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Effect of an Educational Intervention for Prevention of STD in Minority Women

Umparrys L. Witherspoon
Valparaiso University

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**EFFECT OF AN EDUCATIONAL INTERVENTION
FOR PREVENTION OF STD IN MINORITY WOMEN**

by

UMPARRYS L. WITHERSPOON RN, BSN

EVIDENCE-BASED PRACTICE PROJECT REPORT

Submitted to the College of Nursing and Health Professions

of Valparaiso University,

Valparaiso, Indiana

in partial fulfillment of the requirements

For the degree of

DOCTOR OF NURSING PRACTICE

2016

umparrys l. witherspoon
Student

3/11/16
Date

[Signature]
Advisor

[Signature]
Date

5/9/16
Date

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2016

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DEDICATION

I would like to thank God, for without him, this would not be possible. I dedicate this project to my loving husband Kevin, and my three children Kevin Jr, Kori, and Kaniz. Thank you Kevin, for your direction, support, and encouragement during those times I thought I could not make it. Thank you my love for stepping in and helping me to run the household and manage kids. Thank you to my son, Kevin Jr., a young man of few words, but his smile always lets me know that he was behind me 100%. Thank you to my girls, Kori and Kaniz, they saw in me that which I could not see in myself. I would like to thank my MeMe, who was always offering to do anything to help her baby along the way. To my two grandmas Irma, and Juanita, who are 91 and 88 years old, I am truly blessed to have them in my life as they are able to see me complete this journey! My brother, Norman, I love you man! My BFF Kesha, who was always a phone call away to listen to me and offer advice, I love you! To the rest of my extended family, please forgive me for my absence over the past three years, I promise to make up for time lost. I love you all!

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PREFACE

I can do all things through Christ who strengthens me. Philippians 4:13

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ABSTRACT

Historically, African Americans and Hispanics in the United States have been disproportionately affected by human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs), as compared with non-Hispanic whites. Females continue to outnumber males with these diagnoses. Women are generally at greater risk of acquiring HIV and other STDs than men because the female genital tract is more prone to injury and infection resulting from high-risk heterosexual contact (Crepaz et al., 2009). The purpose of the evidence based project was to implement and evaluate an educational intervention for the prevention of HIV and STDs. The Health Belief Model (HBM) was used as the theoretical foundation, along with a systematic approach to establish an educational intervention for STD prevention. This program was introduced to a federally qualified health clinic located in Northwest Indiana. To determine if the program was effective, participants were given a pre-intervention survey that measured STD knowledge, attitude toward condom use, and sexual assertiveness. An educational intervention was provided immediately after the survey, and a post-intervention survey was given 10 weeks later. Paired samples *t* tests were calculated to compare the mean pre-intervention total score to the mean post-intervention total score. The mean pre-intervention score was 2.35 (*SD* = 0.44), and the mean post-intervention score was 2.56 (*SD* = 0.27). An increase in knowledge occurred as evidenced by the higher mean post-intervention score. However, the difference between pre-intervention and post-intervention scores of knowledge were not statistically significant ($t(7) = -1.407, p > .05$). Results demonstrated that brief STD educational programs can be beneficial in this population. This project is being considered as part of an ongoing educational series in the clinic.

CHAPTER 1

INTRODUCTION

Evidence-based practice (EBP) is known as the problem-solving approach to the delivery of care that incorporates the best evidence from well-designed studies in combination with clinicians' expertise and patients' preferences within a context of caring (Melnyk & Fineout-Overholt, 2011). The objective of this EBP project was to determine the best practice for an educational intervention for the prevention of sexually transmitted disease (STD) in minority women. To make a transformation within an existing clinic, the project manager must establish a relationship with the providers and the clients for whom care is provided. The project manager conducted a broad search of literature to determine whether or not the need existed for EBP and an educational intervention for the prevention of STD in adult minority women. A framework, which consisted of nursing theory and EBP model, was formed to help guide and support this project. This chapter will provide brief discussion of the background, statement of the problem, and definition of the purpose and significance of the EBP project.

Background

Historically, African Americans and Hispanics in the United States have been disproportionately affected by Human Immunodeficiency Virus (HIV) and other sexually transmitted diseases (STDs), compared with non-Hispanic whites. In 2010, African Americans represented 12% of the U.S. population, but they accounted for 44% of all new diagnoses of HIV infection; Hispanics accounted for 16% of the U. S. population but they represented 21% of all new diagnoses (CDC, 2013). As of 2013, there were 1,401,906 cases of chlamydia, 333,004 cases of gonorrhea, and 17,375 cases of syphilis in the United States recorded in a surveillance report (CDC, 2013). Black women make up 1491.7 per 100,000 cases for chlamydia, 492 per

100,000 for gonorrhea; Hispanics are 564.2 per 100,000 cases for chlamydia, 69.2 per 100,000 for gonorrhea cases.

According to Indiana State surveillance reports, in 2012, Chlamydia continued to be the most frequently reported sexually transmitted disease (STD) in Indiana, with 29,505 reported cases. The majority of cases identified as White (42.6%) and Black (35.3%). Gonorrhea cases in 2012 were reported at 7,338 cases. The majority of cases identified as Black (55.7%) and White (28.3%). Primary and secondary syphilis was reported to be 224 cases in 2012. The majority of cases identified as Black (49.1%) and White (43.8%). Females continued to outnumber males for both Chlamydia and gonorrhea while syphilis is more prevalent among males. In February 2015, the Indiana State Department of Health confirmed 26 cases, and four preliminary HIV positive cases since mid-December 2014. Since that time, as of June 19, 2015, state health officials announced that the number of HIV cases in the Southeastern Indiana outbreak is 170 cases (Indiana Department of Health, 2015).

In 2013, the Lake County, Indiana Health department tracked 2,084 cases of chlamydia, 544 cases of gonorrhea, and 20 cases of syphilis in minority women. From January 1, 2015 to December 31, 2015, there was a total of 47 new cases of HIV/AIDS reported for this area with a total number of 1,150 people living with these diseases (Indiana Department of Health, 2016). These are large numbers, considering that the most current population count of people in 2015 for Lake County, Indiana was 490,228.

STDs can lead to pelvic inflammatory disease, chronic pelvic pain, infertility, cervical and oropharyngeal cancer among women, epididymitis, urethritis, and oropharyngeal cancer in men (CDC, 2013). STDs account for \$16 billion of medical costs per year. According to the CDC, there are 20 million new cases of STD per year. The highest rates of STDs are found among African Americans. Physical changes caused by STDs can serve as entry points for HIV and

can increase one's chance of acquiring HIV. Women are generally at greater risk of acquiring HIV and other STDs than are men because the female genital tract is more prone to injury and infection resulting from high-risk heterosexual contact (Crepaz et al., 2009).

The literature supported interventions tailored to minority women because of the cultural underpinnings that exists within this community. Historically, Blacks have a pattern of indirect communication which was established during slavery because direct interactions were prohibited. This pattern of communication makes problem-solving and conflict resolution difficult because these communication skills are necessary for revealing feelings, intentions, and above all asserting oneself sexually (Jenkins & Kennedy, 2013).

Statement of the Problem

Current evidence suggests a positive impact on sexual health behaviors when a comprehensive curriculum is introduced to minority women (LaFevre, 2014). The women's center within a community health clinic was the ideal setting to introduce an educational intervention program. Staff at the clinic where this project was implemented acknowledged the need for women to be educated about sexual health. Current practice at the clinic involved women coming in for routine visits who were diagnosed by chance or if they felt they may have had a gynecological problem. The client typically has a urine screen for STD or pelvic exam with wet mount. After testing positive, the client is prescribed the recommended treatment according to guidelines and instructed that her partner should also go to the local health department for treatment. A comprehensive educational sexual health program needs to be provided to all clients within the clinic.

Purpose of the EBP project

There are several programs that have provided successful educational efforts for minority women within federally qualified health centers (FQHCs). In an effort to provide

primary prevention education at the community level, this EBP project was implemented within the women's center of a community health clinic. The project manager believed that by implementing an educational behavioral program for the prevention of STD in this clinic, it would increase clients' knowledge of STDs, improve condom usage, and increase sexual assertiveness.

Compelling clinical question. This EBP project aimed to answer the compelling clinical question: In minority women, ages 18 to 40 serviced at a Federally Qualified Health Center (FQHC), what is the effect of educational intervention when compared to no educational intervention for the prevention of Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases/Infections (STDs) over a 10-week period?

PICOT format. The PICOT format was used to formulate this clinical question for this EBP project. This format involved the identification of the population of interest (P), intervention of interest (I), comparison of interest (C), outcome of interest (O), and (T) time as demonstrated by:

P- The targeted population of interest for this intervention was non-pregnant minority women ages 18-40, who seek health services within an FQHC located in a Midwestern city. All participants had to be English-speakers. Minority women were chosen because literature supports they are at an increased risk for STDs because of health disparities (Carey et al., 2010).

I- The intervention of interest was an evidence-based sexual health education program. The sexual-health program consists of face-to-face group session that would be held during office hours. During the program, subjects would be shown condom usage procedures, brochures, video presentation, and participate in role play.

C- The comparison of interest is no educational intervention compared to an educational intervention.

O- The outcome would be increased knowledge of STDs, attitude toward condom use, and sexual assertiveness from the intervention to aid in the prevention of STDs.

T-The time frame for the educational intervention would be approximately 10 weeks.

Literature supports a time period of 1 to 3 months for intervention effectiveness.

Significance of Project

The goal of this EBP project was to provide a framework to institute further sexual health educational programs within the community health setting. This EBP project supports that educational programs can be an effective strategy in preventing STDs. If STD knowledge is increased, it is hoped that self-efficacy, and sexual assertiveness regarding sexual health would increase, thus increasing safe-sex practices and condom usage. It was anticipated that this EBP project would be successful, warranting a change in the current educational programs within the clinic. This EBP project supported the ideology that risk reduction interventions for minority women should be gender and culture-specific. These interventions may contribute to reducing the spread of STDs including HIV in minority women.

CHAPTER 2

THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

This chapter addressed the theoretical contexts, which guided this project. The Health Belief Model (HBM) and the ACE Star model will be discussed at length within this section. The PICOT question, which is supported by these theories, is as follows: In minority women, ages 18 to 40 serviced at a Federally Qualified Health Center (FQHC), what is the effect of an educational intervention when compared to no educational intervention for the prevention of Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases (STDs) over a 10-week period? Also within this chapter, the literature search strategy will be explored. Identification of search engines, key words, inclusion criteria, and exclusion criteria will also be included. The appraisal of relevant evidence will be described, and finally there will be a summary of the evidence, which assists in providing a best practice model recommendation.

Description of HBM. This project manager chose the Health Belief Model (HBM), which is considered to be one of the first theories of health behavior. It was developed in the 1950s by a group of U.S. Public Health Service social psychologists that wanted to explain why so few people were participating in programs to prevent and detect disease. This particular model serves to explain individual preferences in preventive health behavior. According to Glanz, Rimer, and Viswanath (2008) the model postulates that health-seeking behavior is influenced by a person's perception of a threat posed by a health problem and the value associated with actions aimed at reducing the threat. Despite it being referred to as a model, HBM covers all the aspects of a behavioural theory. HBM through various tests and experimentation has expanded through borrowing from other models which have strengthened its explanatory and predictive potential. The health belief model has been applied to predict a wide variety of health-related behaviors such as being screened for the early detection of asymptomatic

diseases and receiving immunizations (Polit and Beck, 2012). The model has been applied to understand patients' responses to symptoms of disease, compliance with medical regimens, lifestyle behaviors (e.g., sexual risk behaviors), and behaviors related to chronic illnesses, which may require long-term behavior maintenance in addition to initial behavior change (Glanz, Rimer, Viswanath, 2008).

There were amendments made to the model as late as 1988 to incorporate emerging evidence within the field of psychology about the role of self-efficacy in decision-making and behavior (Polit and Beck, 2012). According to Glanz, Rimer, and Viswanath (2008) the HBM hypothesizes that AIDS and STD protective behavior decisions are a function of perceived risk of contracting the disease, perceived severity of the disease, and perceptions of benefits and barriers to AIDS and STD protective behaviors. The Health Belief Model was chosen because it can be used in primary prevention for the modification of behavior to assist in STD prevention.

The Health Belief Model is a supporting component of this project because individuals may relate to the perceived susceptibility aspect, as sexual assertiveness can be linked to this component. The belief that one is at low risk of developing an illness is more likely to engage in unhealthy, or risky, behaviors. Whereas, individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviors to decrease their risk of developing the condition. The same can be said of sexual assertiveness, the higher the sexual assertiveness or communication skills of a woman, the more likely she will use a condom, thus preventing an STD. The lower the sexual assertiveness, the more likely she will engage in risky behavior and not use condoms. Several components form the foundation of the HBM. According to Polit and Beck (2012) these components include perceived susceptibility, perceived severity, perceived benefits and costs, motivation, enabling or

modifying factors, and self-efficacy. These concepts form a solid foundation and demonstrates how each intertwines with behavior. Each one of these components will be described below.

Perceived susceptibility refers to subjective assessment of risk of developing a health problem (Glanz, Riner, and Viswanath, 2008). At times, there may be a group of individuals who completely deny that there is a possibility of them acquiring a serious disease based on their individual behaviours. There may also be group of individuals who admit there is possibility of acquiring a certain disease but they do believe it can happen to them. At the end of the spectrum, there are groups that are afraid of contracting the disease, and admit the belief that there is the chance of acquiring it. When a person feels he or she is highly susceptible, then there is greater likelihood that the person becomes careful of taking measures to prevent the disease. The health belief model predicts that individuals who perceive that they are susceptible to a particular health problem will engage in behaviors to reduce their risk of developing the health problem. Individuals with low perceived susceptibility may deny that they are at risk for contracting a particular illness. Others may acknowledge the possibility that they could develop the illness, but believe it is unlikely. Individuals who believe they are at low risk of developing an illness are more likely to engage in unhealthy, or risky behaviors. Whereas, individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviors to decrease their risk of developing the condition (Montaro & Bryan, 2014).

Glanz, Riner, and Viswanath (2008) state that perceived severity refers to subjective assessment of the severity of a health problem and its potential consequences. The individual's subjective belief is the extent of harm which can be as a result of the harmful state or the disease due to personal behaviour. The health belief model proposes that individuals who perceive a given health problem as serious are more likely to engage in behaviors to prevent

the health problem from occurring (or reduce its severity). Perceived seriousness encompasses beliefs about the disease itself (e.g., whether it is life-threatening or may cause disability or pain) as well as broader impacts of the disease on functioning in work and social roles (Polit and Beck, 2012).

Health-related behaviors are also influenced by the perceived benefits of taking action. Perceived benefits refer to an individual's assessment of the value or efficacy of engaging in a health-promoting behavior to decrease risk of disease (Polit and Beck, 2012). This is also seen as the belief in the advantages which have been suggested as helpful in reducing the seriousness and risk of the disease or harmful state of a particular behaviour. This availability of alternatives plays a vital role in shaping an individual's actions. If an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in that behavior regardless of objective facts regarding the effectiveness of the action (Montaro and Bryan, 2014).

The potential negative aspects of a particular health action are known as perceived barriers which may act as impediments to undertaking recommended behaviors (Glanz, Riner, Viswanathan, 2008). This belief is related to the imagined and actual costs of a new behaviour. This occurs when a person's belief that by adopting a new behaviour will be helpful in reducing the perceived severity and susceptibility of a harmful condition or disease but the person may consider the action to be unpleasant, inconvenient, upsetting, painful and even expensive.

Motivation or cues to action are triggers necessary for prompting engagement in health-promoting behaviors. They are essentially those things that prompt us to action (Glanz, Riner, and Viswanath, 2008). Cues to action can be internal or external. Physiological cues (e.g., pain, symptoms) are an example of internal cues to action. External cues include events or

information from close others, the media, or health care providers promoting engagement in health-related behaviors.

Self-efficacy refers to the level of a person's confidence in his or her ability to successfully perform a behavior. This construct was added to the model most recently in mid-1980 (Montaro and Bryan, 2014). Self-efficacy means the confidence which a person has concerning his or her individual ability to adopt a positive behaviour. This behaviour has to be practiced at the present and not to be referred to in the future or past. Self-efficacy is a construct in many behavioral theories as it directly relates to whether a person performs the desired behavior. Confidence in one's ability to effect change in outcomes (i.e., self-efficacy) is a key component of health behavior change.

Application of the HBM. According to Zak-Place and Stern (2004) the HBM proposes that when a person is confronted with a health threat, two cognitive processes are initiated: threat appraisal and coping appraisal. These cognitive processes separate each of the HBM constructs into two parts. Threat appraisal encompasses perceived severity, vulnerability and susceptibility to threat, whereas coping appraisal includes efficacy, cost, and barriers related to the response. Brouse (2006) states the HBM is useful for the practitioner to establish the client's perception of risk and implications for her sexual behavior. It is imperative that the practitioner initiates a discussion with the client to identify her educational needs in developing a realistic understanding of risk factors associated with STDs. In this context, the project manager will discuss the efficacy of condoms in the prevention of STDs. The project manager should demonstrate the use of condoms and ensure that the client feels confident in the practical use of condoms by allowing her time to practice the correct application of condoms.

Each of the constructs will be applied within the EBP project: a) perceived susceptibility, b) perceived severity, c) perceived benefits, d) perceived barriers, e) cues to action, and f) self-

efficacy. Within this EBP project, the perceived susceptibility was addressed by discussing whether the women believed they could contract HIV or an STD. Within this discussion, the women were educated on the statistics of STDs in Lake County, Indiana and how they could lead to other associated illnesses such as pelvic inflammatory disease or even cancer. Perceived benefits would be applicable when subjects are shown the proper way to use condoms that have stimulatory features in order for sex to be more pleasurable. Perceived barriers for some clients may be the lack of funds to buy condoms, lack of intimacy, or even their partner's refusal to use condoms. The intervention would arm subjects with communication skills for negotiating condom usage with partners. Cues to action will involve giving the women condoms, lubricants, and literature reinforcing concepts about safe sex. The subjects will be allowed time during the interventional session to role play which will enhance communication skills. Negotiation skills will be accomplished through the viewing of a relationship video to help with self-efficacy and condom usage and also enhance subject's communication skills with their partners. Negotiation skills will be further enhanced through the role play session that is structured into the program.

Strengths and limitations of the HBM. For perceived susceptibility to be an agent of behavior change, participants need to believe that contracting an STD or HIV is a likely consequence of unprotected sex. Perceived severity will include a discussion of why the subject may or may not feel that she is at risk for contracting an STD. Perceived benefits of condom use should also be highlighted. Statistics should emphasize condom effectiveness in preventing disease. Effective communication with a partner is also encouraged for successful negotiation of condom use. Conversely, a weakness or cost of this model may be the decreased sensation during intercourse when using a condom, which can be viewed as perceived barriers.

The HBM is the ideal model for this project, because clients would be encouraged to work proactively in preventing STD through modifying their behaviors through communication with partners and improving self-efficacy with condom usage. This educational intervention will help to increase attitude toward condom usage, STD knowledge, and sexual assertiveness. The project manager recognizes that there is a need in the adult minority female population for education on STD prevention. According to the literature, current evidence suggests a positive impact on sexual health when a comprehensive curriculum is introduced to minority women. There are several programs that have provided successful educational efforts within FQHCs. In an effort to provide primary prevention implementing a behavioral intervention program is very necessary for a minority population.

There are barriers that exist within this culture of women that includes finances, education, and power within relationships. The pattern of communication makes problem-solving and conflict resolution very difficult because minority women tend to communicate in generalities (Jenkins and Kennedy 2013). Communication skills are necessary for women to exchange their feelings, affects, and intentions. Black women have been the protector of Black men because of their experiences of abuse during slavery which includes lynching, beatings, and rape of their wives and daughters. This obligatory feeling of having to protect the Black man still resounds if not even more so in today's society. Jenkins and Kennedy (2013) state that Black women are socialized to be acceptance of abuse in their relationships, in addition, to the lack of sexual assertiveness when confronted with condom negotiation in protecting themselves against HIV and STDs. Another limitation according to Brouse (2006) is that as the client appraises the social and cultural factors that shapes her health behavior, she many have to confront the reality of social and economic powerlessness with regard to factors such as access to services and information as well as the capability to buy or acquire contraceptives. The underpinnings of the

HBM will allow the project manager to address individual perceptions within the behavioral intervention to encourage lifestyle changes.

Evidence-Based Framework: The ACE Star Model

One must understand the nature of knowledge and knowledge transformation necessary for use and relevance in clinical decision making. Rather than having clinicians submersed in the volume of research reports, a more efficient approach is for the clinician to access a summary of all that is known on the topic. Ultimately, quality improvement of healthcare processes and outcomes is the goal of knowledge transformation. The Academic Center for Evidence Based Practice Model, more commonly known as the ACE Star model, was developed in 2000 at the University of Texas, San Antonio. It is based upon Imogene King's Theory of Goal Attainment, because it has been theorized that nursing is a goal directed discipline and nurses help patients to attain their goals (Stevens, 2002). The project manager feels this model is appropriate because subjects will be introduced to behavioral interventions that will aid in the prevention of STDs. The model includes 5 points on a star that illustrates knowledge transformation. These points on the star include: original research or discovery, evidence summary (currently named summary), translation, implementation (currently renamed integration), and evaluation (Stevens, 2002).

According to Kring (2008) The ACE Star Model of Knowledge Transformation is one organizing framework for understanding knowledge transformation that occurs in an EBP paradigm. Knowledge transformation is "the conversion of research findings from primary research results, through a series of stages and forms, to impact on health outcomes by way of evidence-based care". Knowledge transformation is the conversion of research findings from primary research results, through a series of stages and forms, to impact health outcomes by way of evidence-based care. In other words, learners go from one point on the star to the next

point using aspects of EBP; but to advance to the next point, depends upon the form of knowledge and the stage of transformation. This model was developed to offer a simple approach to translate evidence into practice. One must understand the nature of knowledge and knowledge transformation necessary for use and relevance in clinical decision making. Rather than having clinicians submersed in the volume of research reports, a more efficient approach is for the clinician to access a summary of all that is known on the topic. Likewise, rather than requiring frontline providers to master the technical expertise needed in scientific critique, their point-of-care decisions are better supported by evidence-based recommendations in the form of clinical practice guidelines. Ultimately, quality improvement of healthcare processes and outcomes are the goals of knowledge transformation (Melnyk & Fineout-Overholt, 2011). The five points to the Star Model are as follows:

Discovery: Kring (2008) states this is a knowledge-generating phase and is characterized by traditional research activities. New nursing knowledge is discovered and reported in scientific journals for critique within the discipline. Studies are replicated to add support to new understandings of nursing phenomenon. The clinician is open to new ideas and is getting to embark upon new ideas that are pertinent to practice. For instance, an advanced practice nurse may observe an aspect of patient care that will improve patient flow in a clinic. It is at this time, the nurse begins the research process and how a change may improve practice for better patient outcomes. It is imperative that the advanced practice nurse recognize the deficits that may exist within an organization. Acknowledging that there are gaps in care of a patient population allows for the APN to intervene and begin researching literature that addresses the gap in care.

Summary: Research findings are summarized into a concise, usable statement.

Through a rigorous process for systematic review, the results of multiple studies are synthesized into one statement of evidence. Sometimes, a meta-analysis in which the sample sizes and outcomes are merged into one summary statistic is done, thereby adding power and diminishing bias. This step helps the clinician from being overwhelmed by too much information (Kring, 2008). The APN gathers all the data that is pertinent to the project and organizes it into central themes that will be conducive to implementation of the project.

Translation: Evidence is transformed into a document that the clinician can use to guide practice, such as a clinical practice guideline. The strongest level of evidence indicates that a systematic review of randomized controlled trials has been conducted to verify the evidence used to develop the guideline. The lowest level of evidence indicates that expert opinion was used to form a particular recommendation, and no scientific studies have confirmed the practice (Kring, 2008).

Integration: This is the phase in which the guideline becomes part of the organization. Sometimes it can be difficult to integrate new processes into the existing culture. There has to be practice changes within all levels of the organizational culture for the new innovation to be adopted. Integration requires that the project manager establish a relationship with all those that will be a part of the process change. This means that ancillary staff should be made aware of the changes that will affect their job roles which will aid in the transition of change.

Evaluation: This phase requires the identification and measurement of meaningful end points to ensure safe, quality care. Areas addressed within this phase include clinical parameters, patient satisfaction, efficacy, efficiency, and economic impact.

The project manager should be able to reflect on those techniques that aided in the change of policy or care and those items that may have hindered the process of change.

Application of the ACE Star Model. The project manager will remain consistent with achieving the goal of the ACE Star Model. The project manager plans to increase patient outcomes with the acceptance of STD prevention through a behavioral intervention. In doing so, this change will aid in improving patient care.

Discovery. The project manager will enlist the aid of the university's computer database to research information regarding STD prevention through behavioral interventions. Once the generalized need for EBP is determined, the project manager will continue the literature search to identify a more specific need. Focus will be placed on adult minority women with a need for a behavioral intervention for STD prevention. By using multiple databases, the project manager will be able to observe evidence that would firmly support this project. During this phase, the project manager with the assistance of the university librarian will conduct a broad search to determine whether or not the need exists for EBP for behavioral intervention for the prevention of STD in adult minority women.

Summary. This project manager determined needed alterations for the proposed EBP project once an analysis of findings with their limitations were summarized. This summary phase worked to synthesize data and create evidence for behavioral education for minority women. Inclusion and exclusion criteria were established to finalize the narrowing of literature. The project manager discovered central themes within the literature that would assist in

development of the project. The central themes the project manager identified were communication skills in sexual assertiveness, condom usage, and STD knowledge.

Translation. Once the literature search had been conducted and synthesized, the project manager used the evidence to develop the following guideline: an educational intervention for adult minority women at an FQHC. Common themes were drawn from the literature to help establish an appropriate educational intervention to yield significant results. Brief single session group interventions will be the chosen mode of educational delivery. The literature supported the use of single session interventions within the community health setting.

Integration. After the educational program was developed, it was implemented to measure whether or not the desired outcomes of increased STD knowledge, attitude toward condom use, and sexual assertiveness were accomplished. Current evidence supports an ongoing educational intervention in the minority community. The staff within the women's clinic will be included in the project by educating them on how the project will improve patient care. The project manager will implement this educational program into an ongoing series of educational interventions held in the clinic on a quarterly basis, or even as a lunch and learn mode of education delivery.

Evaluation. The educational intervention program for the prevention of STD will be evaluated to determine outcomes as well as any changes that would benefit the program. The project manager assessed the project for patient health outcomes, satisfaction of both provider and patient, efficacy, efficiency, and economic impact. For efficiency and efficacy, the project manager utilized a

meeting room that would not interrupt with the provider's day to day activities. Participants will be given an honorarium of ten dollars at the beginning of the project and upon completion of the project. The project will be held over a 10-week time span in order for the project manager to gather participants the first week. Participants then will return to the clinic and fill out demographic information and pre-tests prior to the intervention. Patient health outcomes will be measured with a modified combined questionnaire that includes the Sexually Transmitted Disease Knowledge Questionnaire, the Sexual Risks Scale (Attitude toward Condom Use), and the STD prevention sphere of the Sexual Assertiveness Scale. Post-tests will be administered approximately 10 weeks after the intervention.

Strengths and limitations of the ACE Star model. As with any theoretical model, there are strengths and limitations associated in their use. The ACE Star model is felt to be appropriate for use in this clinic because the women's health area is under the direct supervision of an advanced practice nurse. Each phase allowed the project manager to move efficiently on to the next stage. The first stage caused the project manager to re-evaluate the aims of the project. There were different aspects in the clinic that could have been addressed, such as compliance with follow up appointments, or even completion of medication. However, the project manager understood the need for an STD educational intervention program within this clinic. If patients are made aware of the potential complications involved with STD transmission, then the other mentioned potential issues could be reduced. Educational interventions serve an important role in the prevention of STDs. The project manager completed an ob-gyn rotation within this clinic, and while there it was observed that clients would come in routinely for STD screenings. Wet mounts or urine screenings were performed and once results

were obtained, the clients are given a course of treatment. Clients were also informed that their partners should be treated at the local health department. The project manager wanted to focus on increasing sexual assertiveness, but it was found in the literature that this construct was just one of several concepts that needed to be addressed to complete an effective project. Thus, the project manager restructured the EBP project to establish an educational intervention program that would aid in the prevention of STDs through an increase of STD knowledge, attitude toward condom use, and sexual assertiveness.

Review of Literature

Once the project manager created a PICOT question, the next phase of the project was initiated. The PICOT is as follows: In minority women, ages 18 to 40, serviced at a Federally Qualified Health Center (FQHC), what is the effect of an educational intervention when compared to no educational intervention for the prevention of Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases (STDs) over a 10-week period? This educational intervention is based upon the constructs of the *Sister to Sister*[™] educational program, which is designed to educate minority women and arm them with information to increase their knowledge of STDs, use of condoms, and sexual assertiveness. Participants will be given correct information regarding HIV and STDs along with statistical information in their community. Negotiation skills will be taught through role play and the use of educational video. The project manager will assist the participants in identifying their feelings about using condoms. These strategies will help to build self-efficacy through practice, reinforcement, and providing constructive supportive feedback. According to the ACE Star Model, one must engage in original research and discovery. This was accomplished through a comprehensive literature search. The project manager will discuss the literature search process including search engines and keywords, identification of inclusion and exclusion criteria, classification of evidence into

levels according to the strength of literature, and finally, there will be an appraisal of selected literature in the sections to follow.

Search engines and keywords. A review of literature was conducted by use of a university's online databases and citation chasing. A search was done to determine whether or not best practice already exists in educational intervention for the prevention of STDs. Searches within Joanna Briggs Institute did not result in any current EBP guidelines or systematic reviews that were beneficial to this project. However, there were 2 systematic reviews retrieved through the Cochrane Library. The project manager then proceeded to search within the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline via EBSCO, ProQuest Nursing and Allied Health Source, and lastly, Health Source: Nursing/Academic Edition. Interlibrary loan provided by the university was also utilized to retrieve articles that were not available in full text. Keywords used within the literature search were as follows: "sexually transmitted diseases" separated by Boolean operator OR "sexually transmitted infection*" and "behavioral interventions". Keywords were searched within peer-reviewed journal articles in CINAHL, Cochrane, ProQuest, Health Source, and Medline. Citation chasing was also used to retrieve relevant studies.

Inclusion and exclusion criteria. The search results were narrowed to determine the pertinence of the literature for the proposed best practice question. Inclusion criteria requirements were narrowed to ensure appropriate material could be found within the literature. Literature results must be comprised of the following criteria: a) peer-reviewed, b) published in English language from 2008 to 2015, c) population focus on females, d) scholarly journals, and e) geographic location of the United States. The project manager did not include the target population because the searches included this population in many of the studies. After criteria were established, abstracts were reviewed for their potential use within the literature review. A

manual search of the reference lists of the literature reviewed was performed by the project manager from the articles retrieved in ProQuest. Fifteen references were identified for potential inclusion and the full texts were printed and reviewed in detail. One additional reference was included despite not meeting the inclusion criteria as it was recurrently identified within the manual search and was noted to be classic, foundational research, offering much insight to the population of this specific EBP project. Of these 16 articles, 11 were included in the final literature review based upon the developed inclusion and exclusion criteria. These articles were then analyzed and critically appraised. Articles were excluded if they included pregnant women, non-minority women, and women who were incarcerated.

Levels of evidence. The project manager utilized Melnyk and Fineout-Overholt's (2011) text to assess and rate the selected articles. The hierarchy of evidence has seven separate levels. These levels of evidence range from I, the highest level of evidence, to VII, the lowest level of evidence. These levels of evidence are reflected in Table 1.1, which provides summaries of author(s), date and level of evidence. This system assigns levels to literature according to the strength of the study. Level I evidence is derived from a systematic review or meta-analysis of all random controlled trials. Level II rating is for evidence obtained from well-designed randomized control trials (RCTs), Level III is evidence from well-designed non-randomized control trials, Level IV is evidence from well-designed case control and cohort studies, and Level V evidence is from systematic reviews of descriptive and qualitative studies. Level VI is evidence from a single descriptive or qualitative study and Level VII is evidence from expert opinion or reports from expert committees (Melnyk & Fineout-Overholt, 2011). The literature, which provided the supportive evidence for this project, included five articles that were Level I evidence, four articles that were Level II evidence, one article that was Level V evidence, and one article that was Level VI evidence.

Appraisal of relevant evidence. Melnyk and Fineout-Overholt's (2011) rapid critical appraisal checklists were used to evaluate each article. The literature will be appraised for validity, reliability, and applicability. The project manager will then assign a rating of very strong, strong, moderate or weak. The five Level I articles were reviewed utilizing the rapid critical appraisal checklist for systematic reviews of clinical intervention studies, the one clinical guideline was also reviewed with the rapid critical appraisal (Melnyk & Fineout-Overholt, 2011). There were three Level II evidence reviewed utilizing Melnyk and Fineout-Overholt's (2011) rapid critical appraisal checklist for randomized control trials. Finally, the qualitative evidence checklist was used for the level V study. The rapid critical appraisal was also used for the two Level VI descriptive studies. Once the project manager appraised the evidence, it was then approved to be included in the project for support of the proposed EBP intervention. Levels of evidence are included in Table 2.1. A summary of evidence for each article is included within Appendix A.

Table 2.1 Levels of Evidence

Author (s)	Level of Evidence	Database
Carey et al. (2010)	II	CINAHL
Crepaz et al. (2009)	I	CINAHL
Diallo et al. (2010)	II	PROQUEST
Eaton et al. (2012)	I	CINAHL
Fisher et al. (2011)	VI	PROQUEST
Jemmott et al. (2008)	VI	PROQUEST
Kalichman et al. (2011)	II	CINAHL
Kennedy & Jenkins (2011)	V	PROQUEST
LeFevre (2014)	I	HEALTHSOURCE
Lopez et al. (2013)	I	COCHRANE
Moreno et al. (2014)	I	COCHRANE

Level I evidence. The studies in this literature review have been critically appraised to be in support of this EBP as they are systematic reviews of randomized controlled trials, are reflective of the population that is included in this EBP and interventions have shown statistical significance in the results. These studies are discussed in detail in the following section.

In a meta-analysis literature review by Crepaz et al., (2009) the efficacy of 37 studies, which included 13,354 participants, published from January 1988 to June 2007 were analyzed. This review was done to “evaluate the efficacy of HIV behavioral interventions for African American females in the United States” (p.1). The reviewers searched AIDSLINE (discontinued in 2000), EMBASE, MEDLINE, PsycINFO, and Sociological Abstracts. They manually searched

35 key journals that published HIV or STI prevention research. Finally, the researchers examined reference lists of pertinent reports.

Studies were included if they met all of the following criteria: (1) they were evaluations of US-based behavioral interventions intended to reduce the risk of HIV or STI transmission; (2) they targeted women or stratified data by gender; (3) more than 50% of their female participants were African American, or data were stratified by ethnicity; (4) they were randomized controlled trials or controlled studies that minimized systematic bias associated with non-randomization; (5) they measured at least 1 HIV-risk sex behavior (i.e., unprotected vaginal or anal intercourse, condom use), or they measured clinical diagnosis or laboratory confirmation of STI; (6) they reported at least 1 post-intervention outcome; and (7) they provided data necessary for calculation of effect size (Crepaz et al., 2009).

The authors of this review served as trained reviewers and abstracted information from eligible studies. Citations that described the same intervention evaluation study were included. Citations that provided outcome assessments at different time points were also used. The themes central to the studies included the basic principles of the theory of gender and power and empowerment theories. Empowerment is used as building self-efficacy, decreasing self-blame, assuming personal responsibility, increasing assertiveness, and developing communication and negotiation skills to ensure power sharing and equality within a relationship. Empowerment was coded for an intervention if it addressed self-efficacy for risk-reduction behavior, assertiveness, and power imbalances in relationships.

In the studies selected, participants were given pre-tests and post-tests to measure sex behaviors, STD outcomes, and STD knowledge. Interventions for sexual risk reduction among the patients at sexually transmitted disease (STD) clinic included separate and combined effectiveness of brief and intensive educational classes. Behavioral interventions had a

significant impact on reductions in HIV/STI-risk sex behaviors (odds ratio [OR] = 0.81; 95% confidence interval [CI] = 0.67-0.98) indicating a 19% reduced odds of STD diagnosis among intervention participants. Interventions were more effective in studies that specifically targeted African American females used gender- or culture-specific materials, used female deliverers, addressed empowerment issues, provided skills training in condom use and negotiation of safer sex, and used role-playing to teach negotiation skills. Efficacious interventions were those specifically directed toward African American females, delivered by women, and focused on self-efficacy, assertiveness, and negotiation skills intended to empower women to seek equality in their relationships. Culture-specific interventions showed success in reducing HIV-risk sex behavior. These findings support the idea that interventions for African American females should be gender-and culture-specific and should be particularly focused on empowerment. Additional intervention components contributing to behavior change were skills training in correct condom use and negotiation of safer sex. Also, interventions providing condom use practice and condom negotiation practice also had cultural-and gender-specific components. These studies have shown evidence that educational interventions be gender and culture specific along with the demonstration of condom usage, and communication skills. Therefore, this work of literature is critically appraised as a systematic review which provides strong support for this EBP project.

Eaton et al., (2012) conducted a systematic review to estimate the efficacy of single-session, behavioral interventions for STD prevention. The authors searched for studies (through May 2011) in the MEDLINE (PubMed), PsycINFO, CINAHL, ERIC, and Proquest electronic databases; all international sub-databases in the World Health Organization's Global Health Library (LILACS, SEARO, EMRO, WPRO, WHOLIS, and AFRO); and the Syntheses of HIV/AIDS Risk Reduction Project's database and document depository of interventions related

to HIV and other STDs. Authors used the following keywords: intervention, behavior, STI, STD, AIDS, HIV, brief, single session, one session, education, program, and counseling. They also searched the reference sections of obtained articles. Language and date restrictions were not applied.

Studies were included if they satisfied the following criteria: the intervention consisted of a single session, the study reported at least one STD outcome, and the study reported a control arm. Non-randomized controlled trials were included only when study designs were consistent with approaches set forth by Cochrane review procedures for non-randomized designs. Two independent reviewers conducted literature searches. Three independent reviewers evaluated all literature results to determine studies to include in the analysis. Interventions that focused on standard HIV testing and counseling were excluded because these interventions have been reviewed and analyzed (Eaton et al., 2012).

STD outcomes were gathered through medical records (chart abstraction and laboratory results), disease surveillance systems, self-reported data, and a combination of medical records and surveillance. Infection with an STI was 35% less likely (odds ratio=0.65; 95% confidence interval=0.55–0.77) among intervention group participants than among control group participants. The reduction in the number of STD cases from the brief intervention shows that even when there are restrictions in control groups. The study also showed that single-session behavioral interventions demonstrated a pattern of positive effects on sexual risk, including reductions in number of unprotected sex acts and increases in condom use. Overall single brief interventions showed positive effects on sexual risk, including reduction in the number of unprotected sex acts and increases in condom use (95% confidence interval= 0.06-0.37; 95% confidence interval= 73.98-88.19). This effect size was interpreted as a small but significant effect of improved condom use among intervention group participants relative to control group

participants. Single session interventions offer considerable benefits in terms of disease prevention and create minimal burden for both the patient and the provider.

Eaton et al., (2012) stated that it is likely that bundled HIV prevention measures will target individuals at risk for HIV and other STDs; therefore, providers should capitalize on these teachable moments. For example, the openness to behavior change that can occur after a diagnosis may explain at least some of the observed effects in single-session interventions with clinic patients. Receiving an STD diagnosis is itself a potent motivator for many people to change their sexual risk behaviors; thus, this time period is an important window of opportunity for intervention. Since this study has shown support of brief single session interventions which incorporate STD education along with condom demonstration and communication interactions, it has been critically appraised as a systematic review and will be very strong support for this EBP project.

According to Melnyk and Fineout-Overholt (2011) clinical practice guidelines should be appraised for credibility and generalizability/applicability. This guideline was supported by the Agency for Healthcare Research and Quality. Literature included in this guideline covers a timeframe of ten years. Levels of evidence of the literature review were not identified within the guidelines. This guideline is approved and recommended by the USPSTF. LeFevre (2014) established a clinical practice guideline on behavioral counseling interventions to prevent sexually transmitted diseases (STDs). These guidelines recommend intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for STDs. The review included randomized, controlled trials and nonrandomized, controlled clinical trials of interventions targeting risky sexual behaviors to prevent STDs (alone or in combination with other behaviors) in adults and adolescents (including pregnant women) of any sexual orientation or level of reported sexual activity. The review included studies that were conducted in, or

recruited participants from, primary care settings, mental health clinics, reproductive health clinics (including STD clinics), or broader health care systems in developed countries. The studies reported health outcomes (STD incidence or related illness), behavioral outcomes (changes in sexual behavior), or adverse effects of sexual risk-reduction counseling (for example, care avoidance, shame, guilt, or stigma). The studies included had to have at least 3 months of post-baseline follow-up for all outcomes except harms. Interventions were defined as high, moderate, and low intensity interventions. The intervention contact time was comprised of more than 2 hours, 30 minutes up to 2 hours, and less than 30 minutes, respectively.

In adults, 19 trials, (n= 61,909) reported STD outcomes, 4 of which had multiple treatment groups with varying intervention intensity. High-intensity interventions resulted in a 30% reduction in the odds of acquiring an STD (LeFevre, 2014). The pooled effects from trials of low- and moderate-intensity interventions did not show a reduction in the odds of acquiring an STD. However, 2 low- and 2 moderate-intensity interventions were effective in preventing STDs. In adults, 21 trials reporting sexual behavioral outcomes yielded mixed results, but high-intensity interventions were fairly consistent in reporting beneficial results. In a meta-analysis of 9 trials (with 11 comparisons) reporting condom use or related outcomes, the odds of condom use increased by 29% with high-intensity interventions and by 21% with moderate-intensity interventions (LeFevre, 2014). The interventions provided to participants were culturally sensitive and appropriate to the population that was being addressed. This guideline meets the criteria for both credibility, applicability, and generalizability therefore provides very strong support of this project.

Lopez, Otterness, Chen, Steiner, and Gallo (2013) conducted a systematic review to examine comparative studies of behavioral interventions for improving condom use. The researchers conducted searches of MEDLINE via PubMed, Cochrane Central Register of

Controlled Trials (CENTRAL), POPLINE, EMBASE, and LILACS. They also searched ClinicalTrial.gov for current trial and trials with results or relevant articles. The authors also performed a hand search. Two authors independently examined the search results for potential eligible studies. The two authors extracted data. One entered the data into a database, and the second author checked accuracy.

Studies could either be randomized or non-randomized. Each study examined a behavioral intervention for improving condom use. The comparison could be another behavioral intervention, usual care, or no intervention. The experimental intervention had an educational or counseling component to encourage or improve condom use. It addressed prevention and transmission of HIV/STD (Lopez et al., 2013). Studies had to provide data from test results on one biological outcome such as pregnancy or STD. This rigorous search of studies and literature yielded 7 random controlled studies. Six of the trials interventions were provided in multiple sessions in a group format. The remaining trial had one individualized session and a follow-up contact (Lopez, Otterness, Chen, Steiner, and Gallo, 2013).

The results for the overall reviews showed four trials assessed the incidence or prevalence of HIV and HSV-2. The investigators reportedly did not find any significant difference in HIV outcomes between the study groups. Two trials reportedly showed lower rates for HSV-2 in the intervention group compared to the control group. The incidence of HSV-2 was reportedly lower by four years in the behavioral intervention group compared to the control group with an adjusted rate ratio 0.65; 95% CI 0.43 to 0.97 (Lopez et al., 2013). The behavioral intervention group reportedly did not differ significantly from the control. Some effect was noted for the behavioral intervention plus STI program (Intervention-plus). The incidence of active syphilis (high-titer) was lower for the Intervention-plus compared to the control group with an adjusted rate ratio 0.58; 95% CI 0.35 to 0.96. The prevalence of gonorrhea was also lower for the

Intervention-plus versus the control group (reported adjusted rate ratio 0.28: 95% CI 0.11 to 0.70 (Lopez et al., 2013).

Since this study had limited results due to using biological outcomes such as pregnancy tests and STD tests, the researchers did not find favorable results for pregnancy or HIV, and only found positive results for other STDs. The overall quality of evidence was moderate to low; losses to follow up were high. Effective interventions for improving condom use are needed to prevent pregnancy and HIV/STI transmission. The researchers did note that almost all the trials provided multiple sessions in a group format, and most were multifaceted (Lopez et al., 2013). Implementation would be complex and require significant resources. Interventions that are feasible for resource-limited settings are still needed. Future researchers should allocate time, resources, and use these factors in a manner that will be efficient for both provider and patient. It is beneficial to make use of time spent with client and use this time as teachable moments for STD prevention. Although this study had limited results for pregnancy and STD tests, it still demonstrated that condoms, STD education, and communication are key interventions. These interventions had an educational or counseling component to encourage or improve condom use which aids in the support of this EBP and is critically appraised as moderate.

Moreno et al., (2014) performed a systematic review to assess the effects of structural and community-level interventions for increasing condom use in both general and high-risk populations to reduce the incidence of HIV and STD transmission by comparing alternative strategies, or by assessing the effects of a strategy compared with a control. The researchers used the Cochrane search strategy for RCTs with the assistance of the Cochrane HIV/AIDS Review Group to identify appropriate studies within electronic databases. They did not use any restrictions on language or publication status. Researchers used Cochrane Central Register of Controlled Trials (CENTRAL) from 2007 to April 2014, as well as MEDLINE, EMBASE,

Psychological Abstracts and Sociological Abstracts using a strategy similar to MEDLINE, from January 1980 to April 2014. Search strategies were improved by including text and key words from relevant trials accessed by the authors that were not detected by earlier searches. Searches were performed both with and without keywords related to the study design. This rigorous review of literature produced a total of 17 studies.

These studies used structural interventions which are defined as “any public health intervention that aims to improve society’s health status by modifying the context in which health related behavior take place” (Moreno et al., 2014). Structural interventions can take place with the individual, group, or community. These interventions aim towards knowledge, attitudes, and behaviors linked to condom use. Community level interventions often focus on changing behavior, knowledge, and attitudes more towards social norms. The outcome measures focused on HIV and STD incidence and prevalence, self-reported condom use, sexual partners, knowledge about HIV, STD, condom use, and self-efficacy.

Results varied with the studies. One study proved to be effective in reducing the prevalence of trichomoniasis in the general population when addressing both genders. Although individual trials did not demonstrate change in unprotected sex, the meta-analysis proved interventions to be effective. All meta-analyses regarding change in knowledge yielded statistically significant result in favor of interventions. Biological and knowledge outcomes proved to be strong, whereas behavioral outcomes such as condom use and number of sexual partners tended to vary between significant and non-significant (Moreno et al., 2014). This study has been critically appraised as a systematic review that is in moderate support of this EBP because there was a change in knowledge for STDs, condom usage, and self-efficacy as it relates to communication and condom use.

Level II evidence. Several questions were utilized as identified by Melnyk and Fineout-Overholt (2011) when critically appraising RCTs. These questions included assessment of (a) the validity of the study results, (b) the results including intervention/treatment effect, and (c) the applicability of the results to clinical practice. These Level II studies are discussed below.

Carey, Senn, Vanable, Courey-Doniger, and Urban (2010) conducted a randomized controlled trial to evaluate the separate and combined effectiveness of brief and intensive interventions for sexual risk reduction among patients at a sexually transmitted disease (STD) clinic. There were 795 men and 688 women ($N=1483$), 64% Black, seeking care at a publicly funded, walk-in STD clinic in upstate New York.

Participants received one of two brief interventions. Both required 15 min, were delivered by clinic nurses. The brief motivational intervention was based on behavioral counseling. This intervention was tailored to each patient's circumstances. Open-ended questions were used to understand the patients' life circumstances, sexual risk behaviors, and stage-of-change for risk reduction; counseling appropriate to the patient's stage was delivered; condom use and attendance at the intensive intervention were emphasized. The brief informational intervention (B-INFO) was delivered with a digital video-disc (DVD); this intervention was designed to serve as a high-quality, standard care control condition. A clinic nurse met briefly with the patient and asked a series of closed-ended questions to assess sexual risk behavior and stage-of-change for risk reduction. The patient then viewed the DVD in a private room. The DVD included information about HIV and STDs, testing, and sexual risk reduction options presented in an engaging and culturally appropriate style. The DVD stated that attending educational and safer sex workshops could help people stay healthy. Patients were paid \$20 for completing the

baseline and were reminded that they would be contacted in 3, 6, and 12 months for follow-up assessments (Carey et al., 2010).

Two intensive interventions were implemented, which were structurally equivalent; that is, both required 4 hours, were delivered in same-sex groups, and occurred at the STD clinic. The intensive informational (I-INFO) workshop included information about HIV/STD transmission, prevention, testing, and treatment. Facilitators distributed cards with statements about HIV and STDs. The participants took turns reading the statements aloud, and the facilitators and participants discussed the accuracy of each statement. Participants also placed cards labeled with different sexual activities along a risk continuum. The intervention concluded with a question-and-answer game show, during which information covered in the workshop was actively reviewed and rehearsed. However, the intensive information-motivation-behavioral skills (I-IMB) were created from empirically validated interventions. During the information component, participants learned about HIV transmission and prevention. During the motivational component, participants: (a) received local HIV/ STD rates (to sensitize them to their risk); (b) watched a video of individuals infected with HIV and discussed what it would be like if they themselves were infected with HIV; and (c) placed cards with sexual behaviors along a risk continuum, discussed the factual basis for each appraisal, and reflected on their own sexual behaviors, and where these behaviors fell on the continuum (Carey et al., 2010).

Outcome measures were based on STD infection rates obtained through urine screening and charts from the health department. The sexual risk behavior was reported by participants, which included the number of partners, and whether or not condoms were used. Theoretical antecedents to risk behavior were defined through items from STD Knowledge questionnaire and HIV Knowledge questionnaire (Carey et al., 2010). It was important to measure these outcomes in order to deem the intervention effective with the defined populations.

Interventions showed there were consistent patterns of lower STD rates, reduced sexual risk behavior, and improved risk reduction knowledge, attitudes, and skills. According to Carey et al., 2010 this pattern of improvement was consistently observed over 12 months and across multiple outcomes; gains were observed on variables that are immune to social demand (i.e., incident STDs, knowledge). The consistent pattern of results suggested that the use of well-designed, theoretically informed behavioral interventions would help patients to reduce sexual risk behavior and avoid re-infection with a STD (Carey et al., 2010). This study meets the criteria as being valid with results that showed significance and is very strong support for this project.

Diallo et al., (2010) implemented a randomized controlled trial to evaluate the efficacy of a highly interactive, single-session HIV prevention intervention for black women. The study was conducted from March 2006 through June 2007 with ($n= 313$), 161 women in the intervention group and 152 in the comparison group from the Atlanta area. Intervention workshops took place at locations that were typical of those where *SisterLove*[™] (the intervention program) had been delivered in the past. A group-randomized trial design was used to assess intervention efficacy. The single session intervention known as the *Healthy Love Workshop*[™] (HLW) was designed to increase consistent use of condoms and other latex barriers, reduce unprotected sex with male partners, and reduce the number of sex partners. HLW also promotes sexual abstinence, HIV testing, and receipt of test results. The intervention is based on principles of the Health Belief Model, the Transtheoretical Model, and Social Cognitive Theory, and uses approaches to encourage women's abilities to empower themselves. The HLW reflects the belief that black women's collective wisdom and lived experiences provide important learning opportunities, and encourages them to demand safer sexual behaviors for themselves and their

partners. The HLW is designed to change participants' behaviors by improving their knowledge about the transmission and prevention of sexually transmitted infections (STI) including HIV; their ability to assess personal risk of contracting HIV; their attitudes about condom use and HIV testing; and their self-efficacy to engage in protective behaviors, including condom use (Diallo et al., 2010).

Outcomes were self-reported behaviors, and all measures, except HIV testing, referred to behaviors during the 3 months prior to data collection. Behavioral outcomes included condom use during vaginal sex with male partners, unprotected vaginal and anal sex with male partners, sexual abstinence, number of sex partners, and testing for HIV and receipt of test results. At the 3-month follow-up, HLW participants reported significantly greater rates of condom use during vaginal sex with any male partner (adjusted odds ratio [AOR] = 2.40; 95% CI = 1.28-4.50) and with a primary male partner (AOR = 2.87; 95% CI = 1.18- 6.95) than comparison participants. Although significant intervention effects on these condom-use outcomes were not sustained at the 6-month follow-up, the intervention effects remained protective and favored HLW participants (Diallo et al, 2010).

Diallo et al., (2010) compared participants to women who received prevention information in the didactic HIV101 workshop. The participants in the highly interactive, skill-enhancing HLW reported greater improvements in self-efficacy for condom use and HIV knowledge immediately after the intervention. There was greater intention to use condoms with their primary male partners at 3 months post-intervention, greater improvements in attitudes toward using condoms, and HIV knowledge at 6 months post-intervention. This study reported clinically important outcomes, is a single session educational session, is appropriate for the population of this EBP project, therefore, this study will be appraised as very strong support.

Kalichman et al., (2011) implemented a randomized controlled trial to examine the effects of a brief counseling intervention designed to reduce HIV risk behaviors and sexually transmitted diseases (STDs) among Black patients. Participants included 414 men and 203 women receiving services at an urban STD clinic in Cape Town, South Africa. Participants were STD patients referred by a nurse clinician to participate in a prevention study that involved receiving a single counseling session and completing follow-up assessments over 12 months. Patients were screened with a survey and completed a baseline assessment. After this assessment, they were randomly assigned to receive either the experimental 60-minute behavioral skill building HIV risk reduction counseling session or a 20-minute HIV educational control intervention. Patients received a \$10 stipend and had follow up assessments at 1, 3, 6, 9, and 12 months after counseling.

Outcome measures included results from STD screenings or results obtained from charts. There was also measurement of sexual risk and protective behaviors in which clients disclosed number of sexual partners and whether condoms had been used. Finally, there was a measurement of HIV prevention knowledge, and risk reduction self-efficacy, which is one's ability to perform specific behaviors under certain conditions (sexual assertiveness). The latter of the outcomes were self-reported through questionnaires that were viewed on a monitor, and answers were recorded by clicking a mouse (Kalichman et al., 2011).

According to Kalichman et al., (2011) results of analyses on incident STDs over the 12 months after counseling indicated that participants in the risk reduction counseling group were less likely to return to the clinic with an STD than were participants in the control condition (Wald $\chi^2=3.35$, $p = .06$). In addition to participant gender, researchers tested 3 potential moderators of STD outcomes: number of sexual partners reported at the follow-ups, unprotected sex, and use of substances before sex. Results showed that when moderator variables were taken into

account, participants in the risk reduction counseling group had contracted significantly fewer STDs over the follow-up period. Results showed a significant intervention effect on AIDS-related knowledge. However, members of the control condition demonstrated more accurate AIDS knowledge than did members of the risk reduction counseling condition. This result was not accounted for nor addressed as to why this occurred. This study suggested that refresher courses be offered periodically to reinforce risk reduction, include hands on skills and address the obstacles that tend to add to relapse in behavior. This study was randomized, with valid and reliable instrument, and can be generalized to the population of this EBP project thus giving moderate support.

Level V evidence. The following study has been critically appraised to be evidence at a level V assessed in accordance to Melnyk Fineout-Overholt's tool (2011). Implications for research was stated in the study and is plausible. The research is appropriate for this study and the results are logical in their interpretation and relevant to the population included in this EBP.

Kennedy and Jenkins (2011) conducted an analytical review of the literature emphasizing sexual assertiveness of African American women and the gap that exists in research literature on this population. This review examined both quantitative and qualitative studies that addressed sexual assertiveness and HIV risk, sexual assertiveness and communication, and women with low sexual assertiveness. The authors evaluated attitudes and behaviors toward sexual assertiveness and the reduction of STDs. There was also an examination of cultural attitudes that have been historically linked to a woman's behavior concerning intimacy and condom usage.

Quantitative studies of communication, assertiveness, and condom use predictors assessed the following: (a) communication, (b) sexual communication, (c) general assertiveness, (d) sexual assertiveness, (e) self-efficacy, (f) sexual risk, and (g) sexual activity.

The results revealed a significant correlation with general assertiveness and sexual assertiveness. But compared with general assertiveness, results revealed that sexual assertiveness was the most significant predictor of condom use. It was found that when an individual exhibited a positive attitude toward condom use, greater levels of sexual assertiveness were associated with actual condom use (Kennedy & Jenkins, 2011). The tool utilized to measure sexual assertiveness within the STD prevention subscale has shown that all parameters were significant at the $p < .001$ level. Tests for significance of the standardized sample regression coefficients (t tests) revealed that Pregnancy STD prevention assertiveness was significantly associated with self-efficacy for AIDS and STD prevention ($B = .33, p < .001; 1$) (Morokoff et al., 1997).

This review revealed that educational interventions are efficacious at preventing HIV and STDs among African American females. As a result of this comprehensive analysis of studies, there is an importance of interventions efficacy in studies targeting gender or cultural materials focusing on (a) female deliverance, (b) empowerment issues, (c) skilled training on condom use and negotiation of safe sex and (d) roleplaying to teach negotiation skills (Kennedy & Jenkins, 2011).

Level VI evidence. Guidelines for critical appraisal of qualitative evidence were used to critically appraise the following Level VI studies (Melnyk & Fineout-Overholt, 2011) and included (a) the validity of the study results, (b) the quality of the description of the findings, and (c) the applicability of the results to clinical practice.

Fisher et al., (2011) performed a qualitative study of longitudinal changes in sexual risk outcomes among African American and Hispanic participants in the Video Opportunities for Innovative Condom Education and Safer Sex (VOICES/VOCES) program at four CDC-funded

agencies. Participants included 922 high-risk individuals in 15 community-based organizations (CBO) from July 1, 2004 to June 30, 2010 located in Texas, South Carolina, and Georgia.

The program consisted of a single-session HIV/ STD educational prevention intervention that emphasizes condom use and condom negotiation skills among African American and Hispanic men and women. During the session, a culturally specific video on condom use and negotiation was shown to a small group of same-sex individuals, followed by a group discussion led by a facilitator and role-play exercises among the participants (Fisher et al., 2011).

According to Fisher et al., (2011) outcome measures were based on sexual activities that occurred during a 30-day recall period. Efficacy research measured self-reported change in knowledge, attitudes, and behavioral intentions for condom use, and biological markers. Clients were given baseline assessments, post-tests and STD screens.

On average, all sexual risk behaviors decreased from baseline to follow-up 1, and from follow-up 1 to follow-up 2. Self-reported STD diagnoses decreased from baseline to follow-up 2. This study suggested that participation in the VOICES/VOCES intervention in a variety of community settings may lead to sexual risk reduction among various high-risk populations. For most outcomes examined in this study, risk reduction was more pronounced for African American and Hispanic participants than for white participants, particularly at the second follow-up time point, which is approximately 4-months post intervention (Fisher et al., 2011). This study has been appraised as very strong support for this EBP.

Jemmott, Jemmott, Hutchinson, Cedarbaum, and O'Leary (2008) performed a single descriptive study to review the extent of STD/HIV among inner city African American women and to describe a nurse led 20-minute risk reduction intervention called Sister to Sister. Participants consisted of 564 Black women seeking care at the outpatient Women's Health Clinic of a large hospital in Newark, New Jersey. Participants were randomly assigned to one of

five single session interventions, were given pre- and post-test questionnaires and swabbed for gonorrhea and chlamydia.

The intervention was designed to increase knowledge of HIV and STDs, strengthen behavioral beliefs concerning the ability of condoms to prevent STDs and HIV. It was structured to also enhance beliefs regarding effects of condom use on sexual enjoyment, increase communication skills, condom use skills and self-efficacy. Curriculum activities included the handling of condoms, video clips, and role-playing to allow the women to negotiate abstinence or condom use with sexual assertiveness (Jemmott, Jemmott, Hutchinson, Cedarbaum, and O'Leary, 2008).

This study demonstrated that the *Sister to Sister*[™] one-on-one skill building intervention and the group skill building intervention were both effective at reducing sexual risk behaviors and STD occurrence and that these effects were sustained at 12 month follow up. Women in the brief skill-building interventions reported greater frequency of condom use at 12-month follow-up as compared to women in the control group. These women also were more likely to report using condoms the last time they had sex compared to those in the control group, and were less likely to test positive for STDs at the 12-month follow-up. The skill-building interventions resulted in positive changes on mediators of condom use (self-efficacy and impulse control). The brief, nurse-led, one-on-one, and group skill-building interventions were effective in reducing STI/HIV sexual risk behaviors and STI incidence among inner-city African American women (Jemmott et al., 2008). This descriptive story has been appraised as very strong evidence in support of this EBP.

Construct Evidence-Based Practice

The critically appraised literature review revealed common themes and provided a foundation for practice recommendations for this EBP project. A complete synthesis of the literature provided the project manager with an organization of the evidence, so that one might recognize elements of best practice and build an appropriate educational intervention that would aid in the prevention of STDs. The implementation of the best practice recommendations will help to answer the PICOT question.

Synthesis of appraised literature. After the literature has been appraised, the project manager observed the central themes of an educational intervention for STD prevention. The literature appraised analyzed STD occurrence, behavioral changes which included communication skills supported by sexual assertiveness, condom usage skills and STD knowledge. Eight of these studies encouraged the use of single session interventions which included videos, role-playing, and handouts to reinforce concepts being taught.

Sexual Assertiveness through communication skills. Communication skills were supported by studies conducted Crepaz et al., (2009) which included culture, gender, and empowerment as building self-efficacy, decreasing self-blame, and assuming personal responsibility. Furthermore, the intervention aided the participants in communication and negotiation skills to ensure power in the relationship. These indicators were significantly associated with intervention efficacy. The Jemmott, Jemmott, Hutchinson, Cedarbaum, and O'Leary (2008) study encourages the healthcare provider to use strategies such as the use of acronyms that are keys to remind participants, and also to ease communication regarding condom use negotiation. In the study by Jenkins, Kennedy, and Roberts (2013) communication was a key element in condom negotiation as it relates to sexual assertiveness. Women that were able to express their feelings on the use of condoms were more apt to use them, thus defining them as

more sexually assertive. The more sexually assertive the woman is, the risk of her contracting an STD is reduced. The Kennedy, Roberts, Jenkins, and Chalice (2011) study echoed the findings of the Jenkins, Kennedy, and Roberts. The connection for communication as it relates to condom usage and an improvement in the intent to use condoms via sexual assertiveness. The study that was conducted by Kalichman et al., (2011) emphasized sexual communication skill building by having participants discuss personal risk situations and identify cues related to their sexual risks. Diallo et al., (2010) incorporated sexual assertiveness and communication in a segment of their intervention which focused on condom negotiation. Participants who were able to persuade their partners to use condoms were more inclined to be sexually assertive, thus reducing the risk of STD. Fishers et al., (2011) incorporated a culturally specific video on condom use and negotiation skills. Results showed significant risk reductions at follow-up which implied that participants felt more comfortable with conveying to partners that condoms should be used.

Condom usage skills. Condom usage skills are also seen as an important construct that is common among the studies. Carey et al., (2009) provided counseling on the proper handling and use of condoms with participants. Crepaz et al., (2009) provided skills training during the interventional sessions for handling of condoms in conjunction with negotiation. This study also indicated that interventions providing condom use practice and condom negotiation practice should have cultural and gender-specific components. In the systematic review by Moreno et al., the structural and community-level interventions were aimed at promoting condom use and self-efficacy as related to condom use and sexual practices. Jemmott, Jemmott, Hutchinson, Cederbaum and O'Leary (2008) included the use of a condom keychain in their study so that participants could share what they have learned in the clinic setting about condom usage with their partners, family, and friends. The Jenkins and Kennedy (2011) study

reiterated the fact that the lack of power to influence condom use with a partner resulted in the woman being exposed to an STD or HIV, therefore the authors felt that it was necessary to arm women with communication skills that would ultimately influence condom handling and negotiation skills. LeFevre (2014) established clinical guidelines that requires that training in pertinent skills such as condom use and communication about safe sex be incorporated into intervention programs. The study that was conducted by Eaton et al., (2012) noted that intervention effects increased condom use outcomes. Participants in this study were more inclined to obtain and use condoms if they were provided condom coupons at local stores. Diallo et al., (2010) incorporated an intervention that was designed to increase consistent use of condoms and other latex barriers. Activities through the Healthy Love Workshop included skills for correct condom use, and also the encouraging women to negotiate condom use with partners. The Lopez, Otterness, Chen, Steiner, and Gallo (2013) study emphasized the consistent and correct use of condoms in the systematic review, which reviewed behavioral interventions to improve condom use and communication campaigns. Fishers et al., (2011) used penis and vagina models in their study so that participants could have hands on demonstrations of both regular and vaginal condoms. This activity led to participants verbalizing that they were more confident with applying prophylaxis appropriately.

STD Knowledge. Several studies addressed the participants' knowledge or lack of knowledge as it pertains to STDs. Carey et al., (2009) utilized the STD Knowledge Questionnaire to assess theoretical antecedents of risk behavior. Higher scores in knowledge indicated that participants would be more likely to use condoms, because they are aware of the consequences associated with STD transmission. In the study by Diallo et al., (2010) an STD knowledge scale was developed and included questions on ways to prevent acquiring an STD. After the intervention, participants reported significantly greater improvement in intent to use

condoms. In the systematic review by Moreno et al., (2014) four trials reported improvement in knowledge about HIV finding a significant change after the intervention, and three trials reported improvement in knowledge about other STDs finding the intervention to be effective. Kalichman et al., (2011) found that behavioral intervention showed a significant effect on AIDs related knowledge in their intervention group. Fishers et al., (2011) reported an increase in knowledge of STDs because their program incorporated information targeted at high risk groups, which translated into participants retaining information presented to them through verbal and video interactions.

Brief single session interventions. In the study by Carey et al., (2009) it was demonstrated that brief and intensive interventions can be effective if they target behaviors that drive the STD epidemic and are attractive to participants. Diallo et al., (2010) demonstrated in their study that single session interventions delivered to minority women is an effective approach to prevention of STDs. This study also showed that a culturally appropriate STD and HIV prevention intervention can be administered by a community based organization. Crepaz et al., (2009) found that interventions with fewer sessions are as efficacious at reducing HIV and STD risk sex behaviors as are interventions with more sessions. One session interventions were culturally specific and the success of a behavioral intervention depends more on the intervention components and the quality of the intervention than the number of sessions. Jemmott et al., (2008) found that one-on-one and group skill building interventions were both effective at reducing sexual risk behaviors and STD occurrence and that these effects were sustained after one year. LeFevre (2014) indicated that interventions ranging from 30 minutes to 2 or more hours of contact time are beneficial in reducing a person's likelihood of acquiring an STD. Eaton et al., (2012) found that single session interventions succeeded in reducing STD incidence and can potentially add value to the protective effects of biomedical interventions.

Kalichman et al., (2011) found that brief prevention counseling has shown promise in reducing sexual risk behaviors and decreasing STDs. Overall single-session sexual risk reduction counseling can be as effective as interventions that require multiple sessions and consume far greater resources. Fishers et al., (2011) behavioral intervention communicated prevention messages in a brief period of time (45 minutes to an hour) and is structured so that it could be integrated into an assortment of services in a community health setting.

Educational counseling interventions can reduce a person's likelihood of acquiring an STD. Interventions can be delivered by primary care clinicians or through referral to trained behavioral counselors. Most successful approaches provided basic information about STDs and STD transmission; assessed the person's risk for transmission; and provided training in pertinent skills, such as condom use, communication about safe sex, problem solving, and goal setting. Many successful interventions used a targeted approach to the age, sex, and ethnicity of the participants and also aimed to increase motivation or commitment to safe sex practices. Intervention methods included face-to-face counseling, videos, written materials, and telephone support.

Sexual assertiveness is an important skill needed to communicate sexual preferences and information. Assertively refusing sex is significant in the communication of HIV risk information with a heterosexual partner, therefore, communicating sexual preferences and information is a part of sexual assertiveness. Sexually active women who have low sexual assertiveness and risky sexual partners are at risk for HIV, because women who are not sexually assertive are less likely to use condoms.

Best practice recommendation. Synthesis and appraisal of relevant literature helped the project manager to determine that best practice for an educational intervention for the prevention of STDs is to implement a brief educational counseling intervention ranging from 30

minutes to 2 or more hours of contact time in the community based clinic. The aim of this EBP project was to increase knowledge of STDs, attitude toward condom usage, and sexual assertiveness communication skills. Most of the interventions slightly differed, but they all held the same premise that an increase in overall knowledge empowers a woman, thus reducing the risk of contracting an STD. The programs each addressed consequences of STDs, risk factors, prevention, and treatment. The interventions also set aside time for role-play and question and answer sessions. The project manager will discuss aspects of the HBM and how it affects the best practice recommendation. The program is estimated to last approximately 1.5 hours at the community based clinic.

CHAPTER 3 IMPLEMENTATION OF PRACTICE CHANGE

The purpose of this EBP project was to evaluate an educational intervention for the prevention of STDs in minority women, ages 18 to 40, being seen at a Midwestern federally qualified health care center (FQHC). This chapter will cover the method and implementation practice changes for this project. This EBP project evaluated if education had an effect on STD knowledge, attitude toward condom usage, and sexual assertiveness through communication skills. This education was measured in an initial meeting with a pre-test and a follow up post-test after approximately a 10-week period. This project intervention took place over the course of a total 12 weeks from start to finish. With the Health Belief Model (HBM) as the theoretical foundation, this project utilized a systematic approach to establish an educational intervention for STD prevention. The premise of perceived susceptibility, perceived severity, perceived benefits and costs, motivation, enabling or modifying factors, and self-efficacy all contribute to health behaviors. When a person engages in protective behavior such as refusal or avoidance of sex, this may help to determine whether an individual uses effective communication skills and may increase the use of condoms if she perceives an STD as a threat to her health.

Participants and Setting. The setting for this EBP project was a Midwestern FQHC. The clinic is part of a group of five clinics that provides healthcare across the lifespan. This organization is a family practice medical center specializing in primary medical services. In addition to medical services, it offers a vast amount of resources for newborns to adults. The network has locations currently throughout Lake County, Indiana. The group has 11 providers on staff, which includes six physicians and five advanced practice nurses. Comprehensive pediatric and adult medical services are provided within these centers. The centers are also

staffed to provide comprehensive OB and prenatal services with a full-time Certified Nurse Midwife (CNM).

The convenience sample of participants for this project was obtained through flyer advertisement and referral from the CNM in Women's Health area of the clinic. The goal was to obtain 20 to 25 participants. To participate in the project, participants were to be 18 years or older and willing to complete a post-test in 10-weeks. Participants were provided with a pretest to assess baseline knowledge. After this was done, the educational intervention was provided to all subjects. At the initial session, clients were provided with verbal instruction, handouts, demonstration of condom usage, and video clips for viewing. All participants were provided with condoms and an honorarium of ten dollars at the conclusion of the class. Participants completed a post-test via SurveyMonkey™ to assess their retention of knowledge. At the completion of the post-test, more condoms were provided and another honorarium of ten dollars was given to the participants.

Outcomes. The overall goals of this project were to a) increase participants' knowledge and prevention of STDs, b) improve attitudes toward condom use, and c) improve sexual assertiveness communication skills. Three modified tools were used to assess the desired outcomes by way of a pretest/posttest format. The Sexually Transmitted Disease Knowledge Questionnaire (STD-KQ) assessed STD knowledge, the Sexual Assertiveness Scale (SAS) measured assertiveness for STD prevention, and the Sexual Risks Scale (SRS) measured attitudes toward condom usage. A pretest/posttest design was utilized to assess baseline knowledge and knowledge gained following the educational session. Review of literature indicated that knowledge measurement through a pretest/posttest method is a reliable indicator of successful educational programs (Carey et al., 2010; Crepaz et al., 2009; Diallo et al., 2010;

Jemmott et al., 2008; Kalichman et al., 2011; Kennedy & Jenkins, 2011; LaFevre, 2014; and Lopez et al., 2013).

Intervention. The EBP project was implemented to increase knowledge of STD prevention among minority women served by the clinic. The project manager placed informational flyers throughout the clinic and placed them at the check in desk for potential participants. The project manager selected a date to meet with the group and administer a pre-test followed by the behavioral intervention. The session started with an introduction about the project manager and the educational program. The participants completed the survey and following the questionnaire, were administered the *Sister to Sister* STD intervention. The subjects were sent an SMS text message and email with a link to Survey Monkey after 10 weeks for a post-test. The project manager was the moderator of the evidence-based educational intervention to women within the clinic.

Within the review of literature, behavioral interventions that were similar in composition were used for the target population. LaFevre (2014) compiled a clinical guideline that included examples of four evidence-based behavioral interventions. These behavioral interventions provide basic information about STDs and STD transmission, pertinent skills in condom use and communication about safe sex, and goal setting. Many successful interventions used a targeted approach to the age, sex, and ethnicity of the participants and also aimed to increase motivation or commitment to safe sex practices. Intervention methods should include face-to-face counseling, videos, and written materials.

The project manager decided to select a program entitled *Sister to Sister* (Jemmott et al., 2008) to use with this project. *Sister to Sister* is geared towards Black women being served at an inner city health clinic. The goals of the program are to eliminate or reduce sexual risk behaviors through communication, prevent STDs through education, and increase condom use.

The program can be provided as a 20-minute individual intervention or as a group format provided in up to 80-minute format. Participants will be tested prior to the behavioral intervention and then 6 weeks after the intervention.

Planning. Permission to conduct this project was approved by the Medical Director of the clinic network. The clinic's Certified Nurse Midwife (CNM) served as the clinical site facilitator. Tuesdays and Wednesdays were the days suggested by the CNM as the days that would result in more participants for the project.

Copyright privilege was obtained through email communication for the pretest/posttest STD-KQ (M. Carey, personal communication, July 2, 2015). With permission from the author, the project manager chose to use only 6 questions from the original 27 question multiple choice questionnaire. Only six questions were selected because there was a focus on the cause/cure aspect of STD. Results of the internal consistency and test–retest provided strong support for the reliability of the final 27-item STD-KQ. The STD-KQ has strong internal consistency ($r = .86$), which compares favorably to other HIV-specific, single STD and multiple STD questionnaires (Jaworski and Carey,2006).

The project manager also incorporated the Sexual Assertiveness Scale (SAS) as a pretest/posttest. Copyright privilege was obtained through email communication for this also (P. Morokoff, personal communication, July 2, 2015). Permission from this author was granted to use the Pregnancy-STD prevention subscale, which contains 6 questions. There were only six questions because this was a subscale of larger questionnaire.

Finally, the Sexual Risks Scale (SRS) is incorporated into the pretest/posttest questionnaire. The project manager obtained permission from the author to use the attitude towards condom use subscale of this test (D. Dehart, personal communication, July 2, 2015). Six questions were used from the original 38 questions. These six questions were chosen

because they focused on attitude toward condom usage. Again, this was a subscale of six questions and that is why this section was chosen. The reliability for the attitude towards condom use subscale has an internal reliability of $\alpha = .83$ (DeHart and Birkimer, 1997). Time for the participants to answer the pretest/posttest was heavily considered. With a 20-minute time frame, the project manager felt it was necessary to find tools that had reliable subscales that could be used from each tool.

Data management and analysis. The educational intervention for STD knowledge, sexual assertiveness, and condom use were measured with pretest/posttest formats. This method of testing allowed the project manager to compare the baseline information before the intervention with data 10 weeks after the intervention. Changes should be seen in the post-intervention follow-up as well as retention of information presented during the intervention. Analysis of data was conducted utilizing a paired *t*-test. A paired *t*-test is a measurement to test differences within a group. In this case, pre-education and post-education scores within a single group was compared. Thus, two measures are obtained from one group of participants. This data determined the efficacy of the intervention (education). The mean pretest scores and the mean posttest scores were analyzed among all participants. Full participation of the subjects to take the pretest/posttest was identified as a possible hindrance for data interpretation. With this in mind, the project manager limited the pretest and posttest to 18 questions.

Protection of human subjects. This project manager was aware of the protection of project participants; therefore, prior to making contact with subjects, the project manager completed training from the National Institutes of Health, which specifically focused on protection of human subjects. The project manager then prepared the project to be submitted for IRB approval. The IRB application was used to determine the type of review that will be

conducted. The educational intervention was approved by the Valparaiso University IRB as an expedited review.

It was explained in detail to participants that their personal information would not be shared outside of this project. Methods to minimize risks to participants were developed. Informed consent was provided to all participants with emphasis of no penalty would occur due to declining to participate or withdrawing from the project at any time. Participants were encouraged to contact the project manager with any questions or concerns via email. Confidentiality was employed and maintained through the use of a coding system for the intervention tests. A key for the coding, the participant's email address, cell phone number, intervention tests, demographic questionnaires, and informed consent forms were secured in a locked box once completed.

In order to maintain confidentiality, coding was employed utilizing an assigned ordinal number sequence and correlating the assigned number to the participant's name. After the informed consent was signed, the participant was assigned a number which was written in the top right hand corner of their demographics questionnaire, participant's email address, cell phone number, informed consent, and pretest/ posttest intervention adapted prevention knowledge tool. In a separate blue folder served as the coding key, the participant's assigned number was written and correlated to their name. The project manager kept a separate document on hand that only listed the participant's assigned number without the participant's name and boxes to mark participant completion and the scores/values of pre-and post intervention tests for this project. The purpose of the separate document was to maximize participant confidentiality but also assist in accurate data collection and analysis. As mentioned before, the blue folder, informed consents, intervention tests, demographic questionnaires, and the participant's email address, and cell phone number will remain in a secured, locked box.

The data was stored in a locked file cabinet until transferred to a password-protected computer. Participation in the educational session was voluntary, as well as the completion the pre/post-tests.

CHAPTER 4

FINDINGS

The purpose of this EBP project was to evaluate an educational intervention for the prevention of STDs in minority women, ages 18 to 40, being seen at a Midwestern FQHC and to implement best practices to reduce the risk of STD infection in this population. Additionally, it was the hope that educational training would increase STD knowledge, increase attitude toward condom use, and increase sexual assertiveness. The EBP project answered the PICOT question: *In minority women, ages 18 to 40 serviced at a Federally Qualified Health Center (FQHC), what is the effect of an educational intervention when compared to no educational intervention for the prevention of Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases (STDs) over a 10-week period?* This question was answered through statistical analysis of data collected from pre-and post-intervention questionnaires. Findings will be discussed in this chapter.

Participants Characteristics

The following section provides a description of participants included in this EBP project sample. Participants characteristics include sample size, demographics, and attrition details. The characteristic data points were collected via a brief demographic questionnaire, attached to the pre-intervention survey. The demographic section contained three items that were evaluated: age, marital status, and level of education. Patient identification was protected and omitted from data analysis. Descriptive analysis was performed on demographic data for the sample.

Size

Demographic data was collected on 14 subjects who participated in the project and provided informed voluntary consent for participation. Characteristics of the sample are

provided in Tables 4.1, 4.2, 4.3 and Figure 4.1. The participants ($n=14$) were all female with a mean age of 31.5 years (range 21-40, $SD = 7.003$). A majority of respondents 71.4% ($n=10$) were single, and the remaining 28.6% ($n=4$) were married. In regards to educational level, respondents ($n=14$), 28.6% ($n=4$) were college graduates, 35.7% ($n=5$) had some college, 14.3% ($n=2$) were high school graduates only, and 21.4% ($n=3$) had some high school. Of the fourteen participants, only eight (57%) completed both the pre- and 10-week post-intervention questionnaire. Information provided from these eight participants was included in the final data analysis to determine the effectiveness of the intervention.

Table 4.1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	14	21	40	31.50	7.003
Marital Status	14	0	1	.29	.469
Highest Grade Completed	14	2	5	3.71	1.139
Valid N (listwise)	14				

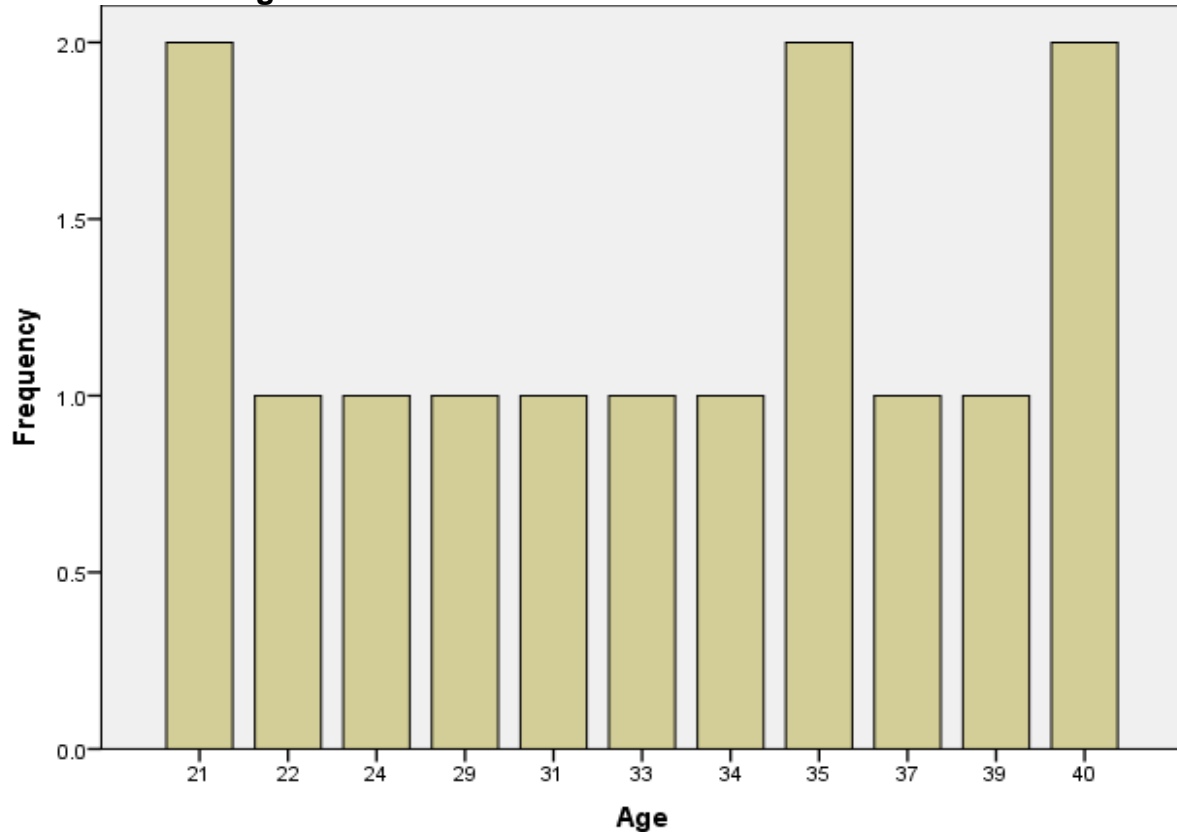
Table 4.2
Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	10	71.4	71.4	71.4
Married	4	28.6	28.6	100.0
Total	14	100.0	100.0	

Table 4.3
Highest Grade Completed

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Some High School	3	21.4	21.4	21.4
High School Graduate	2	14.3	14.3	35.7
Some College	5	35.7	35.7	71.4
College Graduate	4	28.6	28.6	100.0
Total	14	100.0	100.0	

Figure 4.1 Sample Characteristics for Age ($n=14$)
Mean Age =31.50



Statistical Analysis

Detailed statistical analysis was performed using the commercially available IBM SPSS Statistics software, version 22.0. Further statistical analysis was performed to answer the PICOT and to evaluate the effect of an educational intervention on STD knowledge, attitude toward condom use, and sexual assertiveness for STD prevention. Cronbach's alpha analysis was conducted on each concept of the tool for reliability. The STD knowledge concept was measured to have reliability coefficient of 0.865, attitude toward condom use reliability coefficient was 0.378, and sexual assertiveness reliability coefficient was measured at 0.528. Numbers close to 1.00 are very good, but numbers close to 0.00 represent poor internal

consistency. Each participant was asked to complete a pre-intervention questionnaire prior to the educational presentation as well as a post-intervention questionnaire 10 weeks from the initial education session via SurveyMonkey™. Cronbach’s alpha reliability score of the whole adapted questionnaire was .681. Paired samples *t* tests were calculated to compare the mean pre-intervention total score of knowledge to the mean post-intervention total score of knowledge. The mean pre-intervention score was 2.35 (*SD*= 0.44), and the mean post-intervention score was 2.56 (*SD* = 0.27). An increase in knowledge occurred as evidenced by the higher mean post-intervention score. However, the difference between pre and post-intervention scores of knowledge was not statistically significant ($t(7) = -1.407, p > .05$).

Table 4.4

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Mean PreTest Score	2.3525	8	.44362	.15684
	Mean PostTest Score	2.5625	8	.27287	.09648

Table 4.5

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
1 Pair Mean PreTest Score - Mean PostTest Score	-.20997	.42194	.14918	-.56272	.14279	-1.407	7	.202

Outcomes

After a thorough search of the literature, the best practice recommendation was defined and implemented in the EBP project. Research supports the integration of knowledge and personal applicability in influencing behaviors toward health and wellness for prevention. The primary goal of this project was to educate participants about concepts that are used for the prevention of STDs. The project manager held an educational session regarding STDs and prevention. Outcomes based on the pre and post-intervention questionnaires evaluated STD knowledge, attitude toward condom use, and sexual assertiveness. While analyses demonstrated an increase in knowledge of the concepts taught, these statistics were not significant. Difficulty in attributing behavioral change to an intervention is a methodological issue in which not all contributing factors can be accounted for with individuals. Time constraints in measuring the longitudinal effect of the intervention may have also impacted the outcomes. The significance and interpretation of results will be fully discussed in Chapter 5.

CHAPTER 5 DISCUSSION

The results of this DNP project indicated that among minority women ages 18 to 40 years, there was no significant effect of an educational presentation on STD knowledge, sexual assertiveness, and attitude toward condom use over a 10-week period as compared to no educational intervention. This chapter provides an explanation of the project findings, evaluates the theoretical and EBP frameworks utilized to guide this EBP project, and offers implications for future projects.

Explanation of Findings

The literature suggests that best practice for an educational intervention for the prevention of STDs is to implement a brief educational counseling intervention ranging from 30 minutes to 2 or more hours of contact time in the community based clinic. Evidence supports that knowledge measurement through a pretest/posttest method is a reliable indicator of successful educational programs (Carey et al., 2010; Crepaz et al., 2009; Diallo et al., 2010; Jemmott et al., 2008; Kalichman et al., 2011; Kennedy & Jenkins, 2011; LaFevre, 2014; and Lopez et al., 2013). All of the literature that was assessed held the same premise that an increase in overall knowledge empowers a woman, thus reducing the risk of contracting an STD or HIV. The programs each addressed consequences of STDs, risk factors, prevention, and treatment.

Data for this EBP project were collected through administering a pre-and post-intervention questionnaires and then analyzed using SPSS-22. Differences in pre-intervention and post-intervention scores reflected an increase in knowledge, but not at a level of significance. There were 18 questions in the survey that assessed STD knowledge, attitude toward condom use, and sexual assertiveness. The mean pre-intervention score was 2.35

($SD=0.44$), and the mean post-intervention score was 2.56 ($SD=0.27$). An increase in overall knowledge occurred as evidenced by the higher mean post-intervention score. However, the difference between pre and post-intervention scores of knowledge was not statistically significant ($t(7) = -1.407, p > .05$). The intervention addressed some gaps in STD knowledge as reflected by score improvement. The project manager anticipates that there would have been higher scores if there had been a larger participant group and if there was a longer time frame for follow up with post-intervention questionnaires.

Paired t samples were conducted for attitude toward condom use, STD knowledge, and sexual assertiveness. Attitude toward condom use concept showed that there was no overall change of attitude toward condom use with mean pre-intervention score of 3.85 ($SD=0.29$) and a post-intervention score 3.84 ($SD=0.18$). STD knowledge concept showed an increase for STD knowledge with a mean pre-intervention score was 0.73 ($SD=0.21$), and mean post-intervention was 0.89 ($SD=0.14$). There was also an increase in sexual assertiveness with a mean pre-intervention score of 2.54 ($SD=0.51$), post intervention score 2.99 ($SD=0.55$).

A Pearson correlation was calculated to examine the relationship between participants' age and constructs within each of the subgroups of questions. There was a weak correlation that was not significant for age with attitude toward condom use ($r(7) = .351, p > .05$). This finding shows that age did not have an effect on attitude toward condom use. Pearson correlation was also calculated for relationship between age and STD knowledge and age ($r(7) = .325, p > .05$). The relationship between age and sexual assertiveness was also deemed as a weak correlation ($r(7) = .399, p > .05$).

The results for this study were not statistically significant, which could be due to a number of reasons. Test design and administration should have been evaluated for the best method of delivery for the survey. The first part of the survey was comprised of the attitude

toward condom use concept. This could be seen by some as a sensitivity question, because it addresses the participants personal use of condom. However, there was a slight improvement in the STD section of questions, as these questions addressed participants' knowledge. People may be more comfortable with discussing knowledge as opposed to condom use. Questions of the survey should have started with STD knowledge, sexual assertiveness, and culminated with attitude toward condom user. The mode in which the project manager could have hampered valid results. The pre-test survey was administered in person, whereas the post-test was sent in an email via SurveyMonkey™. Finally, a larger sample size, and a longer time frame to evaluate the intervention may have potentially yielded better results for this project.

Evaluation of applicability of the theoretical framework

The HBM was the chosen theoretical framework for the EBP project. The HBM has been utilized to understand and improve health promotion from the beginning of its existence (Glanz, Riner, and Viswanath, 2008). The purpose of the EBP project was to improve health promotion for the prevention of STDs and HIV. This allowed the HBM to be very applicable to the project. The increased knowledge will assist the participants to make better informed decisions about sex. The assessment of knowledge provided the project manager with reassurance that the participants did retain knowledge of the concepts taught for STD prevention. The fit of the HBM to the project will be discussed in regards to the key constructs, which are perceived susceptibility, perceived severity, perceived benefits, perceived barriers. The Health Belief Model is a supporting component of this project because individuals may relate to the perceived susceptibility aspect, as sexual assertiveness can be linked to this component. The belief that one is at low risk of developing an illness is more likely to engage in unhealthy, or risky, behaviors. Whereas, individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviors to

decrease their risk of developing the condition. The same can be said of sexual assertiveness, the higher the sexual assertiveness or communication skills of a woman, the more likely she will use a condom, thus preventing an STD. The lower the sexual assertiveness, the more likely she will engage in risky behavior and not use condoms. Communication skills were supported by studies conducted Crepaz et al., (2009) which included culture, gender, and empowerment as building self-efficacy, decreasing self-blame, and assuming personal responsibility. Furthermore, the intervention aided the participants in communication and negotiation skills to ensure power in the relationship. These indicators were significantly associated with intervention efficacy.

During the intervention, participants were shown a video that demonstrated the potential harms or effects of STDs and HIV, which would apply to perceived susceptibility. Participants were shown how to properly apply a condom to a model penis, and then were given the opportunity to provide a return demonstration. Participants were also given the current statistics of HIV and STDs in Lake County, Indiana which can be viewed as the severity of the problem within the community. Also, discussing the potential illnesses such as cervical cancer and infertility was discussed with participants. Perceived benefits and cues to action were combined in the project as the participants were given non-latex condoms of various textures and lubricants to enhance intimacy. Barriers were discussed with the participants, which included communicating with the significant other feelings about using condoms. Participants also discussed among themselves ways to bring up condom use with partners. Participants also discussed how oral sex could also be as a mode of transmission in STDs. Of the 14 participants in the program, 2 stated that they knew someone personally with HIV, which caused other participants in the class to discuss how the disease may impact those around them.

The ACE Star model was used to facilitate implementation of the program within the clinic. The educational intervention program for the prevention of STD was evaluated to determine outcomes as well as any changes that would benefit the program. The project manager assessed the project for patient health outcomes, satisfaction of both provider and patient, efficacy, efficiency, and economic impact. The chief operating officer as well as the medical director expressed interest in implementing a program of this nature within the clinic. The clinic outreach coordinator informed the project manager that there are programs within the clinic that give incentives for participating in educational based health intervention programs, and this program would easily fit in with existing operations.

Strengths of the EBP

This EBP project was implemented in a community health setting that provides regular educational opportunities for its patients, therefore this project was easily accepted into the women's clinic. The participants were comprised of a random sample which could contain the least amount of bias. There were staff members who were present during the presentation and verbalized the wealth of information that was provided. The project manager had a penis model and demonstrated the proper application of a condom. There were participants who acknowledged that this demonstration and hands-on experience was helpful. Participants were open in asking questions about signs of STD infection as well as talking amongst themselves about the video they were shown during the presentation. Several participants expressed a personal commitment to convey the importance of STD prevention to all female friends, and acquaintances; taking on the role of educator with a focus on preventing STDs and HIV.

Limitations and potential solutions

There were a few limitations with the project. Initially, the medical director and site coordinator gave clearance for the project to be implemented. They were provided with a

proposal and a list of materials that would be used during the program. One week before the project was to be implemented, the chief operating officer requested information about the project. Therefore, the project was pushed back one week. The project manager met with the chief operating officer and provided her with an explanation of the goals of the project and proposal. The project was then given final approval to proceed as planned. This could have been potentially avoided by the project manager investigating the organizational hierarchy within the clinic.

Because the project was moved, another limitation that occurred was the day and time of the program which could have affected the amount of participants. The program was held on the Tuesday before Thanksgiving at ten in the morning. This time could be seen as an inconvenience for those that had children, and those that were preparing for the busy holidays. This can be remedied by holding the educational session during a time that was not so close to the holidays. Another solution for those that had children, was to provide childcare.

Retention of participants at follow-up assessments was low, thereby reducing power to detect significant intervention effects. Again, time restraints impacted the response to post-intervention surveys. Email reminders of the pending follow-up survey could have potentially improved compliance with follow-up assessments.

The final limitation encountered by the project manager was the short time short time period for evaluation of the impact of the intervention. Some of the literature assessed participants' retention of knowledge anywhere from 3 to 12 months with follow up post questionnaires. Due to time constraints this was not feasible. The project manager also felt that there should have been emails sent out as a reminder biweekly reminding participants of the pending post-test survey. In doing so, there could have possibly been a better post-survey follow up.

Implications for the future

Advanced practice nurses are key health professionals in the community primary care clinic setting. They provide culturally sensitive care and possess the skills necessary to counsel women about sexual health issues and sexual risk reduction. They are knowledgeable of the etiology, transmission and prevention of STDs and HIV, and are also aware of the skills their clients need to prevent HIV/STD transmission. In the FQHC setting, the APN encounters women who are at risk for STDs including HIV, but who otherwise may not seek out testing, treatment, or prevention education. Therefore, APNs are in the position to reach at risk and underserved populations to provide them with the information to reduce their STD/HIV related sexual risk behaviors.

In order to increase effectiveness of the program, the program should be administered on a regular basis within the clinic as other educational programs are provided. This includes opportunities for client participation during lunch and learns, health fairs, and after the diagnosis and treatment of an infection. These different modes of delivery, will enable the facilitator of the program to adjust to various settings and adjust the delivery method, that is most suitable to the client.

Implications for clinical practice. The power of knowledge and understanding cannot be underestimated regardless of the lack of statistical significance in this DNP project. The overwhelmingly positive participatory response to the educational presentations reflects that a program of this nature would be feasible in this community health clinic setting. From a practical standpoint, clinic inquiries regarding possible future presentations have occurred. Additionally, it has been suggested that clinic staff may benefit by participation in this educational

presentation. Through reiteration of STD and HIV facts and statistics, staff may be more confident in promoting prevention behaviors.

Implications for the APN role. The results of the data analysis demonstrated that knowledge scores improved after implementation of an educational presentation even though pre- intervention scores were high, and 78% of the participants had a minimum of a high school education. Empowerment through knowledge is a vital component for disease prevention. The APN has a responsibility to educate community members, patients, and staff to ensure understanding and eliminate misconceptions. The advanced practice nurse acts as the change agent to guide and promote self-actualization and personal responsibility of healthy behaviors.

Implications for theory. The Health Belief Model facilitated the participants' response to the intervention. The theory can aid in helping one prepare herself in prevention of STD and HIV. The combination of perceived susceptibility and severity can potentially encourage participants to be aware of impending complications related to unprotected sex. Another implication for this theory are barriers which could be communication for some women. It is important that sexual assertiveness is reinforced through communication skills. This is a theory that is grounded in behavior, therefore it may take more time to see changes in protective behavior. This theory can aid the APN in constructing a program that is generalizable to the population being served, and improve patients' outcomes with a greater understanding of application to practice.

Implications for research. This brief interventional EBP suggests that there should be an assessment on risk awareness as well as the constructs of STD knowledge, attitude toward condom use and sexual assertiveness. Brief interventions can be improved. To optimize feasibility and effectiveness, interventions should be attractive to participants. In this regard, the

program should be offered during a time that is convenient for participants, and offers incentives such as lunch or even childcare.

Implications for education. Future implications for this EBP show the need for ongoing STD and HIV prevention education. An ongoing educational session is recommended within the clinic for this population of women. There is no standard for education in questionnaires used to determine patient knowledge. Many of the questionnaires previously used in the literature contained 40 to 60 items, and the literacy levels of these questionnaires were not determined. Evidence supports using questionnaires that are consistent and reliable. Direct implications for future research can advise standardization of questionnaires, and measure the literacy level of the questionnaire to better accommodate the population being served.

Conclusion

The best practice model recommendation to aid in the prevention of STD per guideline recommendations were obtained through a search of the literature. The relevant literature supports providing brief educational interventions within the community clinic setting that are culturally sensitive and address the following components (a) STD knowledge, (b) attitude toward condom use, and (c) sexual assertiveness. The project manager implemented a single session educational presentation on the prevention of STD in minority women within a federally qualified health center in Northwest Indiana. Among minority females ages 18-40, measurements of the concepts of STD knowledge, attitude toward condom use, and sexual assertiveness were measured before the intervention, and then again 10-weeks post-intervention. Mean score of the post intervention survey did increase with 57% ($n=8$) of participants responding to the survey. Participants answered that they learned new information at the educational setting. Of the 8 participants that did complete the post survey, all (100%) indicated they were very likely or likely to share the information learned during the presentation

with another person. Many minority women can benefit from APNs implementing brief individualized risk reduction interventions that provide opportunities or practicing condom use, communication, sexual negotiation skills, as well as information about STDs and HIV. Dissemination of this information is an important link in the prevention of STDs and HIV, as these infections can both lead to serious health problems.

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BIOGRAPHICAL MATERIAL

Ms. Witherspoon embarked on a career in healthcare when she obtained her B.S. in Health Services and Management in 1998 from Indiana University. She worked for a health insurance company, but always felt a need to work more intimately with people to aid them in improving their health status. This drive along with the desire to make a positive impact in healthcare prompted her return to Indiana University, and she received her B.S. in Nursing in 2003. Ms. Witherspoon received the Dean of Nursing Clinical Excellence award at her graduation ceremony. Upon graduation, she immediately accepted a position as an oncology nurse at a local hospital. Her experience as an oncology nurse, coupled with her interest in disease processes that affect the human body, prompted her educational pursuit of the Doctor of Nursing Practice (DNP) as a Family Nurse Practitioner. She will receive her DNP in May 2016 from Valparaiso University. She is a member of the Society of Nurses in Advanced Practice, and the Coalition of Advanced Practice Nurses in Indiana. Umparrys has had experience as a preceptor and charge nurse at her place of employment. She has always been encouraged by her peers and those she has mentored to further her education to become an educator. She has clinical experience working in both an outpatient oncology setting as well as inpatient care. Her experience has provided her the opportunity to work with a diverse population of patients. She firmly promotes the holistic approach to nursing care, caring for the person, as well as addressing additional factors that may impact their health. Ms. Witherspoon prides herself in making a difference for patients and their families no matter the outcome. She plans to utilize her degree working in the underserved population as well as in academia.

ACRONYM LIST

APN: Advanced practice nurse

CDC: Centers for Disease Control

DNP: Doctorate of Nursing Practice

EBP: Evidence Based Project

IRB: Institutional Review Board

FQHC: Federally Qualified Health Center

HBM: Health Belief Model

HIV: Human Immunodeficiency Virus

PICOT: Population, Intervention, Comparison, Outcome, Time

RCT: Randomized Controlled Trials

STD: Sexually Transmitted Disease

USPSTF: U.S. Preventative Services Task Force

Appendix A

Review of Literature for Educational Intervention for Prevention of STD in Minority Women

Citation (APA)	Purpose	Sample	Design	Measurement	Results/Findings	LOE
<p>Carey, M., Senn, T., Vanable, P., Coury-Doniger, P., & Urban, M. (2010). Brief and intensive behavioral interventions to promote sexual risk reduction among STD clinic patients: results from a randomized controlled trial. <i>AIDS & Behavior, 14</i>(3), 504-517. doi:10.1007/s10461-009-9587-1</p>	<p>To evaluate the separate and combined effectiveness of brief and intensive interventions for sexual risk reduction among patients at a sexually transmitted disease (STD) clinic.</p>	<p>Patients (N =1483; 54% men; 64% African-American; M = 29.2 years old) Participants were 795 men and 688 women (M age = 29.2 years; SD = 9.7) were recruited from a publicly funded, walk-in STD clinic.</p>	<p>Randomized controlled trial</p>	<p>STD infection was assessed through: (a) urine screening; and (b) review of clinic charts and health department records. Sexual risk behavior was assessed with items adapted from previous research. Risk behavior were assessed by self-report. Information assessed using 28 items from the HIV Knowledge Questionnaire, the STD Knowledge Questionnaire, and a measure of HIV testing knowledge</p>	<p>The number of partners decreased from 2.82 at baseline to 2.10 at 3 months (b =-0.09, Z =-4.68, P\0.0001; Fig. 2, panel b). The slope from 3 to 12 months also differed from zero (b =-0.02, Z =-2.46, P\0.05) as patients reduced the number of partners from 2.10 (3 months) to 2.07 (6 months) to 1.90 (12 months). The total number of episodes of unprotected sex decreased from 17.24 at baseline to 11.84 at 3 months (b =-0.15, Z =-4.43, P\0.0001; Fig. 2, panel c). The number of episodes of unprotected sex with a steady partner decreased from 13.97 episodes at baseline to 9.38 episodes at 3 months (b =-0.16, Z =-4.08, P\0.0001), and the number of episodes of unprotected sex in</p>	<p>II</p>

				<p>Behavioral intentions were assessed with 4 items, participants were presented with a scenario and asked to report their likelihood of engaging in risk reduction behaviors</p>	<p>the past 3 months with a non-steady partner(s) decreased from 2.79 episodes at baseline to 1.01 episodes at 3 months ($b = -0.29, Z = -7.39, P \leq .0001$). The slope from 3 to 12 months did not differ from zero. The percentage of episodes of unprotected sex decreased from 66% of episodes at baseline to 50% of episodes at 3 months ($b = -0.16, t = -5.65, P \leq .0001$; Fig. 2, panel d). The percentage of episodes of unprotected sex with a steady partner decreased from 56% at baseline to 44% at 3 months ($b = -0.09, t = -2.77, P \leq .01$), whereas the percentage of episodes of unprotected sex with a non-steady partner(s) decreased from 38% to 19% ($b = -0.22, t = -7.09, P \leq .0001$). The slope from 3 to 12 months did not differ from zero for these variables. Means and SDs for the psychological antecedents of risk behavior appear in Table 4. For all variables, scores improved from baseline to 3 months (all $P \leq .01$; see Table 4 and Fig. 3). For the motivational and skills outcomes,</p>	
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					improvements were generally equivalent across conditions with no consistent pattern of intervention effects. For the knowledge measure, however, patients in the I-INFO (MBL = 67%; M3 = 78%; b = 0.05, t = 5.03, P\0.0001) and I-IMB groups (MBL = 68%; M3 = 78%; b = 0.03, t = 3.63, P\0.001) showed a steeper improvement from baseline to 3 months compared to the CTRL group (MBL = 67%; M3 = 72%; see Fig. 3, panel b).	
Crepaz, N., Marshall, K., Aupont, L., Jacobs, E., Mizuno, Y., Kay, L., & O'Leary, A. (2009). The efficacy of HIV/STI behavioral interventions for African American females in the United States: a meta-analysis. <i>American Journal Of Public Health, 99</i> (11), 2069-2078. doi:10.2105/AJPH.2008.139519	Evaluate the efficacy of HIV behavioral interventions for African American females in the United States, and identify factors associated with intervention efficacy.	Studies published from January 1988 to June 2007, which yielded 37 relevant studies that included 13,354 participants.	Meta-analysis; comprehensive literature review	Pre-test/post-test sex behaviors, STI outcomes, knowledge	Behavioral interventions had a significant impact on reductions in HIV/STI-risk sex behaviors(odds ratio [OR]=0.63;95% confidence interval [CI]=0.54 Interventions were more effective in studies that specifically targeted African American females used gender- or culture-specific materials, used female deliverers, addressed empowerment issues, provided skills training in condom use and negotiation of safer sex, and used role-playing to teach negotiation	I

					skills. Behavioral interventions are efficacious at preventing HIV and STIs among African American females.	
Diallo, D., Moore, T., Ngalame, P., White, L., Herbst, J., & Painter, T. (2010). Efficacy of a single-session HIV prevention intervention for black women: a group randomized controlled trial. <i>AIDS & Behavior, 14</i> (3), 518-529. doi:10.1007/s10461-010-9672-5	Evaluate the efficacy of an highly interactive, single-session HIV prevention intervention for black women.	Eligible groups of Black women were randomly assigned to receive the intervention (15 groups; 161 women) or a comparison workshop (15 groups; 152 women).	Randomized controlled trial	Pre-test/ post-test intervention on HIV and STI knowledge, and condom attitudes, self-efficacy, and intention to use condoms was assessed using psychosocial scales; Behavioral outcomes included condom use during vaginal sex with male partners, unprotected vaginal and anal sex with male partners, sexual abstinence, number of sex partners, and testing for HIV and receipt of test results. Questions about sexual activity were derived from a	Participants reported significantly greater rates of condom use during vaginal sex with any male partner (adjusted odds ratio [AOR] = 2.40; 95% CI = 1.28, 4.50) and with a primary male partner (AOR = 2.87; 95% CI = 1.18, 6.95) than comparison participants. Participants reported significantly greater condom use at last vaginal, anal or oral sex with any male partner at both the 3-month (71 vs. 49.5%; cluster-adjusted χ^2 [N = 181] = 6.66, P = 0.01) and 6-month (67.8 vs. 48.6%; cluster-adjusted χ^2 [N = 229] = 4.62, P = 0.03) follow-up assessments. Participants reported significantly greater improvements in condom-use self-efficacy (adjusted mean difference [AMD] = 2.93; 95% CI = 0.14, 5.72, P = 0.04) and HIV knowledge (AMD = 2.88; 95% CI = 0.10, 5.66, P = 0.04) than comparison participants.	II

				survey developed by the CDC's HIV/STD behavioral surveillance working group.	At the 3-month follow-up assessment, HLW participants reported significantly greater improvements in intentions to use condoms with a primary male partner than comparison participants (AMD = 0.65; 95% CI = 0.02, 1.28, P = 0.04). At the 6-month follow-up assessment, HLW participants reported significantly greater levels of HIV knowledge (AMD = 3.51; 95% CI = 0.81, 6.20, P = 0.01) and greater improvements in attitudes toward condom use (AMD = 2.05; 95% CI = -0.39, 4.13, P = 0.054) than comparison participants.	
Eaton, L. A., Huedo-Medina, T. B., Kalichman, S. C., Pellowski, J. A., Sagherian, M. J., Warren, M., Popat, A., & Johnson, B. T. (2012). Meta-Analysis of single-session behavioral interventions to	To estimate the efficacy of single-session, behavioral interventions for STI prevention.	52,465 participants from 29 single-session interventions were included in review. Demographic characteristics of participants varied across interventions (12 interventions	Meta-analysis of single session behavioral interventions	STI outcomes were gathered through medical records (chart abstraction and laboratory results; k=23), disease surveillance systems (k=3), self-reported data (k=2), and a combination of medical records	Infection with an STI was 35% less likely (odds ratio=0.65; 95% confidence interval=0.55–0.77) among intervention group participants than among control group participants. Single session interventions offer considerable benefits in terms of disease prevention and create minimal burden for both the patient and the provider.	I

<p>prevent sexually transmitted infections: Implications for bundling prevention packages. <i>American Journal Of Public Health</i>, 102(11), e34-44. doi:10.2105/AJPH.2012.300968</p>		<p>involved female participants, 4 involved male participants, and 13 included both male and female participants).</p>		<p>and surveillance (k=1).</p>		
<p>Fisher, H., Patel-Larson, A., Green, K., Shapatava, E., Uhl, G., Kalayil, E., & ... Chen, B. (2011). Evaluation of an HIV prevention intervention for African Americans and Hispanics: Findings from the VOICES/VOCES Community-Based Organization behavioral outcomes project. <i>AIDS & Behavior</i>, 15(8), 1691-1706. doi:10.1007/s10461-011-9961-7</p>	<p>Description of longitudinal changes in sexual risk outcomes among African American and Hispanic participants in the Video Opportunities for Innovative Condom Education and Safer Sex (VOICES/VOCES) program at four CDC-</p>	<p>922 high-risk individuals in 15 community based organizations from July 1, 2004 to June 30, 2010</p>	<p>Qualitative longitudinal</p>	<p>Measured self-reported change in knowledge, attitudes, and behavioral intentions for condom use; sexual activities that occurred during a 30-day recall period</p>	<p>On average, all sexual risk behaviors decreased from baseline to follow-up 1, and from follow-up 1 to follow-up 2. Self-reported STD diagnoses decreased from baseline to follow-up 2. The findings of this study suggest that participation in the VOICES/VOCES intervention in a variety of community settings may lead to sexual risk reduction among various high-risk populations. For most outcomes examined in this study, risk reduction was more pronounced for African American and Hispanic participants than for white participants, particularly at the second follow-up time point</p>	<p>VI</p>

	funded agencies				(approximately 120 days post intervention).	
Jemmott, L., Jemmott, J., Hutchinson, M., Cederbaum, J., & O'Leary, A. (2008). Sexually transmitted infection/HIV risk reduction interventions in clinical practice settings. <i>JOGNN: Journal Of Obstetric, Gynecologic & Neonatal Nursing</i> , 37(2), 137-145. doi:10.1111/j.1552-6909.2008.00221.x	Review the extent of STI/HIV among inner city African American women; and describe a nurse led 20 minute risk reduction intervention called Sister to Sister	564 Black women (mean age 27.2 years) selected based on recent STI/HIV test results in inner city Women's Health Clinic	Single descriptive study	Session measures HIV/STI risk assessment; completed questionnaires at baseline, immediately post-intervention, and at 3, 6, 12 month follow ups. At baseline and at 6 and 12 month follow ups, cervical swab specimens were obtained from participants and tested for Neisseria gonorrhoea and Chlamydia trachomatis. Those who tested positive were treated following CDC guidelines.	Study demonstrated that the Sister to Sister one-on-one skill building intervention and the group skill building intervention were both effective at reducing sexual risk behaviors and STI occurrence and that these effects were sustained at 12 month follow up. Women in the brief skill-building interventions reported greater frequency of condom use at 12-month follow-up compared to women in the control group (d= .24, p = .03). These women also were more likely to report using condoms the last time they had sex compared to those in the control group (d = .20, p = .034) and were less likely to test positive for STIs at the 12-month follow-up (d = .20, p = .03) The skill-building interventions resulted in positive changes on mediators of condom use (self-efficacy, and impulse control). The brief, nurse-led, one-on-one, and group skill-building interventions were effective in	VI

					reducing STI/HIV sexual risk behaviors and STI incidence among inner-city African American women.	
<p>Kalichman, S. C., Cain, D., Eaton, L., Jooste, S., & Simbayi, L. C. (2011). Randomized Clinical Trial of Brief Risk Reduction Counseling for Sexually Transmitted Infection Clinic Patients in Cape Town, South Africa. <i>American Journal Of Public Health, 101</i>(9), e9-e17. doi:10.2105/AJPH.2011.300236</p>	<p>To examine the effects of a brief counseling intervention designed to reduce HIV risk behaviors and sexually transmitted infections (STIs) among patients receiving STI services in Cape Town, South Africa.</p>	<p>414 men and 203 women receiving services at an urban STI clinic in Cape Town, South Africa.</p>	<p>Randomized controlled trial</p>	<p>Measures consisted of 254 items that gathered descriptive data(demographics, HIV risk history, alcohol and drug use), data on primary outcomes (STI diagnoses abstracted from medical records and behavioral outcomes, including sexual risk behaviors, preventive behaviors, and alcohol-related risk behaviors), and data on secondary outcomes (theoretical constructs such as HIV knowledge, alcohol outcome expectancies, and</p>	<p>63% reduction in unprotected vaginal and anal intercourse over a 6-month follow-up period, compared with the 30% reduction observed in an HIV education control condition. In addition, condom use among participants increased from 65% to 88%. The overall findings were promising and suggested that a brief single-session counseling intervention may be effective in reducing the risk of HIV and other STIs in South Africa.</p>	<p>II</p>

				self-efficacy for risk reduction).		
Kennedy, B. R., & Jenkins, C. C. (2011). Promoting African American women and sexual assertiveness in reducing HIV/AIDS: An analytical review of the research literature. <i>Journal Of Cultural Diversity</i> , 18(4), 142-149.	Reviewed literature that emphasized sexual assertiveness of African American women and the gap that exists in research literature on this population	Studies included were qualitative and quantitative that addressed sexual assertiveness and HIV risk, sexual assertiveness and communication, and women with low sexual assertiveness	Descriptive and qualitative studies evaluated	In these studies, sexual awareness scale, sexual assertiveness scale, condom influence questionnaire and Intimate relationships questionnaires were used.	Future research studies need to use models in validating sexual assertiveness interventions in reducing the risk of HIV/AIDS in African American women. HIV/AIDSs prevention interventions for future studies need to target reducing the risk factors of HIV/AIDS of African Americans focusing on gender and culture-specific strategies.	V
LeFevre, M. L. (2014). Behavioral counseling interventions to prevent sexually transmitted infections: u.s. Preventive services task force recommendation statement. <i>Annals Of Internal Medicine</i> , 161(12), 894-901. doi:10.7326/M14-1965	To set a guideline and recommend intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections (STIs).	All sexually active adolescents are at increased risk for STIs and should be counseled. Other risk groups that have been included in counseling studies are adults with current STIs or other infections within the past year, adults who have multiple sex	Randomized controlled trials that reviewed the evidence on behavioral counseling for sexual risk reduction in primary care, including interventions targeting risky sexual behaviors to prevent STIs	Measurement of STI, condom usage and STI knowledge	In adults, 19 trials, (n= 61,909) reported STI outcomes, 4 of which had multiple treatment groups with varying intervention intensity. High-intensity interventions resulted in a 30% reduction in the odds of acquiring an STI (OR, 0.70 [CI, 0.56 to 0.87]; I ² = 23%; k= 9). The pooled effects from trials of low- and moderate-intensity interventions did not show a reduction in the odds of acquiring an STI. However, 2 low- and 2 moderate-intensity interventions proved effective in preventing STIs. In	I

		partners, and adults who do not consistently use condoms.	(alone or in combination with other behaviors) in persons of any sexual orientation or level of reported sexual activity.		adults, 21 trials reporting sexual behavioral outcomes yielded mixed results, but high-intensity interventions were fairly consistent in reporting beneficial results. In a meta-analysis of 9 trials (with 11 comparisons) reporting condom use or related outcomes, the odds of condom use increased by 29% with high-intensity interventions (OR, 1.29 [CI, 1.13 to 1.48]; I ² = 0%; k= 4) and by 21% with moderate-intensity interventions (OR, 1.21 [CI, 1.00 to 1.46]; I ² = 28%; k= 4).	
Lopez, L., Otterness, C., Chen, M., Steiner, M., & Gallo, M. (2013). Behavioral interventions for improving condom use for dual protection. <i>Cochrane Database Of Systematic Reviews</i> , (10)	To identify behavioral interventions associated with improved condom use. Successful promotional or educational programs could be adapted for other groups or locations. Most interventions	Seven studies met eligibility criteria. All were randomized controlled trials; six assigned clusters and one randomized individuals. Sample sizes for the cluster-randomized trials ranged from 2157 to 15,614; the number of	Randomized controlled or unrandomized trials, were evaluated through methodological quality according to recommended principles. Information was examined by randomization	Outcomes were measured three or more months after the behavioral intervention began, to provide evidence of protected sex over a minimum time period. Self-reported data on protected or unprotected sex, due to the limitations of recall	Three trials examined other STI. The trials showed or reported no significant difference between study groups for pregnancy or HIV, but favorable effects were evident for some STI. Two showed a lower incidence of HSV-2 for the behavioral-intervention group compared to the usual-care group, with reported adjusted rate ratios (ARR) of 0.65 (95% CI 0.43 to 0.97) and 0.67 (95% CI 0.47 to 0.97), while HIV did not differ significantly. One also reported	I

	to promote condom use focus on prevention of HIV/STI.	clusters ranged from 18 to 70. Four trials took place in African countries, two in the USA, and one in England. Three were based mainly in schools, two were in community settings, one took place during military training, and one was clinic-based.	method, allocation concealment, blinding, and losses to follow up and early discontinuation . In cluster randomized trials, clusters were randomized all at once, making allocation concealment less of an issue.	and social desirability bias.	lower syphilis incidence and gonorrhea prevalence for the behavioral intervention plus STI management compared to the usual-care group. The reported ARR were 0.58 (95% CI 0.35 to 0.96) and 0.28 (95% CI 0.11 to 0.70), respectively. Another study reported a negative effect on gonorrhea for young women in the intervention group versus the control group (ARR 1.93; 95% CI 1.01 to 3.71). The difference occurred among those with only one year of the intervention.	
Moreno, R., Nabahan, H.Y., Ota, E., Wariki, W.M.V., Ezoe, S., Gilmour, S., & Shibuya, K. (2014). Structural and community-level interventions for increasing condom use to prevent the transmission of HIV	To assess the effects of structural and community-level interventions for increasing condom use in both general and high-risk populations to	Included randomized controlled trials (RCTs) including cluster-RCTs that compared either two or more alternative condom promotion strategies, or one	Randomized Control Studies	Primary Measures: HIV incidence/prevalence. STI incidence/prevalence Secondary Measures: Self-reported condom use (male or female condoms).	In the meta-analysis, there was no clear evidence that the intervention had an effect on either HIV seroprevalence or HIV seroincidence when compared to controls: HIV incidence (risk ratio (RR) 0.90, 95% confidence interval (CI) 0.69 to 1.19) and HIV prevalence (RR 1.02, 95% CI 0.79 to 1.32). The estimated effect of the intervention on other	I

<p>and other sexually transmitted infections. <i>Cochrane Database Of Systematic Reviews</i>, (7) doi: 10.1002/14651858.CD003363.pub3</p>	<p>reduce the incidence of HIV and STI transmission by comparing alternative strategies, or by assessing the effects of a strategy compared with a control.</p>	<p>condom promotion strategy with a control (i.e. no condom promotion strategy). Studies that included the following types of participants and satisfied this review's definition of 'community': general population (adolescents and adults); patients with STIs, including those living with HIV, or serodiscordant couples, or both; drug users, including injecting drug users (IDUs) as well as other drug-using</p>		<p>Self-reported number of sexual partners in the last year. Knowledge about HIV. Knowledge about STIs. Knowledge about condom use (both self-reported and tested). Self-efficacy (assessing self-confidence related to condom use and sexual practices after receiving the intervention through standard questionnaires).</p>	<p>outcomes was similarly uncertain: Herpes simplex virus 2 (HSV-2) incidence (RR 0.76, 95% CI 0.55 to 1.04); HSV-2 prevalence (RR 1.01, 95% CI 0.85 to 1.20); syphilis prevalence (RR 0.91, 95% CI 0.71 to 1.17); gonorrhoea prevalence (RR 1.16, 95% CI 0.67 to 2.02); chlamydia prevalence (RR 0.94, 95% CI 0.75 to 1.18); and trichomonas prevalence (RR 1.00, 95% CI 0.77 to 1.30). Reported condom use increased in the experimental arm (RR 1.20, 95% CI 1.03 to 1.40). In the intervention groups, the number of people reporting two or more sexual partners in the past year did not show a clear decrease when compared with control groups (RR 0.90, 95% CI 0.78 to 1.04), but knowledge about HIV and other STIs improved (RR 1.15, 95% CI 1.04 to 1.28, and RR 1.23, 95% CI 1.07 to 1.41, respectively). The quality of the evidence was deemed to be moderate for nearly all key outcomes.</p>	
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		populations; sex workers (male and female); men who have sex with men (MSM).				
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Appendix B

Consent Form

Study Title: Behavioral Intervention for the Prevention of STD in Minority Women

EBP Project Manager: Umparrys L. Witherspoon, RN, BSN, DNP Student

Purpose: I _____, understand that I am being asked to take part in a behavioral intervention project which measures STD (Sexually Transmitted Disease) Knowledge, sexual assertiveness, and attitude toward condom use to aid in the prevention of sexually transmitted disease.

Procedure: The EBP project manager will hold a group session and introduce the intervention to participants and give a survey which will collect demographic information. The educational intervention will include a video “He Said He Loved Me” and “Let’s Try Something New”, hands on condom application, and role playing for condom negotiation. There will also be open discussion for any questions. Participants will be notified through text message and email for data collection, which will be retrieved via SurveyMonkey 8-10 weeks after the intervention session to evaluate outcomes.

Risks: There are no physical risks to participating in the project. There may be some social and psychological risks associated with the information presented due to the use of an anatomically correct penis model for demonstration purposes. There are no invasive techniques used. This project is designed to increase STD Knowledge, sexual assertiveness, and attitude toward condom use. There will be collection of data from participants, before and after a behavioral intervention.

Benefits: Participants in the project will be engaging in group, classroom type learning about how to increase knowledge and vulnerability regarding the impact of engaging in risky sexual behavior and to provide information to reduce those risks; to increase participant’s confidence skills in negotiating condom use and to ensure that condoms are used correctly and consistently; to bolster participants’ attitude and beliefs about engaging in safer sex behaviors.

Voluntary participation/withdrawal: I understand that participating in this project is my choice, and I am free to stop at any time without any consequences.

Costs and Payments: In order to recognize your contribution to this study, you will receive free condoms and \$10 will be given after the initial survey and the educational intervention. Eight to ten weeks after the intervention, you will receive \$10 for the completion of the post-intervention survey. It will not cost you anything to participate in this study.

Questions: If I have any questions about being in the project/study now or in the future, Umparrys Witherspoon may be contacted by phone at 219-746-1152. If I have any questions about my rights as a project participant, Rasha Abed, Chair of the Institutional Review Board at Valparaiso University College of Nursing and Health Professions may be contacted at 219-464-5798.

Confidentiality/anonymity: Although the information and answers I give may be used and reported by the researcher, my name and other facts that would identify me will be kept strictly confidential. The questionnaires will be kept in a lock box in which only the project manager has access. The project manager will transfer all statistical data to a password-protected computer. Data will be stored for three years after completion of the project. Once all data analysis has been completed, the questionnaires will be destroyed.

Consent to participate in the research study: I have read or have been read all of the above information about this project, the procedure, possible risks, and potential benefits to me, and I understand them. All of my questions have been answered. I give my consent freely, and offer to participate in this project.

Participant signature

Date

Project manager signature

Email address: _____

Cell Phone Number: _____

Appendix C

Sister
TO
Sister

**RESPECT YOURSELF!
PROTECT YOURSELF!
BECAUSE YOU ARE WORTH IT!!!**

Participant Guide

An HIV/STI Risk-Reduction Program for Women

DO YOU KNOW THAT IN THE UNITED STATES...

- 80% of women with AIDS were infected through having sex with an infected man without using a condom*
 - 26% of all AIDS cases in the US are among females* and
 - 64% of all females in the US with AIDS are African American*
 - AIDS is the leading cause of death among African American women between the ages of 25 and 34 years.*
- *CDC Facts 2003-2006

DO YOU KNOW THAT IN _____ ...

AIDS cases are the highest in the following zip codes:

_____ / _____ / _____ / _____ / _____ / _____



DID YOU KNOW THAT...

HIV IS THE VIRUS THAT CAUSES AIDS?

HIV is...

HUMAN IMMUNODEFICIENCY VIRUS

HIV is found in...

- Blood
- Semen
- Vaginal secretions
- Breast milk

HIV is spread by...

- Sexual intercourse (vaginal, oral & anal)
- Sharing needles and works
- Mother to her unborn child or breastfeeding

AIDS is...

ACQUIRED IMMUNE DEFICIENCY SYNDROME

HIV is **not** spread through casual contact such as...

- Touching someone who is infected
- Sharing food or utensils
- Donating blood
- Tears, saliva, sneezes, coughs, mosquitoes, toilet seats or swimming pools

Protecting yourself is respecting yourself.

DO YOU KNOW THAT...

There is no cure for HIV or AIDS.

Once infected with HIV, a person is infected for life.

Having an STD increases a woman's risk of getting infected with HIV.

If a woman with HIV is pregnant, there is a 25-30% chance that her baby will be born infected if she is not taking HIV medication.

Drugs and alcohol use can increase your sexual risk for getting infected with HIV/STDs.

Using LATEX or Polyurethane condoms significantly reduces the chances of getting HIV.

HIV testing is a routine part of good healthcare.

Sister
TO
Sister
4



WOMEN GET HIV BECAUSE THEY...

Have unprotected sex (sex without a condom).

Share needles to inject drugs.

Have unprotected sex under the influence of drugs and alcohol.

Do not feel they have the power to get their partner to use condoms or are afraid of their reaction.

Do not know enough about HIV nor how to prevent it.

Trust their sexual partners and believe their sexual partners are not infected, are clean, and faithful.

Think HIV won't happen to them.

Protecting yourself is respecting yourself.

5

THE MYTHS & FACTS ABOUT HIV & CONDOMS

Myth: "I am not at risk for getting HIV."

fact: Anyone can get HIV, especially if you have sex without a condom.

Myth: "My partner will leave me if I ask him to use a condom."

fact: Are you sure? There are ways that condoms can be fun and pleasurable. Try new and fun things with him.

Myth: "Being high does not put me at risk for HIV."

fact: Using drugs and alcohol puts you at risk because it clouds your judgement and causes you to engage in sex without a condom.

Myth: "If I have only one partner, I don't need to use condoms."

fact: You may have only one partner, but your partner might be sleeping with someone else other than you.

Myth: "If I have anal sex, I cannot get HIV."

fact: Having anal sex actually increases your risk of getting HIV because the penis can tear little veins, transmit blood and the virus.

Myth: "I can't get HIV infection from oral sex."

fact: If you perform oral sex on any man that has HIV then you are at risk for getting HIV. If you perform oral sex on someone, then you must use a condom.

Myth: "Having an STD does not increase my risk for HIV."

fact: STDs can cause vaginal lesions/warts which make it easier for HIV to enter the body.

Myth: "I can tell if my partner has HIV."

fact: You cannot tell by the way a person looks if they have HIV or AIDS.

Myth: "Sex does not feel as good when you use a condom."

fact: With a little imagination today's lubricated thin latex or polyurethane condoms can actually increase sexual feelings.

Myth: "I don't need to use condoms, I tested negative for HIV."

fact: Testing negative does not mean you can't get HIV in the future. Always use a condom.

Myth: "My partner will think that I am unfaithful if I ask him to use a condom."

fact: It is not a matter of being unfaithful. It is a matter of caring for yourself and your partner.

Myth: "My partner won't think I love him/her if I use condoms."

fact: Sister, by using a condom you are protecting and respecting yourself. Let your partner know that you love him/her but you also love yourself.

Myth: "Carrying condoms means that I am looking for sex."

fact: Being prepared is respecting yourself and protecting yourself.




Sister

TO

Sister

6

7



HOW TO GET

MALE CONDOMS

- You can get condoms from **Family Planning Clinics** and **Your Local District Health Center** for free. Don't be shy or embarrassed. Ask questions **Because You Are Worth It!!!**
- Get a supply of **LATEX**, or polyurethane reservoir (nipple-end), lubricated condoms. The lubricant should be water based.
- When getting condoms, check expiration date on outer package. Do not use or buy condoms that are out of date.
- Do not expose condoms to heat. Store in a cool, dry place.

Sister
TO
8 Sister

HOW TO USE

MALE CONDOMS


- Open the condom package carefully so that you do not tear the condom.
- Begin to put the condom on as soon as the penis is erect, before any sexual contact.
- Hold the condom by the last 1/2 inch at the tip, making sure to squeeze out any air.
- Put the condom on the tip of the penis. Unroll the condom to the base of the penis. Smooth out any extra air.
- Check for the rim of the condom during sex to make sure the condom is not slipping off.
- Be sure your partner withdraws slowly after climax (ejaculation) while penis is still erect. Hold the condom firmly by the rim at the base while withdrawing.
- Have your partner remove the condom by rolling it off. Do this well away from your body.
- Throw it away. Never reuse a condom.
- Use water based lubricants or KY jelly as lubricant. Never use Vaseline, baby oil or any other greasy substance as a lubricant. It can destroy the condom.

Protecting yourself is respecting yourself.

9

Sister
TO
Sister


HOW TO MAKE CONDOMS FUN AND PLEASURABLE



- Don't break the mood, keep condoms close by so you can reach them easily.
- Think up sexual fantasies when using condoms.
- Talk and act sexy when applying the condom.
- Put the condom on with your mouth.
- Use different colored or different textured condoms.
- Add extra lubricant in the tip of the condom or on the tip of the penis to increase sensitivity to your partner and yourself.
- Have a sense of humor. Be silly, make jokes.


GOOD THINGS ABOUT CONDOMS

- They make sex safer by protecting you from pregnancy and sexually transmitted diseases, including HIV.
- They make foreplay better.
- They make you feel good because you are taking care of yourself and your partner. You're doing the right thing.
- They can save your life.



10

HERE ARE SOME OTHER IDEAS ABOUT HOW TO TALK TO YOUR PARTNER:



- Think about what you want to say ahead of time.
- Sort out your own feelings about using condoms before you talk with your partner.
- The best time to discuss condom use is before the first kiss, and certainly before foreplay or touching.
- Decide how you want to start the conversation. You might say, "I need to talk to you about something that is important to both of us," or "I've been hearing a lot lately about safe sex. Have you ever tried condoms?" or "I kind of feel embarrassed, but I care too much about you not to talk about this."
- You can take out the condom and show it to him.
- Remember, talking honestly and openly can be helpful and correct some common misunderstandings.
- Once you both agree to use condoms, do something positive and fun. Go to the store together. Buy lots of different brands and colors. Plan a special day when you can experiment. Just talking about how you'll use all the condoms can be a turn on.

SISTERS, WE CAN AVOID GETTING HIV BY...

- ABSTAINING** from sex (vaginal, oral or anal).
- ALWAYS** using latex condoms.
- NEVER** having sex while high on drugs or alcohol because they cloud your judgment.
- NEVER** sharing or renting injection drug needles and works.
- PRACTICING** monogamy (you and your partner only have sex with each other).

Sister
TO
Sister

12

Sister
TO
Sister

For more information CONTACT:

CDC National STD & AIDS Hotline	800-227-8922
Project Inform National HIV/AIDS Treatment Hotline	800-822-7422
AIDS Hotline In Spanish	800-344-7432
National Domestic Violence Hotline	800-799-7233
CDC National Prevention Network	800-458-5231
AIDSinfo	800-HIV-0440
Rape Abuse and Incest National Network	800-656-HOPE
National Institute on Drug Abuse (NIDA) Hotline	800-662-4357

For more information about *Sister to Sister*, Contact:

Select Media www.selectmedia.org info@selectmedia.org

Appendix D

Participation in this study is voluntary. All answers will be kept confidential. All information obtained on this form will only be used for purposes of this study. You do not have to answer all of the questions and can skip questions if you like. By completing this survey, you are giving informed consent to participate in this study.

For each of the following items, mark **A** if you **agree** with the statement, **D** if you **disagree** with the statement, or **U** for **undecided**.

1. The proper use of a condom could enhance sexual pleasure. **A D U**
2. Condoms ruin the natural sex act. **A D U**
3. Condoms interfere with romance. **A D U**
4. Generally, I am in favor of using condoms. **A D U**
5. "Safer" sex reduces the mental pleasure of sex. **A D U**
6. It is a hassle to use condoms. **A D U**

For each statement below, please circle true (T), false (F), or I don't know (DK). If you don't know, please do not guess; instead, please circle DK.

1. There is a cure for Gonorrhea. **T F DK**
2. Human Papillomavirus (HPV) is caused by the same virus that causes HIV.
T F DK
3. It is easier to get HIV if a person has another Sexually Transmitted Disease. **T F DK**
4. A woman who has Genital Herpes can pass the infection to her baby during childbirth.
T F DK
5. Human Papillomavirus (HPV) can lead to cancer in women. **T F DK**
6. A person who has Genital Herpes must have open sores to give the infection to his or her sexual partner. **T F DK**

. Circle N for Never, S for Sometimes, H for Half the time, U for Usually, and A for Always.

1. I have sex without a condom or latex barrier if my partner doesn't like them, even if I want to use one. **N S H U A**
2. I have sex without using a condom or latex barrier if my partner insists, even if I don't want to. **N S H U A**
3. I make sure my partner and I use a condom or latex barrier when we have sex. **N S H U A**
4. I have sex without using a condom or latex barrier if I want to, if my partner wants. **N S H U A**
5. I insist on using a condom or latex barrier if I want to, even if my partner doesn't like them. **N S H U A**
6. I refuse to have sex if my partner refuses to use a condom or latex barrier. **N S H U A**

Thank you for participating in this study. All statistical data analyzed for the purposes of this study will be aggregated data to prevent disclosure of information about any individual.

Sexually Transmitted Disease Knowledge Questionnaire: General Knowledge
Jaworski, B. C., & Carey, M. P. (2007). Development and Psychometric Evaluation of a Self-Administered Questionnaire to Measure Knowledge of Sexually Transmitted Diseases. *AIDS and Behavior*, 11, 557-574.

Sexual Risks Scale: Attitude toward Condom Use Subscale
DeHart, D., & Birkimer, J. C. (1997). Trying to practice safer sex: Development of the Sexual Risks Scale. *The Journal of Sex Research*, 34 (1), 11-25.

Sexual Assertiveness Scale: Contraception/STD Prevention Subscale
Morokoff, P., Quina, K., Harlow, L., Grimley, D., Gibson, P., and Burkholder, G. (1997). Sexual Assertiveness Scale (SAS) for Women: Development and validation. *Journal of Personality and Social Psychology*, 73 (4) 790-804.

Please answer the following questions:

1. Name _____
2. Age _____
3. Highest Grade Level Completed _____
4. Single Married Divorced
5. Cell Phone Number _____ Home Phone Number _____
6. Email Address _____

Thank you for participating in this study. All information is confidential and will not be shared with any outside sources. All statistical data will be analyzed for the purposes of this study and will be aggregated data to prevent disclosure of information about any individual.

