice Christianity. Attitudes and beliefs varied among ethnic groups regarding the vaccine. African Americans were more suspicious of the vaccine while Latina mothers were more likely to vaccinate their sons against HPV when compared to other ethnicities. Barriers to vaccination included fear that if vaccinations were administered before the age of 12, promiscuity would be increased and that some parents felt that their sons would not

accept other forms of prophylaxis, such as condoms if vaccinated. Fathers were found to be less likely to vaccinate sons when compared to mothers. Lastly, the cost of the vaccine was the final barrier identified. Parents were more likely to vaccinate sons if the vaccine was offered free of charge (Walhart, 2012).

Joseph et al. (2013) conducted a mixed methodology study to identify ethnic differences regarding perceived benefits and barriers of the HPV vaccine. However, quantitative data were not reported in this publication. Participants for this study consisted of 89 males (18 to 22 years of age): 31 were African American, 26 were of Haitian descent, 18 were Latino, and 14 were Caucasian. Participants were chosen by convenience sample from a health care clinic. All participants participated in a survey and semistructured interviews. Interviews were recorded and coded by two independent investigators. Benefits of the HPV vaccine were identified as the prevention of oral and anal cancer and protection against an STI. Barriers to HPV vaccinations varied according to ethnicity. Caucasians reported not knowing side effects of the vaccine, African Americans voiced concerns regarding liver damage and insanity, and Haitian participants were concerned about allergies and autism. Latinos were less likely to receive the vaccine unless recommended by a physician rather than a physician assistant, nurse practitioner, or nurse. Findings from this study suggested that cultural sensitivity should be taken into consideration when discussing HPV vaccinations. Education initiatives can promote awareness while dispelling myths. One limitation of the study was the small number of racially/ethnic participants.

Reiter et al. (2013) conducted a longitudinal study to examine HPV vaccine uptake and vaccine predictors among adolescent males. The national sample consisted of 327 parents and 228 sons (11 to 17 years of age) who participated with the parents. Participants for this study were from 46 states as well as the District of Columbia and completed a baseline survey and a follow-up survey 3 months after the baseline. Surveys were administered online. The majority of the parents were less than 45 years of age (56%), non-Hispanic (68%), married (80%), and resided in urban areas (84%). Significant predictors for not vaccinating their sons against HPV were related to a lack of information regarding the vaccine (23%), not receiving a physician's recommendation for the vaccine (17%), concerns that the vaccine was unsafe (10%), and the fact that the vaccine was new to the market for administration to males (5%). One significant finding was that a physician's recommendation for parents might be the most promising strategy for increasing HPV vaccination rates among males (Reiter et al., 2013).

Educational Toolkit Development and the Theory of Reasoned Action

The theoretical framework chosen to guide this DNP project was Ajzen and Fishbein's (1980) theory of reasoned action. The theory of reasoned action originated in the field of social psychology in the late 1960s, is considered a predictor of human behavior, and explains behavioral intentions, whether positive or negative, as compared to social standards. Essentially, people make decisions based on the information that is either available or provided (McEwen & Wills, 2011). This theory can be used in multiple areas of professional nursing practice when developing interventions designed to modify patient behaviors (Goldenberg & Laschinger, 1991). Applications of this theory

can be ideal for parents of adolescent males, who are at high risk for STIs (Roberto, Krieger, Katz, Goei, & Jain, 2011). This theory states that an individual will engage in certain behaviors based on the attitude of the person and a social norm. Social norms are behaviors in response to socially desirable attitudes and beliefs based on the attitude of the individual (Ortega, Huang, & Prado, 2012).

Experts argue that if this theory can be used in the patient population, then it can also be used when explaining physician behavior, and in the case of this scholarly project, parent behaviors (Roberto, Krieger, Katz, Goei, & Jain, 2011). The parental behavior in this project refers to the decision-making process that will occur after the parents view the education toolkit. Although a predictor of behavior, this theory reinforces the notion that certain circumstances, such as those stemming from personality traits, educational level, socioeconomic status, and personal experiences may not lead to the desired behavior (Natan, Beyil, & Neta, 2009). The theory of reasoned action has been effectively used in health behaviors that pertain to contraception, which is similar to this scholarly project and can be predictive in influencing parents' decision to vaccinate or not vaccinate after viewing information from the educational toolkit (Goldenberg & Laschinger, 1991).

Summary

The literature review resulted in a small number of articles ($x = 8$) that met the inclusion criteria. I identified several common themes. Dominant themes were males' knowledge of HPV and the HPV vaccine, and parents' and sons' beliefs and decisions regarding HPV vaccinations. The review of the literature supports the need for an

educational toolkit to increase HPV vaccination rates among adolescent males. The educational toolkit will address each theme identified in the literature review. Addressing each theme will allow the parents of adolescent males to make an informed decision regarding HPV vaccinations. The following chapter will discuss the project approach, the target population, and the project evaluation plan.

Section 3: Approach

Introduction

The purpose of this DNP project was to develop an educational toolkit to educate parents so that they can make an informed decision on vaccinating their adolescent sons (11 to 17 years of age) against HPV. Since the project is developmental, implementation will occur at a later time at the practicum facility's discretion. This scholarly project was designed to contribute to the current body of nursing knowledge about HPV. This section of the project addressed the development of the educational toolkit, the target population, as well as an evaluation plan for the scholarly project.

Project Approach

Walden University's Institutional Review Board (IRB) granted approval for this project (IRB Record Number 10-08-14-0340110). I developed an educational toolkit using evidence from the literature to educate parents on the importance of vaccinating their male sons against HPV. It was important to include various methods of learning in this toolkit in order to capture those parents who have poor reading skills or parents who have poor health literacy skills. Therefore, the educational toolkit consisted of two separate parts. The first part of the toolkit was an evidence-based fact sheet (Appendix A) that provides facts regarding HPV and the HPV vaccine. Additionally, the evidence-based fact sheet will direct parents to the facility's website to view the second part of the toolkit (Appendix B) prior to the next scheduled clinic appointment.

The evidence-based fact sheet consists of four sections: factual information, vaccine information, websites, and references. The first section (factual information)

includes findings outlined from current research and organizations such as the CDC. Barriers regarding HPV vaccinations are addressed in this section. The second section includes information regarding the vaccine, including a vaccination schedule for completing the three shot series. The third section includes website links for parents to view additional information. The websites with URL links and journal article links will allow parents to view multiple forms of information. The educational toolkit can be accessed using a computer, tablet, or smart phone. If there is no access to any technological device, then the evidence-based fact sheet is the alternative format for access. The fourth and final section includes the references. I reviewed information for a reading level of sixth grade or lower as determined by Microsoft Office's proofing measures.

The second part of the educational toolkit that will be posted on the facility's website contains similar information that was found on the evidence-based fact sheet. There is factual information provided for HPV and the HPV vaccine, including a vaccination schedule. Active URL links included in the toolkit will allow parents easier access to visit the recommended websites. Finally, all references are included. Often, educational handouts are discarded and not utilized to the maximum potential. The website version of the educational toolkit will provide the same level of education for those parents who are more comfortable using various technological devices.

Information gained from the scholarly literature and organizational websites (i.e., CDC) was the driving force behind evidence-based resources for the toolkit. Addressing the barriers to vaccination holds the greatest potential for increasing HPV vaccinations

among adolescent males (Walhart, 2012). I developed the implementation plan (Appendix C) to overcome identified barriers discovered in the review of literature. Additionally, there was an opportunity to dispel any myths or misconceptions regarding the vaccine when the parents talk with health care providers at their next scheduled visit.

Target Population

The target population for this scholarly project was parents of adolescent males, ages 11 to 17 years, who access a rural clinic. I did not collect any demographic data from parents during this project.

Project Evaluation Plan

Since this project is in development, the tentative evaluation plan (Appendix C) is included for clinic staff to use when examining if there has been an increase in HPV vaccination rates. Evaluation of this scholarly project should begin prior to implementation. After development of the toolkit (evidence-based fact sheet and website), two content experts knowledgeable about HPV vaccinations for males reviewed the toolkit for accuracy of the information about HPV, reading level (sixth-grade or below), and evidence-based resources. Additionally, three different parents of adolescent males reviewed the toolkit for ease of reading and overall impact of presented information. The members of the target population included a parent with a high school diploma and no college attendance, a parent with 2 years of college attendance, and a parent with 4 years of college attendance. The content experts and parent reviewers provided feedback, which I incorporated in the final version of the toolkit.

I did not use any instrumentation for data collection during development of this scholarly project, but I recommended that clinic staff collect data during implementation, using the HPV Survey Tool (Appendix D). When the final version of the educational toolkit is developed and the project is being implemented, I recommend that demographic data (patient age and race), HPV vaccination recommendations (provided by the health care provider), along with information about which part of the toolkit was used (evidence-based fact sheet or website) are noted in the chart as well as the HPV Survey Tool. Clinic staff might find this information useful when comparing if vaccination rates from the previous year increased.

Program evaluation provides direction for program improvements as well as for future research (Hodges & Videto, 2011). Program evaluation is a social service technique with a purpose of providing feedback (Kettner, Moroney, & Martin, 2013). For the purpose of a project designed to increase HPV vaccination rates among adolescent males, impact program evaluation was the most appropriate. Impact program evaluation is designed to analyze the cause-and-effect relationship of the identified problem. There is a distinct relationship between the hypothesis, the intervention, and the desired results (Kettner et al., 2013). The educational toolkit that was designed for parents of adolescent males is the intervention. Since the scholarly project was an educational toolkit designed to improve patient care and nursing practice rather than a formal research project, there was not an identified hypothesis. However, there was a project problem statement and a project question noted in Section 1. The desired outcome was an increase in the number of HPV vaccinations among adolescent males.

Once the project is complete, clinic staff will evaluate the toolkit annually for any updates of information. The clinic will identify someone who will be able to review the toolkit and provide these recommendations for change. Evaluation of long-term outcomes of the intervention will not be known for a minimum of 1 year within any given outpatient clinic, once the educational toolkit is implemented. A recommended evaluation plan will be provided to the clinic (Appendix C).

Summary

This scholarly project was designed with attention to the purpose, the project question, the educational toolkit, the target population, and the evaluation plan. It may take as long as 1 year before clinic staff can examine outcomes from the educational toolkit. Information from the toolkit should be reviewed annually for updates on the latest evidence on HPV vaccinations for males. The educational toolkit addressed a public health problem to improve preventative medicine for adolescent males while offering a guide for other outpatient clinics that may want to implement a comparable toolkit. The following section will discuss the project findings, implications for social change, and analysis of self.

Section 4: Findings, Discussion, and Implications

Introduction

Since the project was developmental, there was no data collection, and there are no statistical findings to report in this section. The purpose of this scholarly project was to develop an educational toolkit for parents of adolescent males regarding the value of the HPV vaccine. I developed the evidence-based fact sheet and the educational toolkit in response to the CDC's (2013) press release that urged health care providers to work with state and local health departments in order to improve the utilization of the HPV vaccine. I designed the educational toolkit to provide patients of adolescent males with information in order to make an informed decision regarding the acceptance or declination of the HPV vaccine.

Information presented in the evidence-based fact sheet was written on a sixth- grade reading level in order to direct parents to the electronic version of the educational toolkit located on the facility's website. The website version of the educational toolkit was designed to provide the same level of education for those parents who are more comfortable using various technological devices in order to provide current, evidence-based practice derived from a review of the literature. Hyperlinks have been added to the toolkit that will allow parents and patients to find information by a click of the mouse. The educational toolkit addresses each barrier identified in the current literature. Addressing barriers to the HPV vaccine holds the greatest potential for increasing HPV vaccination rates (Walhart, 2012).

Summary of Findings

Since HPV is one of the highest reported STIs in the United States and has severe long-term consequences associated with it, it is imperative that parents receive education regarding the vaccine. The HPV vaccine is known to prevent the four different types of the virus known to cause various cancers (CDC, n.d.). The vaccine has been thoroughly studied and has been found to be 89.3% effective if the entire series is completed (Campos-Outcalt, 2012). The ANA Code of Ethics clearly outlines the expectation of nurses when providing patient education. Nurses are expected to provide education to patients that will promote health and wellness in addition to any current conditions or illnesses (ANA, 2001).

I presented the evidence-based fact sheet and the educational toolkit to my practicum mentor and staff at the practicum facility. Two content experts reviewed the information present in each component of the scholarly project. The content experts included a DNP-prepared nurse practitioner and physician. Each content expert examined the component for accuracy, ease of understanding, and for its practicality of use at practicum facility. I revised the evidence-based fact sheet and the educational toolkit according to the feedback provide by each content expert. The evidence-based fact sheet is attached as Appendix A, and the educational toolkit is attached as Appendix B. The evidence-based fact sheet and the educational toolkit contained the following information:

Evidence-based fact sheet:

- HPV Facts
- Facility Website Address
- Consequences of HPV
- HPV Vaccine Facts
- HPV Vaccine Information
- References

Educational toolkit:

- Section 1: HPV and HPV Vaccine Facts
    - What is HPV?
    - Why is the HPV Vaccine Important for My Son?
    - What are the Short-term Consequences of an HPV Infection?
    - What are the Long-term Consequences of an HPV Infection?
    - When Should My Son be vaccinated against HPV?
- Section2: HPV Vaccine Information
    - How Many Injections are required for the HPV Vaccine?
    - Are There any Side Effects of the HPV Vaccine?
    - How Much Does the HPV Vaccine Cost and is it covered by My Insurance?
- Section 3: Helpful Websites
- Section 4: References
- Forms

I have provided the practicum mentor and the practicum facility with a version of the toolkit that provides ease of editing when new information and evidence-based practice becomes available. Additionally, a version of the educational toolkit will be provided that will prevent website visitors from making any changes. The practicum mentor will identify a registered nurse to monitor scholarly journals for new information and evidence-based practice. This nurse will be responsible for ensuring the educational toolkit is updated as new information becomes available (H. Jeffreys, personal communication, August 5, 2014).

Discussion of Findings in Context of Literature

After reviewing current literature through multiple databases—CINAHL, Medline, Proquest, and Ovid Nursing Journals—I identified a need to expand the current body of knowledge regarding HPV vaccination in adolescent males. In order to improve the vaccination rates among adolescent males, health care professionals must be willing to have discussions about HPV and the HPV vaccine with parents. The evidence-based fact sheet and the educational toolkit provide parents with the necessary information that will aid in making an informed decision. The educational toolkit is an excellent platform to disseminate information and current evidence-based practice to parents and patients. The toolkit allows parents to work through the information at their pace with or without their children and can be referenced multiple times (Lobban et al., 2011). Lastly, the toolkit provides an opportunity for active participation in the plan of care (Paterson, Sock, LeBlanc, & Brewer, 2010).

Krawczyk et al. (2013) examined males' knowledge regarding HPV and the HPV vaccine. There is a need to provide the same level of HPV and HPV vaccine education to males as there is for females in order to dispel any myths and misconceptions (Krawczyk et al., 2013). Numerous barriers have been identified regarding the acceptance of the HPV vaccine by males. Identified barriers were perceived susceptibility to HPV, lack of knowledge regarding HPV and the HPV vaccine, the vaccine not being recommended by a physician, vaccine availability, cost, and safety and efficacy. The vast majority of patient education for the HPV vaccine has focused on the prevention of cervical cancer, which does not address the importance for males (Nandwani, 2010).

The current literature supports the need to expand nursing knowledge regarding HPV and HPV vaccinations among males. It is essential that barriers, misconceptions, and myths be addressed when providing HPV education, which was evident during various practicum experiences where I made multiple observations with a variety of patient populations. The CDC has urged health care providers to work with state and local health departments to improve HPV vaccination rates. As a result, many states have labeled the HPV vaccine as a priority. However, there is not an educational toolkit that specifically addressed the adolescent male population (CDC, 2014a). This scholarly project addresses that specific need.

Implications for Practice

Addressing the public health issue of poor HPV vaccination rates among adolescent males will decrease the short-term and long-term consequences of HPV infection. The vaccine will protect each male as well as each sexual partner encountered

(CDC, 2014a). Since HPV is one of the most common STIs, it is one of the most expensive to treat (CDC, 2013b). In turn, it is expected there will be fewer burdens placed on the health care system by decreasing the number of genital wart outbreaks and preventing the various cancers known to be caused by HPV. The educational toolkit has reinforced the cost-effectiveness of the vaccine as compared to years of genital wart outbreak treatments and cancer treatments.

Professional nurses must be willing to set aside any biases in order to provide open and honest education to all patients. Regardless of gender, the expectation of nurses is to provide the same level of care to all patients (ANA, 2001). Additionally, Health People 2020 does not make mention of any gender bias in terms of preventing STIs (U.S. Department of Health and Human Services, 2010). If this public health issue is not addressed, the spread of HPV will continue to rise. There will be greater burdens placed on the health care system since the cost of health care continues to rise year after year (Bodenheimer & Grumbach, 2009). As a result, the cost of treating HPV and HPV-related illnesses will continue to rise as well. Interventions, such the evidence-based fact sheet and the educational toolkit, are an attempt to address this growing public health issue.

The review of literature yielded eight articles that met the inclusion criteria for this scholarly project. Articles for the specific literature review were excluded if they were conducted prior to 2009, if the study was completed outside the United States, if the article was published in a language other than English, and if the articles were not specific to the male gender. Additional nursing research is needed on this public health

issue. Additionally, this scholarly project promotes future research on educational toolkits and technology since smart phones and tablets are prominent in society.

Implications for Social Change

A press release issued by the CDC urging health care providers to work with state and local health departments prompted the development of the evidence-based fact sheet and the educational toolkit. The public health issue of poor HPV vaccination rates among adolescent males is not isolated to any particular geographic area, but rather nationwide (CDC, 2013a). Addressing parents of adolescent males as the target population for this scholarly project helps close a knowledge gap in this area of nursing research. The generation of new knowledge or the expansion on existing knowledge has a positive impact on the community, since evidence-based practice is designed to improve patient outcomes and patient safety.

The development of an educational toolkit is an attempt to address a serious public health issue. The toolkit increases HPV and HPV vaccine awareness for parents of adolescent males. Parents can be more active participants in their child's plan of care. In addition to general information, the toolkit directs parents and patient to helpful websites that offer support reassurance. An educational toolkit on a website can offer health care providers and nurses the opportunity to develop their practice by seeking out new information (through literature searches and seminars) to add to the toolkit.

Project Strengths, Limitations, and Recommendations

The strengths of the HPV evidence-based fact sheet and the educational toolkit are the ease of reading and understanding. Both components were written at a sixth-

grade level. An educational toolkit is an intervention that is designed to provide patients and families with the most current information and evidence-based resources in clinical practice (Hopkins, DeCristofaro, & Elliott, 2010). Each component was provided to the practicum facility in two different formats (one which is editable and one which is not editable). The editable format allows the health care provider to update the toolkit as new information becomes available. The noneditable version is ready to be sent to the informational technologist for upload to the facility's website.

One limitation of this project is the fact that this toolkit is specific to parents of adolescent males between the ages 11 to 17 years. Another limitation of this DNP project is that social media campaigns have promoted HPV vaccinations for females and not males. However, the development of this educational toolkit will be an attempt to address this problem. The toolkit holds great potential to address difficult topics of discussion, such as HPV and the HPV vaccine. The evidence-based fact sheet and the educational toolkit received positive responses from the practicum mentor and the practicum facility. Additionally, if the practicum facility chooses to broaden its scope of inclusion for the educational toolkit, it is easily modifiable and offers other male age groups the same information and level of care.

Analysis of Self as a Scholar

The journey of working toward a doctoral degree has been very exciting and some of the best years of my life. Although exhausting at times, the achievement is one that few nurses complete. A high school teacher told me that I would amount to nothing. Instead of using those words to foster hatred and discontent, I used them as motivation. I

was intimidated when I enrolled in Walden's DNP program. I did not feel I was smart enough to complete this degree. Two years later, I am working on my scholarly project. This program has allowed me to grow personally and professionally. I have been pushed to my personal limits at times, and I have been successful in each endeavor. Professionally, I have gain confidence and competence through the practicum experiences.

As a scholar, I have learned to rely on current research. I did not fully appreciate scholarly literature before enrolling in this program. Through weekly discussions, I have been able to network with peers across the United States. Professional networking provides research opportunities as well as presentation and speaking opportunities.

Through the trials of the scholarly project, I have identified a research interest, the educational toolkit. I would not have developed this interest to this level without the various practicum experiences, my practicum mentor's guidance, and a review of the literature. It is a humbling experience to be referred to as a scholar in the most honorable profession. The lettering I have earned in this program allows me the opportunity to grow through scholarship. Professional growth and scholarship are expectations of the DNP-prepared nurse, and I am ready to face those challenges.

Analysis of Self as a Practitioner

It is an honor to practice professional nursing. I have become increasing aware of this honor throughout the course of the DNP program. I am more confident and competent in my practice. Confidence and competence are skills that I gained through my practicum experiences, my clinical practice of nursing, and the scholarly literature.

The progression in this terminal degree program has earned the respect of many colleagues. I am becoming a scholarly peer to those who currently practice with a terminal degree, which I find to be a humbling experience. However humbling, there is a higher expectation of scholarship and responsibility to the profession of nursing. The development of an educational toolkit, which addresses difficult topics such as HPV and the HPV vaccine, is something I am very proud to accomplish. The educational toolkit for parents of adolescent males is a new concept that enhances nursing practice and offers opportunities for additional research.

Analysis of Self as a Project Developer

I have learned to search the professional literature throughout the development of an educational toolkit. I have become very comfortable searching various databases. As a project developer, the literature has become my greatest ally. Becoming familiar with databases and scholarly literature is a skill that is unique to scholars and project developers. Once I identified a gap in current literature, with the assistance of the practicum mentor, I was able to schedule my practicum experiences. The literature, the practicum experiences, and the previous course work guided the development of an educational toolkit.

The DNP scholarly project process is overwhelming and time-consuming. However, I have learned more than I ever thought was possible. I learned a great deal of patience during project development. My stress levels increased once I submitted the project for review since each committee member had 2 weeks to review the project and provide feedback. I learned to use the feedback as constructive criticism since each

response from the committee members was intended to improve my writing and to ensure I am producing a scholarly project. The experience of the DNP scholarly project will guide my future research and my future project developments.

Analysis of Self as a Professional

The development of the DNP scholarly project has increased my personal and professional growth and development. I have gained confidence and competence in this program that will guide my career for the rest of my life. I have learned to prioritize activities in order to meet goals and deadlines. I will use the skills I learned in this program to improve patient care, develop interventions to improve patient outcomes and patient safety, and to promote nursing scholarship. As a DNP-prepared nurse, I accept the professional responsibilities outlined in the DNP Essentials written by the American Association of Colleges of Nursing (AACN).

Summary

HPV is a public health issue that health professions must address. The numbers of individuals who are infected with HPV continue to grow each year. Scholarly literature lacks research and interventions directly related to vaccinating adolescent males against HPV. Currently, there are no educational toolkits designed for adolescent males. This gap in knowledge has prompted the development of an educational toolkit for parents of adolescent males in order to improve HPV vaccination rates. I designed an educational toolkit to be used in the practicum facility, and it can be modified for use in other facilities across the nation. The following section will discuss project dissemination, the project summary, and the program evaluation report.

Section 5: Scholarly Product

Introduction

Doctoral education reinforces the importance of scholarship. The DNP is no exception. The AACN has established eight essentials for the DNP-prepared nurse that outlines the expectations of the practice scholar. The DNP Essential III outlines clinical scholarship and its integration into professional practice (AACN, 2006). The final scholarly product was an educational toolkit for parents of adolescent males. I developed the toolkit in response to a press release issued by the CDC, which indicated the HPV vaccine is grossly underutilized (CDC, 2013). Additionally, my practicum experiences reinforced the need to vaccinate adolescent males against HPV. Since adolescents are unable to provide legal consent for the vaccine, the toolkit targets parents of adolescent males. In addition to DNP Essential III, this scholarly project addressed DNP Essential VI, which requires interprofessional collaboration in order to improve patient a d population health outcomes. The toolkit presents current evidence-based practice and necessary information that will allow for an informed decision regarding the HPV vaccine.

Dissemination of evidence-based practice is essential to the practice of professional nursing. All current policies, guidelines, and protocols are driven by evidence-based practice (AACN, 2006). Dissemination of research and scholarly projects can take many different forms. The most common forms include, but are not limited to, manuscript publication, poster presentations, professional conference presentations, and dissemination through independent nurse consultants. A research

project or DNP scholarly project is not considered complete unless the results are shared with other professionals (Oermann & Hays, 2011). Lastly, the sharing of knowledge provides an opportunity for additional research, which can generate new knowledge or expand on existing knowledge (Doran et al., 2010).

Project Dissemination

Publication is one of the most common forms of information dissemination. The first choice of publication for an educational toolkit that addresses the public health issue of HPV, and the HPV vaccine is the *Journal of Public Health*. Publishing in this journal has the greatest potential of reaching far more public health professionals as compared to other methods of dissemination. This population of health care professionals can, in turn, further disseminate the information to the target population. I would like to collect and analyze data, using the developed survey tool (Appendix D) before submitting a manuscript for publication. I believe data collection and analysis will have a greater impact on health care professionals. This information will provide evidence that the intervention, which is the educational toolkit, can improve HPV vaccination rates.

A poster presentation is another acceptable method to disseminate information. This method of dissemination is the method of choice for the completion of this DNP scholarly project (Appendix E). This poster presentation provides an opportunity to exhibit the role of a nurse champion in the field of HPV prevention and the care of the adolescent male (Ploeg et al., 2010). When the poster is presented to other scholars, health care professionals, and the public, there is direct access to the research and the researcher. Direct access encourages personal and professional development as

compared to electronic methods of dissemination (Ousley, Swarz, Milliken, & Ellis, 2010). Additionally, the researcher has an opportunity to network with other scholars and content experts, which allows for additional research and scholarship. Networking with other scholars can generate research interests that can affect patient care and professional practice on a national and international level (Forsyth, Wright, Scherb, & Gaspar, 2010).

Project Summary

In summary, the development of a DNP project that resulted in an educational toolkit for parents of adolescent males that addressed HPV vaccinations was very rewarding. I identified a knowledge gap in the current scholarly literature. This scholarly project was an attempt to close that gap in nursing knowledge. The review of literature was intense and often overwhelming. However, this project would not have come to fruition without reviewing the scholarly literature. The educational toolkit is a resource for parents of adolescent males that is designed to provide enough information to make an informed decision regarding the HPV vaccine. Ajzen and Fishbein's (1980) theory of reasoned action guided this DNP project. This theory states that people make decisions based on the information that is either available or provided (McEwen & Wills, 2011). Applications of this theory were found to be ideal for parents of adolescent males, who are at high risk for STIs (Roberto, Krieger, Katz, Goei, & Jain, 2011). My mentor was very helpful in determining the information that should be included in the final scholarly product.

The educational toolkit addresses a growing problem in the United States, which is increasing numbers of individuals who are diagnosed with an STI each year. This project supports the Health People 2020 initiatives, which focused on STI prevention (U.S. Department of Health & Human Services, 2010). The educational toolkit was designed to educate parents on the benefits of vaccinating their adolescent sons against HPV. This project allows parents to review the information in the privacy of their home without feeling any external pressures within the clinic. Parents have the choice of how much information that should be disclosed to their children. Finally, the parent who primarily escorts the child to the clinic appointment has an opportunity to review the educational toolkit with the other parent who was not or cannot be present at the clinic appointment.

Program Evaluation Report

It is essential that program evaluation begin before the project implementation. The program evaluation should be used to guide the project from inception through implementation and evaluation. The evaluation plan outlines the overall goal of the project and serves as an outline of what the intended project should accomplish. This DNP project was developmental and was not implemented. However, an implementation and evaluation plan was developed that can be used by any primary health care clinic across the United States (Appendix C). Since the final product was an electronic and hard copy provided to the practicum facility, the implementation and evaluation plan has numerous steps that include a continuous review of the scholarly literature to data analysis.

I reviewed and assessed numerous resources to determine the information that should be included in the educational toolkit. My project mentor, an additional content expert with a practice in primary health care, and three members from the target population reviewed the toolkit. I reviewed and presented all comments to my project mentor and made multiple revisions to the educational toolkit. The information presented in the educational toolkit is current and up-to-date. However, continuous literature surveillance will be required. The evaluation process will not end as long as this toolkit is in practice.

Conclusion

In conclusion, I designed the HPV educational toolkit to provide parents of adolescent males with the most current evidence-based practice in order to make an informed decision regarding the HPV vaccine. This project addressed a sensitive subject regarding STIs and is an attempt to close the knowledge gap regarding the HPV vaccine and adolescent males. This scholarly project is a perfect example of the expectations of the DNP-prepared nurse, which is to identify a practice problem and develop a solution or solutions to improve practice or patient safety (Zaccagnini & White, 2011). I included a poster presentation (Appendix E) for this project. In the future, I will submit a manuscript to the *Journal of Public Health* for publication.

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Vaccine Information

- The HPV vaccine is administered through a series of three injections over six months (3).

- Common side effects (10):
  - The risk of a life-threatening reaction to this vaccine is rare. Should this occur, it will be within the first few minutes after the injection. **The vaccine should not be administered if there is a known allergy to yeast.**
  - Pain at injection site
  - Redness or swelling at injection site
  - Mild fever
  - Headache
  - Nausea and vomiting
  - Fainting related to the vaccination procedure

- Ask your health care provider to determine the cost of the vaccine and to find out if the vaccine is covered by insurance.

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Should my son be vaccinated against the human papillomavirus (HPV)?

A Fact Sheet for Parents

[Facility Name]
[Provider Name]
[Facility Address]
[City, State & Zip Code]
[Facility Phone Number]
[Facility Fax Number]
[Facility Email Address]

Developed by:
Lance Hadley, DNP(c), MSN, RN
Walden University
DNP Student

HPV FACTS

- HPV is the highest reported sexually transmitted infection in the United States (6).
- Researchers have identified over 100 different types of HPV and 30 of those are known to be transmitted sexually.
  - It is possible to be infected with more than one type of HPV at the same time (9).
- There is no cure for HPV.
  - Once infected with HPV, the goal of treatment is to control the number of visible lesions (9).
- Many adolescents will be exposed to HPV within the first year of becoming sexually active (4)
- HPV can be prevented.
  - HPV infections can occur on other areas that are not protected by condoms (8)

For additional information on HPV, please visit our website to view the educational toolkit: http://www.familycarepanhandle.com

CONSEQUENCES OF HPV

Short-term Consequences:

- Genital wart outbreaks (5)

Long-term Consequences:

- Development of various cancers (2):
  - Oral cancer
  - Pharyngeal cancer
  - Anal cancer
  - Penile cancer

HPV VACCINE FACTS

- The HPV vaccine is administered through a series of three injections over six months (3).
- Common side effects (10):
  - The risk of a life-threatening reaction to this vaccine is rare. Should this occur, it will be within the first few minutes after the injection. **The vaccine should not be administered if there is a known allergy to yeast.**
  - Pain at injection site
  - Redness or swelling at injection site
  - Mild fever
  - Headache
  - Nausea and vomiting
  - Fainting related to the vaccination procedure
- Ask your health care provider to determine the cost of the vaccine and to find out if the vaccine is covered by insurance.

Appendix B: Educational Toolkit

Should my son be vaccinated against the human papillomavirus (HPV)?

A Toolkit for Parents

[Facility Name]

[Provider Name]

Developed by: Lance Hadley, DNP (c), MSN, RN

Table of Contents

Introduction

Thank you for viewing the HPV toolkit for parents. The purpose of this toolkit is to provide parents, of adolescent males, with the most current and up-to-date medical information regarding HPV and the HPV vaccine. This information is intended to help parents make an informed decision regarding the HPV vaccine.

To schedule an appointment:

[Facility Name]

[Facility Address]

[City, State & Zip Code]

[Facility Phone Number]

Toolkit Mission

To provide educational support to parents of adolescent males in order to improve HPV vaccination rates.

Toolkit Goal

To improve HPV vaccination rates among adolescent males.

Toolkit Outcome Objective:

To create an educational toolkit to outline the benefits of the HPV vaccine for adolescent males.

Section 1:
HPV and HPV Vaccine Facts

What is HPV?

- HPV is a virus that is transmitted through any type of close contact or sexual contact (4).
- HPV is one of the highest reported sexually transmitted infections in the United States (6).
- There is no cure for HPV (9).
- Researchers have identified over 100 different types of HPV and 30 of those are known to be transmitted sexually (9).
    - It is possible to be infected with more than one type of HPV at the same time (9).
- Many adolescents will be exposed to HPV within the first year of becoming sexually active (4).
- HPV can be prevented by abstaining from sex and accepting the HPV vaccine (8).

- HPV infections can occur on other areas that are not protected by condoms, such as the pubic area, the rectal area, and the mouth (8).

Why is the HPV Vaccine Important for My Son?

- Males are not exempt from contracting HPV and developing HPV-related cancers (7).
- Adolescents are the largest population who are infected with sexually transmitted infections (8).
- The HPV vaccine is as effective in males as it is in females (1).
- The HPV vaccine is 89.3% effective if the entire vaccination series is completed (1).
- The HPV vaccine is designed to protect against four different types of HPV that are known to cause cancer (2).

What are the Short-term Consequences of an HPV Infection?

- The short-term consequence of an HPV infection is genital wart outbreaks (5).
- Once infected with HPV, the goal of treatment is to control the number of visible lesions or warts (9).

- It is important to note that all patients infected with HPV will develop genital warts. Some patients will present with skin that has a plaque-like appearance. The skin may also appear red or even darker than normal. There may be areas that are painful, bleeding, or itchy (8).

What are the Long-term Consequences of an HPV Infection?

- The long-term consequences of an HPV infection are the development of various types of cancer (2).
- The different types of cancer include, but are not limited to oral (mouth) cancer, pharyngeal (throat) cancer, anal cancer, and penile cancer (2).
- Once infected with HPV, the virus may lay dormant for a period of months to years (8).
- Some patients may remain asymptomatic of HPV until a malignancy (cancer) develops (9).

When Should My Son be vaccinated against HPV?

- The vaccine is recommended to be administered to males between the ages of 11 and 26 years (2).

- The Advisory Committee on Immunization Practices within the Centers for Disease Control and Prevention (CDC) recommends vaccinations to occur between 11 and 12 years of age, since most males are not sexually active at this age (6).
- The vaccine can be administered to males as young as 9 years (6).
- It is recommended that the vaccination series be completed before the initiation of sexual activity (7).
- The HPV vaccine can be administered with other vaccines (during the same clinic appointment). This will require separate injections (6).

Section 2:
HPV Vaccine Information

How Many Injections are required for the HPV Vaccine?

- The HPV vaccine is administered through a series of injections (3).
- The vaccination series consists of three injections (3).
- The second injection should be administered 4 to 8 weeks after the first injection (3).
- The third injection should be administered 16 weeks after the second injection (3).
- If a dose is missed, it should be administered as soon as possible. The series will not need to be restarted if there is an interruption in the vaccination schedule (6).

Are There Any Side Effects of the HPV Vaccine?

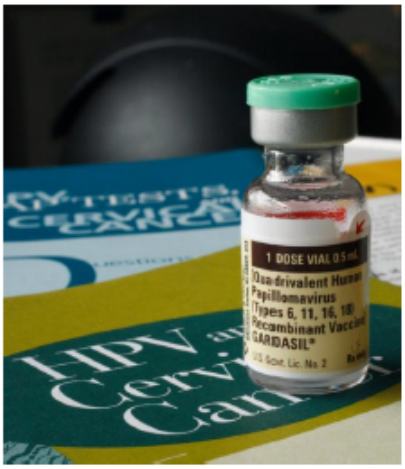
- The risk of a life-threatening reaction to the vaccine is rare. Should this type of reaction occur, it will be within the first few minutes after the vaccine is administered. **If your son is allergic to yeast, he should not receive this vaccine** (6).

- The most common reported side effects of the HPV vaccine (6):
  - Pain at injection site
  - Redness or swelling at injection site
  - Mild fever
  - Headache
  - Nausea and vomiting
  - Fainting related to the vaccination procedure

- Press Ctrl+Click HERE to access the Gardasil vaccine information statement provided by the CDC.

14

How Much Does the HPV Vaccine Cost and is it Covered by My Insurance?



- Ask your health care provider about the cost of the HPV vaccine.
- Health insurance plans vary. Your health care provider will help you determine if the HPV vaccine is covered by your insurance provider.
- If the cost of the HPV vaccine is preventing you from accepting the vaccine for your son, please talk your health care provider to determine if you qualify for a vaccine assistance program, such as Texas Vaccines for Children.
    - Press Ctrl+Click HERE to learn more about the Texas Vaccines for Children program.

Section 3:
Helpful Websites

Helpful Websites

HPV Information:

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - The CDC is the foremost authority on diseases, the spread of diseases, and the available vaccinations. This website is designed to provide any desired information when searching for HPV and the HPV vaccine.
    - Multiple website pages can be viewed from this link.

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - This website page will provide you with specific information regarding the HPV virus.

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - This website page will provide information about the Advisory Committee on Immunization Practices (ACIP) and the committee's recommendation for male vaccination.

Sexually Transmitted Infection Information:

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - This website page will provide you with additional information about sexually transmitted infections, including HPV.

HPV Vaccination Information:

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - This website page will provide you with additional information about the HPV vaccination.

- Gardasil
  - Press Ctrl+Click HERE to visit the website.
    - This website has been established by Merck, the manufacturer of the HPV vaccine. On this website, you will find information about HPV, who is at risk for the HPV infection, HPV-related cancers, and genital warts. In addition, information is provided about the Gardasil vaccine, who should be vaccinated against HPV, side effects of HPV, and frequently asked questions about the HPV vaccine. Lastly, the website provides information regarding health plan coverage and assistance programs.

Cancer Information:

- Centers for Disease Control and Prevention (CDC)
  - Press Ctrl+Click HERE to visit the website.
    - This website page will provide you with information about the various cancers that are caused by HPV.

Contact Information:

- Centers for Disease Control and Prevention (CDC)
  1-800-CDC-INFO (1-800-232-4636)
  TTY: (888) 232-6348
  Contact CDC-INFO (http://www.cdc.gov/cdc-info/requestform.html)

- CDC National Prevention Information Network (NPIN)
  P.O. Box 6003
  Rockville, MD 20849-6003
  http://www.cdcnpin.org/scripts/index.asp

- National HPV and Cervical Cancer Prevention Resource Center American Sexual Health Association (ASHA)
  P.O. Box 13827
  Research Triangle Park, NC 27709-3827
  1-800-783-9877
  http://www.ashastd.org/std-sti/hpv.html

Section 4:
References

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Forms

Forms

- The Centers for Disease Control and Prevention (CDC) Vaccine Schedule
  - Press Ctrl+Click HERE to access the vaccination schedule.
    - This form will outline the vaccination schedule for your child, including the HPV vaccine.

- The Centers for Disease Control and Prevention (CDC) Vaccine Screening Tool
  - Press Ctrl+Click HERE to access the vaccine screening tool.
    - This form will determine if your child is eligible to receive the HPV vaccine during your schedule appointment.

- The Centers for Disease Control and Prevention (CDC) Vaccine Scheduler
  - Press Ctrl+Click HERE to download the vaccine scheduler.
    - This link provides access to the CDCs vaccine scheduler. You can download this scheduler on your home computer and keep track of your child's vaccinations.

HPV Vaccine Consent Form

If you would like for your child to be given the HPV vaccine, please complete the following statement.

I, _____ give consent for my daughter/son _____

(Please print name) (Please print name)

to receive the Gardasil Vaccine to protect against the human papillomavirus (HPV).

_____ _____

Signature of Parent/Guardian Date

If you **DO NOT** wish for your child to be given the HPV vaccine, please complete the following statement.

I, _____ **DO NOT** give consent for my daughter/son _____

(Please print name) (Please print name)

to receive the Gardasil Vaccine to protect against the human papillomavirus (HPV) at this time. I further understand that in the future, if I change my mind and wish that my child receive the vaccine, I will inform the provider of my request so that the consent status is updated.

_____ _____

Signature of Parent/Guardian Date

Appendix C: HPV Educational Toolkit Implementation and Evaluation Plan

IMPLEMENTATION

Goals and Strategies

Problem Statement: There is a lack of understanding among parents of adolescent males regarding the importance of being vaccinated against HPV.
Purpose Statement: The purpose of this educational toolkit is to provide information to parents of adolescent males regarding the value of the HPV vaccine.
Project Objective: Implementation of an educational toolkit that will provide resources for parents on the importance of protecting their male children, 11 to 17 years of age, against HPV.
Project Question: What evidence-based resources are needed to develop an educational toolkit designed to educate parents of adolescent males, ages 11 to 17 years, about the benefits of HPV vaccinations?

Implementation Strategy Description

1. Prior to implementation, all staff must be educated on the use of the HPV educational toolkit (evidence-based fact sheet and website toolkit). Education sessions will occur at three different times. The first education session will include the health care providers (physicians, nurse practitioners, and physician assistants). The second education session will include the direct patient care staff (registered nurses, licensed vocational nurses, and unlicensed assistive personnel). The third education session will include all administrative and reception staff. Each education session will include a thorough walk-through of the educational toolkit and the evidence-based fact sheet. Expectations (listed below) will be reviewed by the clinic owner.

   Educational toolkit expectations:

   - Implementation of the educational toolkit will occur for a minimum of one calendar year.
   - All clinic staff is expected to participate in this project.
   - All parents of adolescent males will receive the evidence-based fact sheet during clinic appointments with their children, unless the clinic visit is determined to be emergent by the health care provider.
   - All parents of adolescent males will be directed to the facility's website to view the educational toolkit, unless the clinic visit is determined to be emergent by the health care provider.

2. Parents of adolescent males will be identified through the reception desk at the primary health care clinic. Identification can occur when clinics appointments are scheduled or when the parents arrive at the clinic with their children. The target

population will most often schedule appointments for their adolescent male children for annual school physicals and acute illnesses. Emergent visits to the health care clinic will be excluded.

3. Once a parent of an adolescent male is identified, the medical record will be flagged with a blue dot to ensure that all parties involved are aware that the parents of the patient meet the inclusion criteria for the target population (parents of adolescent males, ages 11 to 17 years). The adolescent male patient will also be coded with a number that will not in any way allow the nurse researcher to identify the patient. This numbering system will remain in the health care clinic at all times under the supervision of the project manager.

4. The health care provider will introduce parents to the HPV vaccine, and an evidence-based face sheet will be presented at this time.

5. At the conclusion of the clinic appointment, the nurse will follow-up with the parent(s). Follow-up will include the following information (HPV Survey):

    - Did the health care provider talk to you about the HPV virus and the HPV vaccine?
    - Did you receive the evidence-based fact sheet?
    - Would you like your child to receive the HPV vaccine today (if approved by the health care provider)?
        - If yes, what method of education persuaded you to provide consent for the vaccine?
            - Health care provider
            - Evidence-based fact sheet
            - Educational Toolkit
        - If yes, is this the first vaccine of the series?
        - If yes, is this the second vaccine of the series?
        - If yes, is this the third vaccine of the series?
        - If not, why?
            - Was the parent directed to the facility's website to view the educational toolkit?

6. Once the HPV survey follow-up is completed, the form will be given to the designated project manager.

7. If the parent(s) provided consent and the HPV vaccine series was initiated, follow-up appointments will be scheduled in order to ensure the entire vaccine series is completed.

    - If follow-up appointments are not scheduled, the patient's name and parent(s) names (along with contact information) will be placed in a tickler file for the reception staff. The reception staff will make follow-up phone calls four weeks (one month) before the next vaccine in the series is due.

Project Team Members

The health care clinic owner/administrator will identify a project manager that will coordinate all project activities. Project activities will include:

- Educational toolkit education for all new clinic staff.
- Collection of HPV survey tools.
- Delivery of survey tools to the nurse researcher.
- To ensure all clinic staff, and health care providers are participating in the project.
- Discussion of project updates in all staff meetings and health care provider governing body meetings.
- Serving as a liaison between the health care providers, clinic staff, and the nurse researcher.

Additionally, the health care clinic owner/administrator will identify a toolkit manager that will ensure all information presented in the toolkit and the evidence-based fact sheet is current. The toolkit manager will report directly to the project manager.

Barriers to Successful Implementation

- "Buy-in" from health care providers.
- "Buy-in" from clinic staff.
- Lack of consistency between health care team members.

Methods to Minimize Barriers

- Expectations of clinic participation in this project presented to health care providers and clinic staff by clinic owner/administrator.
- All health care providers and clinic staff will be trained on the HPV educational toolkit project implementation plan to ensure consistency.

Estimated Time and Expenses

The project will not cause an increase in personnel hours worked.
The only foreseen expenses for project implementation are the cost of the evidence-based fact sheet printing and the cost of information technology support to add the educational toolkit to the facility's website. Printing of the fact sheet can be completed for 10 to 15 cents per copy, depending on the desired quantity. The average cost for informational technology support is $75 to $100 per hour.

RECOMMENDED METHODS AND PROCEDURES

Research Design

The recommended design is a comparative, descriptive design, as the plan is to test for differences between the HPV educational methods of health care provider recommendation, the evidence-based fact sheet, and the website educational toolkit.

Population and Sample

The sample will be obtained through convenience sampling. The target population is parents of adolescent males, ages 11 to 17 years, who access a rural clinic. The sample size will be determined by the number of adolescent males who access the rural clinic. Confidentiality of the participants will be strictly maintained throughout the course of the project. Identifying information will not be collected during the course of this project.

Instrumentation

The HPV survey tool will be the instrument of choice to collect data from the research study. This tool was created by a nurse researcher and does not have an established reliability or validity.

Procedure

Participants for the study will be chosen by convenience sampling. Participants will be chosen by the adolescent males, ages 11 to 17 years, who access a rural clinic. The HPV survey tool will collect data. Contact with participants will occur by clinic staff only (health care providers, nurses, and administrative staff). Informed consent will be required if the parent wishes to have his/her son vaccinated against HPV.

Setting

The project will be conducted in a rural outpatient primary care clinic over a period of one calendar year.

Ethical Considerations

The research proposal was submitted to Walden University's Institutional Review Board (IRB) for approval. A facility-specific consent form, along with a declination form, has been provided in the website educational toolkit. Patient consent for participation in the study will not be required since the purpose of the project is to provide information to parents of adolescent males regarding the value of the HPV vaccine. The guidelines set forth by the Health Insurance Portability and Accountability Act (HIPAA) will be strictly adhered to as no identifying information will be collected on the HPV survey tool. No risks have been identified with this project, and all results will be kept under lock and key under the supervision of the project manager. The clinic owner/administrator, project manager, and the nurse researcher will be the only people with access to the raw data.

Limitations

Several limitations have been identified with this developmental scholarly project. One limitation of this project is the fact that this toolkit is specific to parents of adolescent males between the ages 11 to 17 years. Another limitation of this DNP project is that social media campaigns have promoted HPV vaccinations for females and not males. Other limitations that must be considered include those that pertain to parents having the ability to read, read in English, and have little visual impairment. The website version of the toolkit is only available to those parents with internet access by computer, tablet, or smart phone. The evidence-based fact sheet and the educational toolkit is written in English. Parents must be able to read English. Parents must have no visual impairments that will prevent reading.

Resolution of limitations provides an opportunity to advance additional scholarship through creativity and inquiry (Zaccagnini & White, 2011). The development of this educational toolkit will be an attempt to address the public health issue of a lack of HPV vaccine promotion for adolescent males. Although common, if parents do not have access to a computer, tablet or smart phone, then they can access the internet through the public library or a friend's device. If the public library or friend is not an option, then the parent talk with a staff member at the clinic and arrangements can be made to view the toolkit. Screen readers are available for the severely visually impaired that will allow for a reading of information presented on a computer screen. This technology can also be used for those who cannot read. The evidence-based fact sheet and the educational toolkit are written in English. Both tools can be translated in other languages in order to meet the needs of the community.

RECOMMENDED EVALUATION PLAN

The purpose of the project evaluation is to determine if the HPV educational toolkit increased the HPV vaccination rates among adolescent males, ages 11 to 17 years. The impact program evaluation is the chosen method of evaluation. This type of program evaluation is designed to analyze the cause-and-effect relationship of the identified problem (low HPV vaccination rates among adolescent males, ages 11 to 17 years). In addition to data collection, the HPV survey tool (Appendix D) will serve as a formative evaluation that will provide the clinic owner/administrator, project manager, and nurse researcher with the necessary information needed to answer the project question scientifically. Data analysis will provide a summative evaluation, based on statistical information.

Data Analysis

Collected data will be analyzed using the independent *t* test. This statistic will allow the nurse researcher to make a scientific comparison between methods of patient education (health care provider recommendations, evidence-based fact sheet, and website educational toolkit). The level of acceptable significance will be $p<.05$. Collected data will be managed by the Statistical Package for the Social Sciences © (SPSS) software.

Appendix D: HPV Survey Tool

Patient ID Code: _____ Age: _____ Race: _____

Please circle the most appropriate answer.
Person escorting child to clinic appointment: Mother Father

1. Did the health care provider talk to you about HPV and the HPV vaccine? Yes No

2. Did you receive the evidence-based fact sheet? Yes No

3. Would you like your child to receive the HPV vaccine today (if approved by the health care provider)? Yes No

   If yes, what method of education persuaded you to provide consent for the HPV vaccine?

   - Health care provider recommendation
   - Evidence-based fact sheet
   - Website educational toolkit

   If yes, what number of vaccine will be administered today?

   - 1st injection
   - 2nd injection
   - 3rd injection

   If No, please provide reason:

   _____

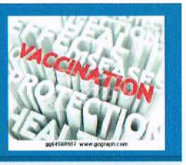
   If No, was the parent directed to the facility's website to view the educational toolkit?

   Yes No

Increasing HPV Vaccination Rates among Adolescent Males:

A Toolkit for Parents

Lance Hadley, DNP(c), MSN, RN



Background

Introduction to HPV

•HPV is a virus that is transmitted through any type of close contact or sexual contact (Daley, 2011).
•HPV is one of the highest reported sexually transmitted infections ("Human Papillomavirus," n.d.)
•There is no cure for HPV (McCutcheon, 2009).
•Males are not exempt from contracting HPV and developing HPV-related cancers (Johnston, 2011).
- Oral, pharyngeal, anal, and penile cancers

•Adolescents are the largest population who are infected with sexually transmitted infections (Jordan, 2008).

Introduction to HPV Vaccine

•HPV vaccine is as effective in males as it is in females.
- The HPV vaccine is 89.3% effective if the entire vaccine series is completed (Campos-Outcalt, 2012)

•The quadrivalent HPV vaccine protects against four different types of HPV that are known to cause cancer (CDC, 2011).
- Types 6-, 11-, 16-, and 18-

•The HPV vaccine should be administered before initiation of sexual activity (Johnston, 2011).

Project Significance

•Prevention of short-term consequences for patients.
- Genital wart outbreaks.

•Prevention of long-term consequences for patients.
- Oral, pharyngeal, anal, and penile cancers ("Recommendations for Vaccination," 2011).

•Prevention of health care system consequences.
- The costs of treating sexually transmitted infections is approximately 16 billion dollars annually ("STI Cost Fact Sheet," 2013).
- Treating genital warts and various cancers is costly, much more than the cost of the vaccine itself.

Problem and Purpose Statement

Problem Statement

There is a lack of understanding among parents of adolescent males regarding the importance of being vaccinated against HPV.

Purpose Statement

The purpose of this scholarly project is to develop an educational toolkit for parents of adolescent males regarding the value of the HPV vaccine.

Project Question and Objectives

Project Question

What evidence-based resources are needed to develop an educational toolkit designed to educate parents of adolescent males, ages 11 to 17 years, about the benefits of HPV vaccinations?

Project Objectives

•Contribute to the current body of knowledge that outlines the importance of vaccinating males against HPV.
•Development of an educational toolkit that will provide resources for parents on the importance of protecting their male children, 11 to 17 years of age, against HPV.

Project Approach

Review of Literature

•Articles published between 2009 and 2013
•Articles were excluded if published prior to 2009, if the study was completed outside the U.S., if the article was published in a language other than English, and if the articles were not specific to the male gender.
•Eight articles met inclusion criteria.
•Common themes identified
- Males' knowledge of HPV and HPV vaccine greatly lacking.
- Parents attitudes and beliefs toward the HPV vaccine affect acceptance.

Target Population

•The target population for this scholarly project is parents of adolescent males, ages 11 to 17 years, who access a rural clinic.

Project

•Approval granted by Walden University Institutional Review Board (IRB).
•Educational Toolkit
- Evidence-based fact sheet (factual information, vaccine information, helpful websites, references)
  - Distributed during clinic appointments and will direct parents to the facility's website.
- Website toolkit (factual information, vaccine information, helpful websites, references)
  - More information compared to evidence-based fact sheet
  - Active URL links to helpful websites
  - Patient forms that can be printed (if desired)

Project Evaluation Plan

•Evidence-based fact sheet and educational toolkit evaluated by two content experts, who are knowledgeable about HPV vaccinations for males, for accuracy.
•Recommended data collection and chart documentation
- Demographic data
- HPV vaccination recommendations
- Information about which part of the toolkit (evidence-based fact sheet or website) influenced vaccination.

Results

•Cost of HPV vaccine is much cheaper than the treatment of genital wart outbreaks and the treatment of various cancers.
•Vaccine is 89.3% effective if vaccination series is completed (Campos-Outcalt, 2012).
•The review of literature supports the need for additional research.
•The project follows the American Nurses' Association's Code of Ethics that outlines the nurse's duty to provide patient education and to protect patients against threats to health and safety ("Code of Ethics," n.d.).

Implications for Practice

•CDC has labeled the HPV vaccine as a priority vaccine (CDC, 2013).
•HPV vaccination will help prevent short-term and long-term consequences of an HPV infection.
- Prevention will lessen the financial burden on the health care system.

•The HPV vaccine will protect males and their sexual partners ("Wiping out HPV," 2013).
•Supports Healthy People 2020 initiatives
- Sexually Transmitted Infection Prevention (U.S. Department of Health & Human Services, 2010).

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Recommendations on the use of quadrivalent human papillomavirus vaccine in males - Advisory committee on immunization practices (ACIP), 2011. (2011). Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6050a3.htm

Wiping out HPV: Boys must be vaccinated. (2013). Retrieved from sogc.org/newsletter/may-2013/wiping-out-hpv-boys-must-be-vaccinated/

Curriculum Vitae

Lance Hadley, MSN
Instructor of Nursing

Academic Background
MSN West Texas A&M, Canyon, TX, Nursing Administration, 2009
BSN West Texas A&M, Canyon, TX, Nursing, 1996
A.A. Clarendon College, Clarendon, TX, General Studies, 1994

Certifications
Registered Nurse License, 1996-Present

Memberships
American Nurses Association, 2014
Texas Nurses Association, 2014
American Nephrology Nurses Association, 2009-2013
Sigma Theta Tau - Delta Delta Chapter, 1996-Present

WORK EXPERIENCE
Academic Experience
Nursing Instructor, West Texas A&M University (January, 2013 - Present).

Regional Home Therapy Manager/Operations Manager, Fresenius Medical Care (August, 2010 - December, 2012).

Charge Nurse, Renal CarePartners of Amarillo (September, 2008 - August, 2010).

Courses Taught
NURS 2350 Introduction to Nursing Skills
NURS 3310 Pathophysiology
NURS 3360 Research in Nursing
NURS 3580 Adult Health I
NURS 4693 Clinical Internship for Professional Nursing Practice

INTELLECTUAL CONTRIBUTIONS:
Refereed Articles
Reyes, H., Hadley, L., & Davenport, D. (2013). A Comparative Analysis of Cultural Competence in Beginning and Graduating Nursing Students. *ISRN Nursing, 2013*, 5.

SERVICE:
Service to the University

Department Assignments

Chair:

2013-2014: Nursing Faculty Development Committee

Member:

2013-2014: Nursing Competency Committee
2013-2014: Nursing Curriculum Committee
2013-2014: Nursing Faculty Organization Committee

Service to the Profession

Board Member: Advisory Board

2013: American Nephrology Nurses Association, Hub City Chapter, Lubbock, Texas. Served as legislative Chair for the 2010-2012 term.
2013: Sigma Theta Tau, International, Delta Delta Chapter, Canyon, Texas. Served as Governance Chair for 2011-2013 term. Responsible to ensure the chapter followed the adopted Sigma Theta Tau International Bylaws.

Faculty Development

Other Professional Development

2014: Hazard Communication - Train Traq, Canyon, Texas.
2014: Hazard Communication and laboratory Safety for West Texas A&M University, Canyon, Texas.
2014: HIPAA Privacy and Security for Nurses and Clinical Staff, Canyon, Texas.
2014: Bloodborne Pathogens Online Training - System Version - Train Traq, Canyon, Texas.
2014: Evidence Based Practice I - 5 Credit Hours, Minneapolis, Minnesota. Walden University - DNP Course Work.
2014: Soft Chalk Video Tutorials, Canyon, Texas.
2013: College of Nursing & Health Science Awards & Recognition Coffee, Canyon, Texas.
2013: WTAMU Spring Faculty Address, Canyon, Texas.
2013: WTAMU Faculty/Staff Convocation, Canyon, Texas.
2013: WTAMU Department of Nursing Pinning Ceremony, Canyon, Texas.
2013: CNHS Spring Meeting, Canyon, Texas.
2013: CNHS Fall Meeting, Canyon, Texas.
2013: FERPA - Train Traq, Canyon, Texas.
2013: Clery Act Guidelines for A&M System Campus Security Authorities - Train Traq, Canyon, Texas.
2013: Ethics - Train Traq, Canyon, Texas.
2013: Information Security Awareness - Train Traq, Canyon, Texas.
2013: Creating a Discrimination-Free Workplace - Train Traq, Canyon, Texas.
2013: Financial Conflicts of Interest in Research - Train Traq, Canyon, Texas.
2013: Organizational & Systems Leadership - 5 Credit Hours, Minneapolis, Minnesota. Walden University - DNP Course Work.

2013: Epidemiology & Population Health - 5 Credit Hours, Minneapolis, Minnesota. Walden University - DNP Course Work.
2013: Best Practices in Nursing Specialties - 5 Credit Hours, Minneapolis, Minnesota. Walden University - DNP Course Work.
2013: Transforming Nursing and Healthcare through Technology - 5 Credit Hours, Minneapolis, Minnesota. Walden University - DNP Course Work.
2013: Spring and Fall Faculty Retreat - Department of Nursing, Canyon, Texas.
2013: Lecture Capture Lunch and Learn, Canyon, Texas.

Honors-Awards-Grants

Scholarship

2014: Betty Henry Nursing Scholarship. West Texas A&M University.
2013: Betty Henry Nursing Scholarship. West Texas A&M University.