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Sexually Transmitted Disease Awareness Amongst Adolescents 13 to 18 Years of Age

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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MS, Chamberlain University, 2017

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Sexually transmitted infections or diseases (STIs/STDs) acquired through sexual activities lead to compromised sexual health. The adolescent population is at high risk of acquiring STIs/STDs due to their lack of knowledge. The gap in practice was that the nurse practitioners (NPs) were deficient in standard of care; adolescent patients lacked consistent evaluation, education, or documentation of the education in their medical records. The practice-focused question focused on the evaluation of the effectiveness of a quality improvement (QI) initiative that incorporated the use of the American Association for Pediatrics screening and Center for Disease Prevention and Control (CDC) treatment guidelines as well as the NPs use of the Sexual Transmitted Disease Knowledge Questionnaire to educate and treat adolescents about STDs/STIs. The methodology used a before and after design to evaluate the NPs' compliance with the guidelines to address the practice gap. The framework used to organize the project was the Plan Do Act Study (PDSA) model. Evidence-based information was obtained from the CINAHL, CINAHL plus, EBSCOhost, ProQuest, Medline, and PubMed databases. Other sources of evidence include the CDC.gov, Maryland.gov, Healthy People.gov, and NIH.gov. 100% compliance in the assessment, education, and reporting conducted during the 3 months of prospective with comparison the retrospective data from records showed improved compliance of the NPs standard of practice. Therefore, this DNP QI evaluation project showed a positive practice change, which promotes social change in the adolescent population within the healthcare clinic and the greater community by reducing STDs/STIs.

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Dedication

This educational paper is dedicated to my husband, my three children, and my mother for their support and understanding throughout the many days and nights I devoted to the development of the DNP project. I wish to appreciate my friends that encouraged me to continue, despite times I had thoughts of giving up the doctoral program.

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To my Chairperson and Mentor, Dr. M. Terese Verklan, for believing in me and her diligence and thorough scrutinizing my documentation for this DNP project to ensure my quality improvements project was accomplished. I thank the manager, Damilola, and the medical director, Dr. Jean, for their support at the clinic where this project was implemented. My thanks also go to the nurse practitioner and all the staff at the pediatric office.

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Section 1: Nature of the Project

Introduction

Sexually transmitted disease (STD) and sexually transmitted infection (STI) are terms used interchangeably and denote the health problems resulting from unprotected sexual habits amongst the adolescent population. The rise in the rate of STDs/STIs amongst adolescents has been alarming on a global scale. The Center for Disease and Prevention (CDC) estimates that youth who are 15 to 24 years of age make up just over one quarter of the sexually active population, as well as the ten million new cases of STDs/STIs in United State annually. Because most STDs/STIs are treatable, it is paramount that clinical staff in outpatient clinics assess and identify adolescents at risk (Alyssa & Elizabeth, 2017). This Quality Improvement (QI) project evaluated the effectiveness of an initiative focused on treatment compliance that incorporates the American Association for Pediatrics (AAP) screening; the CDC treatment guidelines; and the nurse practitioners' (NPs) use of the Sexual Transmitted Disease Knowledge Questionnaire (STD-KQ) to treat and educate adolescents about STDs/STIs. The use of AAP and CDC screening, as well as treatment guidelines for STIs/STDs, would allow the staff to improve their practice outcomes. The nursing staff in a community-based outpatient clinic in the Northeast region of the United States would comply with their role in identifying at risk adolescents who are 13 to 18 years of age at each office visit by using the AAP and CDC treatment guidelines; these include health assessment to identify the increasing prevalence of STDs /STIs early in this target group. This QI evaluation project aligned with Walden University's mission for social change by assuring that

treatment compliance related to the appropriateness of care to adolescents should be maintained.

Problem Statement

At the intended project site, there has been a high incidence of positive STIs/STDs. At least two cases of STDs/STIs are identified weekly, which indicates that an average ten cases of STDs/STIs are treated monthly. Although sixty percent of sexually active teenagers report using condoms, 25% become infected with STDs/STIs (CDC, 2013, Fisher et al., 2020). The nurse practitioner and the nurses at the Northeast pediatric clinic were not consistently screening for STIs/STDs and were not providing STIs/STDs education to the adolescents presenting for care. This kind of intervention can prevent infections and help increase recognition of symptoms, which leads to a delay in diagnosis, as well as the delay in the treatment of symptoms. Because of the inconsistency in the use of the Adolescent Sexual Health STI guideline by AAP (Appendix A) and the 2015 STD Treatment Guideline by CDC (Appendix B) by the nurse practitioners and clinic nurses, as well as a lack of consistent STIs/STDs education for the adolescents, a QI initiative was started that included an educational program to improve the nurse practitioner and clinic nurse's utilization of screening and treatment guidelines. As a part of the QI initiative, a standardized tool was introduced to assess the knowledge level about STIs/STDs in the identified adolescent age group so that the nurses could intervene as indicated; however, the effect of the educational program and the use of standardized tool on screening and educating adolescents by the nurse practitioner and clinic nurses is unknown. Hence, this quality improvement project aimed

to evaluate the effectiveness of clinical staff's consistency in applying the recommended guidelines during adolescents' screening, treatment, and receiving of educational practices in the clinic.

The relevance of the project was the need to evaluate the QI initiative that aimed at addressing the gap in education and treatment relating to STDs/STIs amongst adolescents aged 13-18 years old. Evidence-based sex education increases rates of condom use and decreases rates of STDs/STIs (Lopez et al., 2016). This QI project evaluated the effectiveness of the clinic's care practices, as provided by the nurse practitioner and clinic nurses, which include consistent use of the STD-KD questionnaire in identifying the adolescents' gap in knowledge related to STDs/STIs, along with the associated education and the consistent use of the Adolescent Sexual health STI guideline by AAP, and the 2015 STD Treatment Guidelines as evidenced by the documentation in the institution's electronic medical record (EHR).

The significance of the doctoral project for nursing practice was that the project identified staff compliance to the AAP and CDC recommended STDs/STIs screening and treatment guidelines. Staff adherence to the recommended screening and treatment guidelines can promote healthy lifestyles and re-enforce safe sex orientation and practices for the adolescent population. The nursing staff is required to provide patient-specific STI/STD education and treatment based on current evidence-based treatment guidelines. It was anticipated that the evidence-based change in practice would promote adolescents' positive health outcomes, and the ripple effect will propel a social change in the community at large. Seiler-Ramadas, et al. (2021) explained that "provision of adolescent

centered education is a developmental necessity at the prime of an adolescent's sexual orientation with anticipation that he/she has a better sexual identity, decisions, and relationships due to changes in their physical, psychological, and emotional capabilities" (p. 120).

Purpose Statement

The meaningful gap in practice that fueled the QI initiative in this Northeast outpatient pediatric clinic was the constant inflow of adolescents who lacked understanding about preventing STIs/STDs and the inconsistent use of current evidence-based treatment. The need to improve the quality of care provided in the outpatient clinic was a priority; therefore, evaluation of current staff treatment practices that could facilitate a decrease in the current sexual activity and STIs/STDs rates amongst the adolescent population was an important goal. The Healthy People 2030 objectives for STDs/STIs are to focus on screening for chlamydia in sexually active females younger than 25 years, and to establish goals to reduce the rates of chlamydia, gonorrhea, and syphilis in the vulnerable populace (AAP, 2021). The purpose of this QI project was to evaluate the nurse practitioners' consistency in using the recommended screening and treatment guidelines to assess and educate the adolescent regarding STDs/STIs. Feldstein et al. (2020) explained that the best marker for measuring sexual risk-taking behavior that contributes to teen pregnancy, increases in STDs, and other health risks gap comes from evidence-based education. Lopez et al. (2016) supported the incorporation of an evidence-based program for STIs/STDs using the STD- KQ questionnaire (Smith et al.,

2020; Jawski et al, 2007) links to evidence-based sex education, which will increase the use of condoms and decrease the rate of STDs.

The guiding practice-focused question for this QI doctoral project was, "Are the NPs at the Northeast pediatric clinic consistently screening for STIs/STDs and providing STIs/STDs education to the adolescents as measured using the STD-KQ questionnaire and documentation of education and follow-up in the medical record?" The NPs and clinic nurses were required to incorporate the Adolescent Sexual Health STI guideline by the AAP, and the 2015 STD Treatment Guideline by the CDC to identify and treat at-risk adolescents during office visits. The purpose of this QI project was to evaluate the consistency of the use of the AAP/CDC screening guidelines by the NPs in the treatment of at-risk adolescents during office visits, documentation of education and follow-up.

Tibbits and Siahpush (2017) discuss the crucial necessity to understand clinicians' constraints to implementing STI education and services, and to collaboratively develop preventive measures. In order to achieve optimal health outcomes, adolescent patients require STI evidence-based testing, counseling on safer sex adherence, comprehensive STI/STD care, and access to condoms and contraception (Miller, et al 2019). According to Krader and DiClemente (2018), both the nurses and care providers should inquire of their pediatric patients about sexual activity, provide high-intensity prevention counseling at all clinical visits to sexually active patients, and follow guideline recommendations for screening, testing, and treatment. Further, Halpern et al., (2004) suggested that racial and gender differences in risk behavior patterns have significant outcomes for contracting STDs/STIs, which influences the different patterns of risky behavior in adolescents.

However, at the pediatric primary care clinic, adolescent sexual history documentation and STI/HIV screenings were not completed, which is inconsistent with AAP and CDC suggestions (Goyal, et al. 2014). This QI project evaluates if the gap in practice was bridged by determining if the NPs are performing the STI/STD assessment, educating the adolescent, and staying compliant to the recommended AAP/CDC guideline requirements.

Nature of the Doctoral Project

Tisler-Sala et al. (2018) discussed lack of adherence to STI guideline due to limited research study. The evidence was obtained from the CINAHL, CINAHL plus, EBSCOhost, ProQuest, Medline, and PubMed databases. Other sources of evidence include the Centers for Disease Prevention and Control, Maryland.gov, Healthy People.gov, and NIH.gov. The Boolean operators and search terms that were used includes *sexually transmitted diseases, sexually transmitted Infection, AND adolescents ages 13-18 years, males and females who are sexually active, side effects of sexually transmitted diseases, adolescents* AND *sexually transmitted*. The inclusion criteria include peer reviewed studies written in English, participants who are adolescents aged 13-18 years with sexually transmitted disease, and ambulatory, primary, or community care settings. Exclusion criteria include studies older than five years, case studies, and editorials. A total of 108 articles were located within the Walden University library, of which 20 articles have been used for this project.

The Walden University Manual for Quality Improvement Evaluation Projects guided this DNP QI project. Retrospective data containing the number of positive cases

of STDs/STIs that were treated in the last 3 months, before use of the STD-KQ questionnaire, and the number of the cases that were reported to the Department of Health Services (Bowen et al., 2016) were obtained from the electronic health record (EHR) by the Medical Assistant on a universal serial bar (USB). The deidentified data included age, gender, assessment methods, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data were uploaded to an Excel spreadsheet on a password protected computer kept in a private office. The prospective chart reviewed included the posttest score from the STD-KQ questionnaire during the assessment of the STIs/STDs of the adolescents ages 13-18 years, and the staff documentation in compliance with the pediatric treatment for the next 3 months after the implementation of the questionnaire. Alex, et al. (2018) explained that data extracted from the EMR was appropriate to create simple models of disease progression and perseverance.

Significance

Physicians and other health care providers have a vital role in averting and treating STIs/STDs (Workski, et al., 2021). The potential contribution of the doctoral project to nursing practice is providing standardized adolescent care in compliance with the recommended AAP/CDC screening and treatment guidelines. As a result, the providers can deliver a safer STI/STD risk assessment using the STD-KQ questionnaire (Smith et al., 2020). Further, the adolescents would receive a comprehensive health assessment care that may potentially decrease risky behaviors because they have been educated about STIs/STDs; even if they didn't have an infection at the time, then they

would receive appropriate and follow up care as needed. Nurses have the capacity and opportunity to disseminate information about sexual and reproductive health to adolescents and their parents (Santa Maria, et al., 2017). The impact of using the STD-KQ questionnaire would provide a direct platform for provider-adolescent relationships that create trust and open the avenue for communication for this age group.

Thorough sexual health education (SHE) decreases risky sexual behavior and increases protective behavior in adolescents (Pavelová, et al., 2021). Through safe sex education provided, the adolescents would be well informed, which would also help disseminate and reinforce safe sex behavior amongst their friends and sexual partners within the community. It is anticipated that the impact of STI/STD education amongst the adolescents would encourage positive safe sex behaviors, which would directly promote social change in the community at large.

This doctoral project has the potential for implementation in other healthcare settings to promote the best evidence-based outcomes for both the clinical providers and their adolescent population, as well as to increase STI/STD management in nursing practice and decrease spread in the community (Landgraf et al., 2017). The implementation of the STD-KQ questionnaire in nursing practice could help steer effortless and effective communication about STD/STI education and behavior changes in the adolescent population, with an expectation that the rate of STDs/STIs amongst this age group would decrease.

Summary

Section 1 explained the practice problem relating to STIs/STDs that fueled the intended project site's QI initiative, which led to this QI evaluation project. The problem was that it was unknown how effective the staff education was to improve inconsistent treatment practices by incorporating the AAP/CDC STI/STD treatment guidelines to better identify, assess, treat, and educate at risk adolescents in a Northeast US clinic. This QI project evaluated the NPs' effectiveness as it related to their compliance with the identified care processes in the clinic. The impact of this doctoral project in nursing practice is to engage the nursing profession by increasing the demand for adolescents' education and the use of the STD-KQ questionnaire in identifying risky sexual behaviors. The assessment and evaluation of STI/STD treatment as recommended in nursing practice is supported by literature research that clarifies the need to provide standardized care. The retrospective and prospective data collection would be used to evaluate consistency with AAP/CDC recommended treatment guidelines. In section 2, I will discuss the concepts, models, and theories, relevance to nursing practice, local background and context, role of the DNP student, and the role of the project team.

Section 2: Background and Context

Introduction

The purpose of this QI project was to evaluate nurse practitioners' consistency in assessing and educating the adolescent population regarding STDs/STIs by incorporating the AAP/CDC STI/STD treatment guidelines in their practice. The practice focused question was, "Are the NPs and nurses at the Northeast US pediatric clinic consistently screening for STIs/STDs and providing STIs/STDs education to the adolescents as measured by using the STD-KQ questionnaire and documentation of education and follow-up in the medical record?" Section 2 will include the concepts, models, and theories, relevance to nursing practice, local background and context, and the role of the DNP student.

Concepts, Models, and Theories

The Plan-Do-Study-Act model (PDSA model) was established by W. Edward Deming based on the previous work of Andrew Shewhart (Connell, 2021). Deming introduced the PDSA model in the healthcare industry to educate staff about the scientific process in an easy assimilation (Connell, 2021) as minute cycles of change that could be completed comparatively fast and initiated with fewer number of patients (Ogrinc et al., 2018; Reed & Card, 2016). The PDSA cycle focuses on the root cause of change by identifying a practice problem that can lead to transformation of ideas and intentions into action (Reed & Card, 2016). Further, PDSAs allow new knowledge to be constructed into an investigational process (Reed & Card, 2016). The main assumption of the PDSA was to evaluate the change intended with the implementation of the QI to the clinic. In the QI

initiative, the prediction of change for the experimental findings in the QI project was easily processed using the PDSA model to evaluate the effectiveness of the new resolution, as compared to the original problem identified in the Northwest US clinic. Therefore, the proposed output of PDSA was discovering a new and informed action (Reed & Card, 2016).

The discussion about the QI project was analyzed, and the goals of the projects were defined during the PLAN stage of a PSDA cycle. Christoff (2018) described the PLAN cycle as, "the phase that the who, what, when, and where of the plan is decided" (p. 198). During this stage, the various roles of the stakeholders were identified, in terms of using the recommended AAP/CDC screening and treatment guidelines to educate the adolescents during health visits in the clinic. The nurses and the office staff were made aware of their roles in order to achieve the expected objective of the QI project.

The DO stage of the PDSA is the time all strategies are implemented, and information that will be appropriate for determining the effectiveness of the QI project is obtained (Christoff, 2018). In this stage, the collection of retrospective and prospective data was to determine if the NPs were consistently implementing the AAP/CDC screening and treatment guidelines by using the provided questionnaires to identify the educational needs of the adolescents, providing the needed education, and conducting the necessary documentation during the health visit. The medical assistant was responsible for retrieving all the documented deidentified data from the medical record of the clients who received the STD-KQ questionnaire and received education during the 3 months before and after the implementation of the AAP/CDC screening and treatment guidelines.

Analysis of the data collected occurred during the STUDY stage of the PDSA cycle. The deidentified data included age, gender, assessment methods, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data were uploaded to an Excel spreadsheet on a password protected computer kept in a private office. Finally, the ACT stage of the PDSA cycle was when a decision was made about the NPs' consistent use of the AAP/CDC screening and treatment guidelines during the adolescent's visit to the clinic. Christoff (2018) explains that at this stage in the PSDA cycle, a change was adopted, abandoned, or the cycle is run again.

Definition of Terms

High risk sexually active adolescents: Adolescents with behaviors that intensify health risk, such as unwanted pregnancy and/or sexually transmitted infections (Abiodun, et al. 2021).

Adolescence: A period of important physical, psychological, and mental transition that is categorized by the propensity for youths to explore and experiment in their search for self-identity and independence between ages 13-18 years (Abiodun, et al. 2021).

Relevance to Nursing Practice

The Problem of Sexually Transmitted Diseases in Nursing Practice

In healthcare, nurses have the responsibility to evaluate patients' emotional well-being and have the expertise to sustain and promote a supportive relationship (Scott and Shannon, 2019). According to Goyal et al. (2014), the challenges of irregular documentation of sexual histories and performed STI/STD testing on adolescent patients occur with pediatric primary care clinicians. Hensel et al. (2021), in their 2018 National Survey of Sexual Health and Behavior, an online national representative study of sexual health experiences of people in the U.S., conveys limited availability to national documented studies on the frequency of adolescents' STI/STD assessments. Due to the inconsistent assessments for STI/STD in adolescents, paired with the high prevalence of STIs/STDs among adolescents, the CDC and AAP recommend universal and routine screening for all sexually active adolescents rather than targeted testing (Goyal et al. 2014; Mckee, et al., 2018). Additionally, the AAP suggests early identification of the adolescents' personal risk assessments and counseling because they are essential factors during routine adolescent well visits. Martyn et al. (2006), conducted a feasibility study to estimate the clinical utility and the probability of using an Event History Calendar for sexual risk assessment. This study showed that nurses who reviewed the EHC for sexual risk assessment indicated that they were able to identify the adolescent sexual risk and risk co-morbidity (Martyn et al., 2006).

The literature does show that the STD/STI knowledge amongst adolescents is superficial, even with the various sources of information (Martyn et al., 2006). STI

observation data have been neglected and flawed by under reporting, unpredictable reporting, lack of representation, limited geographic scope, and changing methodologies (Taylor & Korenromp, 2017). Therefore, an enhanced monitoring systems at regional, national, and global levels should consistently produce judicious, dependable, and precise prevalence data (Taylor & Korenromp, 2017).

Sexually transmitted diseases/STIs are a prevalent health problem within the younger population globally (Alyssa et al., 2017; Rajalakshmi & Kalaivani, 2016). The current state of the STIs/STDs epidemic in the Northeast US pediatric clinic under study was that the NPs did not reflect the global initiative for preventing the health threats caused by STIs/STDs and are under reporting the level of preventive interventions provided to adolescent population. According to an assessment by the World Health Organization (WHO), STIs/STDs are the most common form of communicable disease worldwide (Taylor & Korenromp, 2017). As discussed at the 69th Assembly, the impact of STIs/STDs on global surveillance monitoring led to the implementation of three integrated global health sector strategies on HIV, viral hepatitis, and STIs/STDs for the years 2016 to 2021 (Taylor & Korenromp, 2017). The succeeding WHO global health sector strategy on STIs/STDs (2016–2021) was a global objective for 2030 that includes a 90% decrease in syphilis occurrence, 90% drop in gonorrhea prevalence, and 50% or fewer cases of congenital syphilis per 100,000 live births in 80% of countries (Taylor & Korenromp, 2017).

Consequently, it is essential to change the sense of individual and group accountability, which will lead to more effective and accepted behavioral changes to

improve the age appropriate STI/STD information that the adolescent population receive and retain (Clark et al., 2002). The NPs working in the Northeastern US clinic were not consistently using the AAP and CDC guidelines in their assessment of at-risk adolescents during their clinic visit. Feldstein et al. (2020) explain that the best marker for measuring sexual risk-taking behaviors that contribute to teen pregnancy, increases in STDs/STIs, and gaps in other health risk behaviors comes from evidence-based education. The standard of care that has been in use in the health care setting includes adolescent-nurse time alone to address sexual health communications without the parents being present in the room (Santa Maria et al.,2017).

The NPs have the capability to ease the adolescent's nervousness by addressing and initiating conversation about sexual health to improve their knowledge about STIs/STDs and by leaving room for an open communication between themselves and the patient (Santa Maria et al., 2017). National research conducted for a sample of 5th and 12th graders, which consisted of 58% of boys and 65% of girls, showed that only 24% of boys indicated the providers evaluated them for the consistency of their use of contraceptives to prevent STIs and STDs. The same research noted that 28% of girls reported that the NPs did not ask about STIs/STDs during their visits (Santa Maria, et al., 2017). By using the STD-KQ questionnaire, the NPs would be aware of the different levels of each patient's knowledge about STIs/STDs and could then formulate an individualized nursing care plan to address each adolescent's knowledge gap about STIs/STDs and risky sexual behaviors. The NPs' responsiveness to increase STIs/STDs

knowledge and increase effective communication skills for their adolescent patients is the standard of practice to bridge the gap in practice (Santa Maria, et al., 2017).

This doctoral project has the potential to address the gap in practice by effectively evaluating the implemented QI initiative for compliance and consistency in the use of recommended screening and treatment guidelines through clinical data evaluation processes. Consistently following the recommended CDC and AAP screening and treatment guidelines will increase the WHO projected goal of ensuring that the number of cases for STIs/STDs amongst adolescents were addressed at the nursing level. The NPs' interventions would provide access to preventive counseling and treatment for adolescents in all nursing practice settings. Nurses have the knowledge and skills required to deliver evidence-based counseling and services to adolescents and parents (Santa Maria, et al., 2017). Collectively, nurses can use their unique combination of knowledge and skills to make a positive impact on an adolescent's sexual and reproductive outcomes (Santa Maria, et al., 2017).

Local Background and Context

The Northeastern US pediatric clinic lacked an organized system of identifying the knowledge base of adolescents related to sexually transmitted diseases, and the use of the AAP/CDC screening and treatment guidelines. The clinic where this project was implemented would evaluate if the NPs are consistently following the guidelines and educating the patients had limited use of EBP and no standard practice guidelines for STIs/STDs readily available for providers to use during patient encounters. The clinic providers lacked an organized system of identifying the knowledge base of adolescents

on sexually transmitted diseases, and the use of the AAP/CDC screening and treatment guidelines. Therefore, evaluating the consistency in practice for the NPs' use of the recommended guidelines for screening and treating the adolescent population by administering STD-KQ questionnaires during each office visit is a priority.

Young people ages 15 to 24 years make up just over one-fourth of the sexually active population, but account for half of the twenty million new STIs/STDs that occur in the US each year (CDC, 2017). STDs/STIs creates significant healthcare problems amongst the adolescent population, therefore, it is important to evaluate if the NPs are consistently following the AAP/CDC guidelines and using the STD-KQ questionnaires during each office visit to educate the adolescent patients and document that education. Evidence-based sex education improves the rate of condom use, which decreases the rates of STDs/STIs (Lopez et al., 2016). The need to improve the quality of care provided to the teenagers in the outpatient clinics remains a priority.

Locally Used Terms Relevant to Understanding the Doctoral Project

Sexually transmitted diseases (STDs): any one of various diseases that can be transmitted by direct sexual contact (Merriam-Webster Dictionary, n.d.).

Sexually transmitted infections (STIs): are acquired during unprotected sexual activities (CDC, 2013; Workowski & Bolan, 2015).

The Sexually Transmitted Disease-Knowledge Questionnaire (STD-KQ): a twenty- seven question instrument that assesses the knowledge of chlamydia, genital herpes, gonorrhea, hepatitis B, HIV and HPV (Jaworski & Carey, 2007).

State and Federal Context Applicable to the Problem in the Doctoral Project

> The 2015 CDC updated guideline was based on the following plans:
>
> Accurate risk assessment and education and counseling of persons at risk on ways to avoid STDs through changes in sexual behaviors and use of recommended prevention services; pre-exposure vaccination of persons at risk for vaccine preventable STDs; identification of asymptomatically infected persons and persons with symptoms associated with STDs; effective diagnosis, treatment, counseling, and follow up of infected persons; and evaluation, treatment, and counseling of sex partners of persons who are infected with an STD" (Workowski & Bolan, 2015, p.2).

The Healthy People 2030 objectives for STDs/STIs are to increase screening and testing for STIs, identification risk factors, and provide treatment, enhancing health and prevent complications (Health People, 2020). At the State level, the Maryland Department of Health (MDH) Center for STI Prevention (CSTIP) tracks the incidence of STIs/STDs through the collaboration of health care providers, public health services, and the laboratory services (Maryland Health Department, 2019). According to the 2019 Maryland STI Annual Report. adolescents rank at least 13 % of the population at the geographic area where the Northeast clinic is located, in which 64% case of Chlamydia, and 39% cases of Gonorrhea was reported in 2019 (MDH, 2019).

Role of the DNP Student

I am a Family Nurse Practitioner working in a pediatric clinic providing care to pediatric patients. Being a provider in that pediatric clinic allows me to have firsthand knowledge of the time constraints when assessing patients and the chaos in educating the adolescent population. I will evaluate the NPs' consistency and use of the AAP/CDC STI/STD treatment guidelines in their assessment practices to better identify, treat, and educate at-risk adolescents in the clinic located in the NE US. My personal challenges and lack of office STI/STD protocols initiated the need for this DNP project. Most STDs/STIs are now diagnosed by private providers, who understand that prevention and treatment of STIs/STDs are long-established public health services (Meyerson et al., 2019). Furthermore, to the education of the adolescent population, reporting positive results of STI/STD case was a requirement. All diagnoses of STIs/STDs must be reported to the State Department of Health office to help prevent further spread of the disease (CDC, 2013; CDC, 2017).

Role in Doctoral Project

My role in the doctoral project is the developer and leader of the quality improvement initiative. In the role of developer, I designed the project and guided it alongside the clinic management to provide an evidence-based approach to educating the adolescents and increasing screening and treatment compliance with the AAP/CDC guidelines (AAP). As the project leader, I will ensure collaboration with the NPs and Medical Assistants (MA) in the Northeast US clinic and ensure that the use of STD-KQ questionnaire, posters and all educational materials provided for easy assessment of the

adolescents' knowledge are consistently used and documented. Krader and DiClemente (2018) explained that both the nurses and care providers should inquire of their pediatric patients about sexual activity, provide high-intensity prevention counseling at all clinical visits to sexually active patients, and follow guideline recommendations for screening, testing, and treatment.

Motivation for the Doctoral Project

My motivation for this doctoral project was to ensure that NPs use the recommended AAP/CDC guidelines consistently during all pediatric office visits and ensure that the STI/STD questionnaires were administer to each adolescent before providing STI/STD education. Research has established that abstinence-based programs do not prevent young people from having sex or inspire them to have safe sex (Sherr & Dyer, 2010; Stanger-Hall & Hall, 2011). Every six of ten sexually active teenagers claim to be using condoms; however, one in four adolescents become infected with STDs/STIs. Approximately 25 percent of the sexually active adolescent population are likely to be infected (CDC, 2013; Fisher et al., 2020). I am motivated to make changes in the work environment so that NPs and their pediatric patients have a smooth and effective interaction during every clinic visit, and to ensure all state recommended screening and treatment guideline are effectively followed.

Potential Bias

There was no potential bias related to this project. The main goal of the doctoral project was to improve the patient care processes in the outpatient clinic. With my experience in caring for the adolescent population, I did not presume any bias with

evaluating the care processes that will ensure compliance with the recommended protocols for screening and treating for STIs/STDs. This doctoral project was supported by evidence-based literature, and the benefit will improve the nursing profession. Furthermore, my project was reviewed and monitored appropriately by my project chair, and careful attention was given to avoid any bias.

Summary

The Northeast Pediatric clinic lacked a standardized approach to assess and educating the adolescent population who visit the clinic for STIs/STDs. The gap in practice led to the development of the QI initiative to evaluate the consistency of the NPs' use of the Adolescent Sexual Health STI guideline by AAP, the 2015 STD Treatment Guidelines, and the STD-KQ questionnaire to assess and provide patient centered education. The nursing practice PSDA model supported the project and guided the four stages of change applicable to the implementation of this DNP project. In view of the knowledge gap of the adolescent population in the Northeast pediatric clinic, the use of the STD-KQ questionnaire was implemented to evaluate and provide an individualized education in the clinic. My role will be to lead and engage a team of participants through the QI initiative stages of planning, implementation, and evaluation framed by the PSDA model (Reed & Card, 2015). Section 3 includes the collection and analysis of evidence, practice-focused question, an explanation of the sources of evidence, and the steps for the DNP project.

Section 3: Collection and Analysis of Evidence

Introduction

Misdiagnosis of STDs/STIs is inevitable if there is improper risk-assessment of the target population. Since most STDs/STIs are treatable, it is vital that the clinic staff assess and identify adolescents at risk (Alyssa & Elizabeth, 2017). Most often, STDs/STIs are diagnosed because of incidental laboratory investigations during office visits. Inconsistencies in self-reporting of sexual habits make it exceedingly difficult for the clinical staff to identify adolescents who are at risk (Abdul et al., 2018). The practice problem is that the adolescent is not knowledgeable with respect to acquiring and recognizing symptoms of STDs/STIs, and the staff are not consistently identifying at-risk adolescents during office visits. Section three will discuss the practice focused question, sources of evidence, and analysis and synthesis.

Practice-Focused Question(s)

This QI project evaluated the effectiveness of the clinic's care practices provided by the nurse practitioners, which include consistent use of the STD-KD questionnaire to identify the adolescents' gap in knowledge related to STDs/STIs along with the associated education and the consistent use of the Adolescent Sexual Health STI guideline by AAP and the 2015 STD Treatment Guidelines, as evidenced by the documentation in the institution's electronic medical record (EHR). The nursing profession plays a significant role in impacting the wellness of the adolescent population through education and promotion of sexual and reproductive health (Terhaar et al., 2016). Consequently, it is essential to collaborate with the nursing staff and to implement plans

that will breach the gap in knowledge to produce a convenient approach for a quick and useful tool for the education and assessment of the at-risk group, adolescent population (Terhaar et al., 2016). The practice-focused question for this QI doctoral project was, "Are the NPs at the Northeast US pediatric clinic consistently screening for STIs/STDs, providing STIs/STDs education to the adolescents as measured using the STD-KQ questionnaire and documenting the education in the medical record?"

Clarification of Purpose as it Aligns to the Practice Focused Question

The purpose of this QI project was to evaluate the consistency of the use of the AAP/CDC screening guidelines by the NPs in the treatment of at-risk adolescents during office visits, documentation of education and follow-up. The NPs' use of the approved Adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC to identify and treat at-risk adolescents during office visits was evaluated from the EHR chart documentation. STIs/STDs screening and treatment were assessed through the NPs' chart documentation in the EHR to determine their compliance to Adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC.

Operational Definitions

Adolescents: The phase of adolescence that is an intermediate stage of development between childhood and adulthood. For this DNP project, the age range for an adolescent is between ages 13-18 years (Efrati and Amichai-Hamburger, 2021).

Sexually Transmitted Diseases (STDs): Diseases contracted from bacteria, virus, and protozoa from unprotected sexual activities (CDC 2015).

Sexually Transmitted Infections (STIs): Infections acquired during unprotected sexual activities (CDC, 2013, Workowski & Bolan, 2015).

Sources of Evidence

A literature search was conducted using the CINAHL, CINAHL plus, EBSCOhost, ProQuest, Medline, and PubMed databases. The Centers for Disease Prevention and Control, Maryland.gov, Healthy People.gov, and NIH.gov were also searched for relevant information on STIs/STDs. The Boolean operators and search terms that were used included *sexually transmitted diseases AND adolescents ages 13-18 years, sexually transmitted diseases AND questionnaire AND adolescents, males and females who are sexually active, side effects of sexually transmitted diseases,* and *adolescents AND sexually transmitted*. The inclusion criteria included peer reviewed studies written in English, adolescents aged 13-18 years with sexually transmitted disease and ambulatory care, primary care, or community care settings. Exclusion criteria include studies older than five years, case studies, and editorials.

Because most STDs/STIs are treatable, it is paramount that clinical staff assess and identify adolescents at risk (Laing & Lederer, 2017). Most often, STDs/STIs are diagnosed because of incidental laboratory investigations during office visits. Inconsistencies in self-reporting of sexual habits make it exceedingly difficult for the clinical staff to identify adolescents who are at risk (Abdul et al., 2018). The practice problem is that the adolescent was not knowledgeable with respect to acquiring and recognizing symptoms of STDs/STIs, and the staff were not consistently identifying at-risk adolescents during office visits. Frequently, the presence of family members

discourages the adolescent from verbalizing sexual health concerns. Parental objections often hamper the screening for STDs/STIs in the outpatient clinics, which leads to delays in diagnosis and treatment before the appearance of symptoms. Abstinence-based programs do not prevent young people from having sex or inspire them to have safe sex (Sherr & Dyer, 2010; Stanger-Hall & Hall, 2011). Every six of ten sexually active teenagers claim to be using condoms; however, one in four adolescents become infected with STDs/STIs (Fisher et al., 2020), such that approximately 25 percent of the sexually active adolescent population are likely be infected (CDC, 2013). At the outpatient clinic site, at least two cases of STDs/STIs are found weekly, which shows that an average of ten cases of STDs/STIs is treated monthly.

Although evidence-based sex education increases rates of condom use and decreases rates of STDs/STIs (Lopez et al., 2016), there is a dire need to improve the quality of care provided in the outpatient clinics. Feldstein et al. (2020) explained that evidence-based education is the best measurement tool to assess an increase in sexual risk-taking behavior, teen pregnancy risks and STIs/STDs. In the practice site, creating awareness of STIs /STDs in the adolescent population will help support compliance with the AAP and the CDC sexually transmitted disease treatment guidelines (CDC, 2013; Silva & Pinheiro, 2013). Although most STDs/STIs can be diagnosed by private providers, STDs/STIs prevention and treatment are long-established public health services (Meyerson et al., 2019). All diagnoses of STIs/STDs are reportable by the clinic to the State Department of Health office to help prevent further spread of the disease (CDC, 2013, CDC, 2017).

Approach

The DNP project is a QI project that will use a before-after design. The data for the project would be obtained by the medical assistant from review of thirty medical records that will contain data generated from the STD-KQ questionnaire used in evaluation and education of the adolescent, and documentation of that education provided by the NPs, use of the STD/STI guideline for treatment and follow up appointment. The deidentified data will include age, gender, assessment methods, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data was provided to me on a universal serial bar (USB) and was uploaded into an Excel spreadsheet on a password protected computer kept in a private office. The purpose of the QI initiative was to evaluate the staff compliance and consistency in the application of the recommended AAP/CDC screening and treatment guidelines for the care and treatment of adolescents with STDs/STIs.

Participants

The participants in the QI project include NPs, RN, and MA collaborating with the Pediatrician at the clinic. The NPs are family nurse practitioners from accredited schools with master's degrees. The registered nurse holds a board-certified associate degree. The MA completed her training from one of the State's MA schools but has not taken her certificate examination yet. The staff all have collaborated with the pediatrician for a minimum of 2 years.

Procedures

Retrospective data was obtained by the medical assistant from the electronic medical records (EMRs). The data contained the number of positive cases of STDs/STIs that were treated in the 3 months prior to the use of the STD-KQ questionnaire and the number of the cases that were reported to the Department of Health Services. The deidentified data will include age, gender, assessment methods, the number of individual scorings of the 27 criteria to assess their knowledge of chlamydia, genital herpes, gonorrhea, hepatitis B, HIV, and HPV as outlined in the STD-KQ tool, diagnostic test(s) ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data was provided to me on a USB and was uploaded into an Excel spreadsheet on a password protected computer kept in a private office.

The prospective data was obtained for the first 3 months after the education was provided to the NPs by the medical assistant. The deidentified data would contain the age, gender, assessment methods, the number of individual scorings of the 27 criteria to assess their knowledge of chlamydia, genital herpes, gonorrhea, hepatitis B, HIV and HPV as outlined in the STD-KQ tool, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data would be provided to me on a USB and would be uploaded into an Excel spreadsheet on a password protected computer kept in a private office.

The retrospective and prospective data will be used to evaluate the NPs consistent use of the Adolescent Sexual Health STI and the 2015 STD Treatment Guidelines to identify and treat at-risk adolescents during office visits which will be evaluated from the

EHR chart documentation. The consistency of the NPs implementation of the STD-KQ questionnaire, the effectiveness of the health department reporting and STD education for adolescents in the Northeast Clinic will be evaluated by the DNP QI project.

Protection

Walden IRB approval and the site Pediatrician approval was obtained before implementation of this DNP project. All data would be deidentified and provided on an encrypted USB. The data would be uploaded to a private computer that is password protected and kept in a private office. No potential ethical issues will be present in this project and there will be no conflict of interest.

Analysis and Synthesis

Analysis of the collected data will focus on the STUDY stage of the PDSA cycle. The deidentified data will include age, gender, assessment methods, the number of individual scorings of the 27 criteria to assess their knowledge of chlamydia, genital herpes, gonorrhea, hepatitis B, HIV and HPV as outlined in the STD-KQ tool, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. I will evaluate the de-identified retrospective data collected 3 months prior to the start of the QI project which includes the age, gender, the assessment methods used in identifying at risk adolescents, the documented education provided, and the number of adolescents reported to the health department. The retrospective data will be compared to the same data collected prospectively using comparative statistics.

Summary

The DNP QI project is focused on evaluating if the NP at the Northeast pediatric clinic is consistently using the recommendations provided in the AAP and CDC guidelines for screening and treating STIs/STDs for the adolescent age group. The QI project practice focused question is, are the NPs at the Northeast US pediatric clinic consistently screening for STIs/STDs, providing STIs/STDs education to the adolescents as measured using the STD-KQ questionnaire and documenting the education in the medical record?" The sources of evidence were obtained from the databases CINAHL, CINAHL plus, EBSCOhost, ProQuest, Medline, PubMed, The Centers for Disease Prevention and Control.gov, Maryland.gov, Healthy People.gov, and NIH.gov. The project will use a before-after design. Retrospective and prospective data include age, gender, assessment methods, the number of individual scorings of the 27 criteria to assess their knowledge of chlamydia, genital herpes, gonorrhea, hepatitis B, HIV and HPV as outlined in the STD-KQ tool, diagnostic test ordered, treatment provided, education provided, and documentation of cases reported to the health department. The data will be analyzed by using comparative statistics. Section 4 will describe the findings, implications, and recommendations of the project after the completion of the project.

Section 4: Findings and Recommendations

Introduction

The effect of sexually transmitted infection or disease in adolescents is a growing concern due the continuous negative impact and complications that are preventable if evidence-based established screening, education, and treatment options are implemented in the outpatient pediatric office. The adolescent population also accounts for 50% of all reported gonorrhea cases, 65% of all reported chlamydia cases, and 22% of all reported HIV diagnoses documented in 2015 (Grieb et al., 2019). Therefore, the need to accurately assess and educate this age group is a global necessity.

The DNP Quality Improvement (QI) project focused on the evaluation of the nurse practitioners' consistent use of a standardized STD-KQ questionnaire in identifying knowledge gaps in adolescents in the office and providing patient-centered education. The NPs used the approved Adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC to evaluate the adolescents during office visits. Data were obtained from the STD-KQ questionnaire administered to the adolescent to determine the knowledge about STI/STD. The guidelines were also used by the NPs to document the education, treatment, and reporting of positive cases to health department in the EHR chart. The project evaluated how consistent the NPs were in applying the guidelines in practice. The practice focused question was, "Are the NPs at the Northeast US pediatric clinic consistently screening for STIs/STDs, providing STIs/STDs education to the adolescents using the STD-KQ questionnaire and documenting the education in the medical record?"

The sources of evidence for this DNP project were obtained from the literature search conducted using the CINAHL, CINAHL plus, EBSCOhost, ProQuest, Medline, and PubMed databases. The Centers for Disease Prevention and Control, Maryland.gov, Healthy People.gov, and NIH.gov and were also searched for relevant information on STIs/STDs. The Boolean operators and search terms that were used included *sexually transmitted diseases AND adolescents ages 13-18 years, sexually transmitted diseases AND questionnaire AND adolescents, males and females who are sexually active, side effects of sexually transmitted diseases,* and *adolescents AND sexually transmitted*. The inclusion criteria included peer reviewed studies written in English, adolescents aged 13-18 years with sexually transmitted disease and ambulatory care, primary care, or community care settings. Exclusion criteria include studies older than five years, case studies, and editorials.

Findings and Implications

The data collected were the de-identified retrospective data 3 months prior to an educational intervention given outside the scope of this project. The data included the age, gender, the assessment methods used in identifying at risk adolescents, the documented education provided, and the number of adolescents reported to the health department. This QI project evaluated the effectiveness of the education focused on treatment compliance that incorporated the American Academy of Pediatrics (AAP) screening, the Centre for Disease Control (CDC) treatment guidelines, and the nurse practitioners' (NPs) use of the Sexual Transmitted Disease Knowledge Questionnaire (STD-KQ) to education and treat adolescents about STDs/STIs. The use of AAP and

CDC screening and treatment guidelines for STIs/STDs allowed the staff to improve their practice outcomes.

The retrospective data reviewed from April 01, 2022, through June 30, 2022, did not show consistency in treatment, reporting, and education documentation in the use of STD-KQ questionnaire, the Adolescent Sexual Health STI guideline by the AAP, and the 2015 STD Treatment Guideline by the CDC (Table 1). Thirty adolescents received STI/STD diagnoses. Of the 30 adolescents, 28 adolescents had documented treatment, and 23 had education documented and were reported to the health department. The third month had double the number of adolescents from the previous months, due the summer break from school leading to increased number of adolescents seen in the pediatric clinic. The Center for Disease and Prevention (CDC) estimates that youth ages 15-24 years make up just over one quarter of the sexually active population, as well as the ten million new cases of STDs/STIs in United State annually (CDC, 2017; Li Y et al., 2017). Therefore, the doubling of the pediatric group within the age groups 13 to 18 years, as shown in Table 1, are inclined to STI/STDs infection; however, the increased cases of positive diagnoses with STI/STD among the adolescents' population, as compared with the cases in the previous month show that within ages 13-18 years, there is the need for awareness and education on STI/STD infection. These data were significant and support the need for the NPs to be consistent in the use of standardized guidelines as purposed in this DNP QI project for the adolescents in the pediatric clinic.

Table 1

De-identified Retrospective Data Obtained

Month	Age (years)	Diagnostic Test	Treatment	Reported
1	13-14	5	5	5
2	13-18	10	8	8
3	13-18	15	15	10
Month	Age (years)	Diagnostic test	Treatment	Reported

The deidentified prospective data collected by the MA from July 1 to October 1, 2022, included the age, gender, and STD-KQ questionnaire scores. Thirty adolescents were evaluated using the STD-KQ questionnaire and their scores ranged from 2 to 16 out of twenty-seven questions asked (Table 2). The prospective data showed that all the adolescents who were diagnosed with an STI/STD received treatment and education and were reported to the health department. There were double the number of adolescents in the third month because most of the adolescents were coming for their yearly wellness examination for the new school year. There were 30 adolescents evaluated in the prospective group. These data were significant and show the need to create STI/STD awareness amongst this age group, which is the purpose of the DNP QI project.

Table 2

Deidentified Prospective Data Obtained

Months	Age (yrs.)	STD-KQ scores	Diagnostics Test	Treatment
1	13-14	5-12	5	5
2	15-18	2-15	5	5
3	13-18	2-16	10	10
Months	Age (yrs.)	STD-KQ scores	Diagnostics Test	Treatment

The assessment method used in the prospective data included the STD-KQ questionnaire assessment tool, which consisted of the number of individual scorings of the 27 criteria to assess the knowledge of chlamydia (4 questions), genital herpes (6 questions), gonorrhea (4 questions), hepatitis B (3 questions), HIV (6 questions), and HPV (4 questions). Comparison of the prospective data to the retrospective data showed improved compliance of the NPs in treating, documenting education, and reporting the adolescents to the Department of Health after the diagnoses of STI/STD. Although there was inconsistency in the documentation of the education provided, and the reporting documented in the EHR for the retrospective data collected, there was 100% compliance in the assessment, education, and reporting conducted during the 3 months of prospective data after the implementation of the educational intervention. The prospective STD-KQ scores also showed that adolescents aged 13-18 years had a knowledge gap about STI/STD, which is a major factor contributing to risky sexual behaviors. Therefore, the use of the of STD-KQ questionnaire, the Adolescent Sexual Health STI guideline by the AAP, and the 2015 STD Treatment Guideline by the CDC facilitated the improvement of care that the adolescents received.

Recommendations

The introduction of the STD-KQ questionnaire, a standardized assessment tool, was a significant improvement in the assessment and identification of at-risk adolescents, and it eased the identification of the educational needs at the time of their office visit. During the retrospective data collection, neither the STD-KQ questionnaire or another assessment tool was in use for evaluation of the adolescent's knowledge about STI/STD.

The first recommendation is to consistently assess every adolescent to find the STI/STD knowledge gap and to supply patient centered education. The QI project created awareness on the importance of compliance and implementation of the adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC.

The second recommendation is that the NPs should add the AAP/CDC treatment guidelines to their care practice in the pediatric clinic. Going forward, the QI project will improve the NPs' assessment skills and compliance in their use of approved guidelines in patient care, thereby bringing nursing practice in the pediatric clinic to the standard of care. The QI project will enable the NP to provide consistent patient centered education for each adolescent at the pediatric clinic. Consistently educating adolescents about STI/STDs during clinic visits will lead to an increase in their knowledge level. The adolescents' knowledge about STI/STDs will indirectly result in different peer interactions in the community, thereby leading to an increase of the STI/STD information among other adolescents in the community at large.

Strengths and Limitations of the Project

The main strength of this DNP project was that the NPs provided standardized assessments of the adolescent population using the STD-KQ questionnaire. The improvement was evident in the prospective data analysis, which showed that there was a significant knowledge gap amongst the 13-18-year-old adolescents who presented to the pediatric clinic. The NPs were compliant in providing appropriate patient centered education to each of the adolescents. The NPs showed improved conformity to the use of

the Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC, as evident in their treatment and reporting compliance to the health department.

One limitation to the QI project was the lack of availability of support staff, such as medical assistants. The NPs were often left to administer the questionnaires to the adolescents prior to patient assessment for the scheduled office annual wellness examination or routine visit. More so, cost-effective management, preventive, and control strategies for STIs/STDs would provide an easier method for diagnostic testing (Adamson et al., 2020); thus, the staffing shortage greatly impacted the flow of duty at the clinic.

Section 5: Dissemination Plan

The findings of this DNP project will be initially presented to the supervising medical director at the pediatric clinic. Then I will ask for approval to share the project findings with the NPs, RN, and medical assistants to motivate them on the benefits of using the standardized educational materials, which include the STD-KQ questionnaires, Sexual Health STI guideline by the AAP, and the 2015 STD Treatment Guideline by the CDC as their office assessment protocols. The Maryland Department of Health (2019) stipulated the importance of recognizing individuals with or without symptoms associated with an STI/STD. The DNP project will stand as an evidence-based resource for improving care within the pediatric populace, thereby promoting successful diagnosis, treatment, and follow up those infected with an STI/STD (MDH, 2019).

The DNP project findings will be shared within the Walden University ProQuest library database according to the stipulation of the university's educational provision. I will also share the findings with other pediatric clinics outside the community where the pediatric clinic is located to promote evidence-based practice implementation of the project to other healthcare systems. I will apply to present a poster presentation of the findings at the Sigma Theta Tau conference and a state conference, such as the Nurse Practitioners Association of Maryland (NAPM), to promote implementation of the project to clinical practice. Another opportunity for disseminating the project findings is to submit the abstract of the DNP project paper to the AANP annual conference for selection and presentation.

Publishing the findings of the QI project is a good means to create a positive awareness of STI/STD management and staff compliance to the guideline. Roberts and Radford (2020) expressed that QI projects are very beneficial for the improvement of care in the healthcare community. They suggested to review the Standards for Quality Improvement Reporting Excellence (SQUIRE) as a guideline for publication of QI projects (Roberts & Radford, 2020). Submitting a manuscript for consideration for publication in an education journal such as the National Nurse Practitioner Entrepreneur Network (NNPEN) will provide the avenue to dissimilate the QI project to care provider to use in their various practices.

Analysis of Self

Practitioner

Throughout the completion of the DNP project, I have learned about sexually transmitted diseases, the global initiative, and expectations of care providers, especially regarding the adolescent population. As a practitioner practicing in an outpatient clinic, I have found that a continuous assessment of the adolescent population and adherence to the Adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC for the screening, treatment and education of STDs/STIs is very valuable and essential in standard practice. The consistency of the NPs to adhere to the standard of practice will improve care provided to the adolescent population to ensure they receive quality care. As a practitioner, I am challenged to develop quality improvement projects to enhance patient care and improve outcomes.

Scholar

The project has enhanced my professional skills in writing and synthesizing literature, which has facilitated the completion of this academic work. The DNP project will promote the advancement of my academic progress in my profession through literature research conducted through the Walden university library. Further, implementing the project has expanded my knowledge on sexually transmitted diseases/infection and their effect in the adolescent population. According to Simón and Ferreiro, (2018) research is a tool to bridge the knowledge gap in practice to enhance practice change in the community. The DNP project has enhanced my ability to find practical ways to improve practitioners' compliance in carrying out the professional responsibilities within care guidelines in practice, thereby providing an improved care continuum for the pediatric population.

Project Manager

The function of a project manager role is to facilitate and manage a given task. During the planning and implementation of the DNP project, I have gained great insight in supervising a QI project to its completion. I have learned to use a nursing framework, such as the PDSA, to investigate a nursing problem. This nursing framework guided the DNP project from the planning phase through to the implementation phase. As a result, I was able to collaborate with other NPs in the clinic to improve evidence-based nursing outcomes for the adolescents. According to the Institute of Medicine and the National Research Council of the National Academies statement published in the essential of doctoral education for advanced nursing (2006), "demands that nursing education should

prepare scholars to become patient safety experts in practice, involving interdisciplinary, information systems, and quality improvement in their practice roles" (p.6).

Summary

The DNP project was a guide to standardizing practice protocol for the assessment and management of an adolescent's sexual health care. The project has helped to strengthen the importance of NP adherence to the Adolescent Sexual Health STI guideline by the AAP and the 2015 STD Treatment Guideline by the CDC in creating awareness of the adolescents about STIs/STDs. The guideline was originally intended to reduce sexually transmitted disease amongst the adolescent population globally. The result of this project confirms that consistent assessment of the adolescent population using the STD-KQ questionnaire helps in creating patient centered education about STIs/STDs. The findings of the DNP project showed that there was a gap in knowledge about STIs/STDs amongst the adolescent patients, and thereby urged the NPs to close the gap in their daily care protocol. The DNP project will help to standardize care in sexual transmitted disease awareness amongst adolescent 13-18 years at the clinic, thereby promoting evidence-based practice in patient care.

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Appendix A: The Adolescent Sexual Health STI Guideline by AAP

This policy statements focuses on the subtitles which includes Adolescent right to Confidentiality of care, Contraception, Delivery of care, General, HIV and Pregnancy (American Academy of Pediatrics, 2022). For the purpose of this doctoral project, insights were drawn from the subtitle general that comprises of male adolescent sexual and reproductive health care, menstruation in girls and adolescents' menstrual management for adolescent with disability, sexual and reproductive health care services in the pediatric setting, and sexuality education for children and adolescents.

However, the American Academy of Pediatrics (AAP) suggests regular laboratory testing for nonviral such as chlamydia, gonorrhea for all sexually active male, female adolescents and young adults (≤25 years), and annually for C trachomatis annually (AAP, 2022). The education of children and adolescents on healthy about sexual behavior were optimizes to avert behaviors that lead to unplanned pregnancy and sexually transmitted infections (STIs), comprising "gonorrhea, *Chlamydia*, syphilis, hepatitis, herpes, human papilloma virus (HPV); HIV infection; and AIDS" (Breuner, and Mattson, 2016).

Appendix B: 2015 STD Treatment Guideline by CDC

This policy recommendation was based on the Sexually transmitted Disease Treatment Guideline, 2015 which was intended for healthcare providers for medical management in treatment, prevention tactics and diagnostic references based the main five preventive guidance (Workowski et al., 2021).

Accurate risk assessment and education and counseling of persons at risk regarding ways to avoid STIs through changes in sexual behaviors and use of recommended prevention services

Pre-exposure vaccination for vaccine preventable STIs

Identification of persons with an asymptomatic infection and persons with symptoms associated with an STI

Effective diagnosis, treatment, counseling, and follow-up of persons who are infected with an STI

Evaluation, treatment, and counseling of sex partners of persons who are infected with an STI (Workowski et al., 2021).