IMPROVING STAFF COMFORT WITH AND DELIVERY OF BEHAVIORAL COUNSELING INTERVENTIONS TO ADOLESCENT AND YOUNG ADULT MALES PRESENTING FOR SEXUALLY TRANSMITTED INFECTION SCREENING

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A project submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice in the Family Nurse Practitioner program in the School of Nursing.

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ABSTRACT

Kelly W. Bates: Improving Staff Comfort With and Delivery of Behavioral Counseling Interventions to Adolescent and Young Adult Males Presenting for Sexually Transmitted Infection Screening
(Under the direction of Eric Hodges)

Background: More than two-thirds of sexually transmitted infections (STI) occur in Americans under age 25. There are nearly 20 million new STIs each year and this number is increasing. Several organizations recommend including STI screening and behavioral counseling in every adolescent health appointment to reduce STI risk. However, adolescents and young adults (AYA), particularly males, do not consistently receive this care. This project aimed to improve the frequency and quality of behavioral counseling delivered to AYA males at a Health Department in North Carolina through development of an evidence-based staff workshop.

Methods: This project was developed using quality improvement methodology. A chart review was completed of AYA males who presented for STI screening during a three-month period. These data were used to design the workshop. Attendees were asked to complete one pre- and two post-surveys to assess their perceptions of this curriculum. An additional chart review was completed after the workshop to assess for changes in staff documentation of behavioral counseling interventions delivered to AYA males presenting for STI screening in the 11 weeks after the workshop.

Results: The initial chart audit highlighted potential areas for future staff training, including improving documentation practices, distribution of free condoms, and alcohol consumption

classification. Overall, staff survey responses were positive and suggested that staff were receptive to incorporating behavioral counseling into patient encounters. After the workshop, there was a statistically significant improvement in the proportion of patients with documentation on their condom use ($z = -2.64$, $p = 0.0042$, one-tailed) and in the proportion of patients who were offered free condoms χ^2 (2, N = 52) = 11.27, p = .004; ($z = -2.64$, $p = 0.0042$, one-tailed). There was also a significant decrease in the proportion of patients who had an unclassifiable alcohol consumption level χ^2 (4, N = 39) = 17.29, p = .002; ($z= 3.33$, $p= 0.00043$, one-tailed).

Conclusions: Healthcare professionals should receive training as this has been demonstrated to improve the effectiveness of behavioral counseling. Importantly, this project suggests that HCPs are receptive to receiving training and that such training may improve the delivery of STI risk reducing interventions.

To my husband and parents who have given me continuous love, patience and support.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREIVAITONS

AAFP	American Academy of Family Physicians
AAP	American Academy of Pediatrics
ACOG	American Congress of Obstetricians and Gynecologists
AHRQ	Agency for Healthcare Research and Quality
ARRM	AIDS Risk Reduction Model
AYA	Adolescent and Young Adult
CDC	Centers for Disease Control and Prevention
DNP	Doctor of Nursing Practice
HBM	Health Belief Model
HCP	Health Care Professional
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
ICSI	Institute for Clinical Systems Improvement
LGBT	Lesbian Gay Bisexual and Transgender
MSM	Men who have Sex with Men
NICE	National Institute for Health and Care Excellence
OCHD	Orange County Health Department
SAHM	The Society for Adolescent Health and Medicine
SAMHSA	Substance Abuse and Mental Health Services Administration
SPSS	Statistical Package for the Social Sciences
SRH	Sexual and Reproductive Health

STI	Sexually Transmitted Infection
STD	Sexually Transmitted Disease
US	United States
USPSTF	United States Preventive Services Task Force
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

Introduction

The American adolescent and young adult (AYA) population constitutes one-quarter of sexually active Americans, yet accounts for more than two-thirds of new sexually transmitted infection (STI) cases and 30% of new human immunodeficiency virus (HIV) cases (Satterwhite et al., 2013; Centers for Disease Control and Prevention [CDC], 2013b). There are an estimated 19.7 million new STIs each year in the United States (US) with a prevalence of 110 million (Satterwhite et al., 2013; CDC, 2016). Each year, one out of every four teens contracts a STI and one out of every two sexually active people will contract an STI by age 25 (CDC, 2013c; Cates, Herndon, Schulz & Darroch, 2004).

According to the CDC (2015), all three nationally reported STIs (chlamydia, gonorrhea and syphilis) increased for the second year in a row between 2014 and 2015, the latest year for which data is available. Over 1.5 million cases of chlamydia were reported during 2015, which is the highest number of annual cases of any disease ever reported to the CDC and a 6% increase from the previous year. Increases in gonorrhea (13%) and primary and secondary syphilis (19%) were also observed between 2014 and 2015. These increases are largely attributed to increasing rates among AYA males across all three diseases (CDC, 2016).

In 2014, 28% of the 1,351 newly diagnosed HIV infections in North Carolina were among people age 13 to 24 years old (North Carolina HIV/STD Surveillance Unit, 2016). In North Carolina, 50% of males diagnosed with HIV in 2015 were between the ages of 13 and 29,

although this age group accounts for less than one quarter of males in the state (North Carolina HIV/STD Surveillance Unit, 2016; U.S. Census Bureau, 2015). Syphilis infections are rapidly increasing in North Carolina, with a 64% increase in cases from 2014 to 2015 (North Carolina HIV/STD Surveillance Unit, 2016). Nationally, over 90% of primary and secondary syphilis cases occur in males (CDC, 2016). Gonorrhea and chlamydia infections have also increased in North Carolina between 2014 and 2015 and North Carolina's gonorrhea and chlamydia rates are higher than the U.S. national rates (North Carolina HIV/STD Surveillance Unit, 2016).

Certain behaviors, including improper or inconsistent use of barrier methods, having sex while using alcohol or drugs, having multiple sex partners, a previous STI diagnosis and having sexual partners who have or are at high risk for an STI, increase a person's risk for STIs, HIV, and unplanned pregnancy (O'Connor et al., 2014). These behaviors are deemed high-risk sexual behaviors (U.S. Department of Health and Human Services, 2014a; O'Connor et al., 2014).

Problem Statement

Several organizations, including the US Preventative Services Task Force (USPSTF), CDC, American Academy of Pediatrics (AAP), American Congress of Obstetrics and Gynecology (ACOG) and The Society for Adolescent Health and Medicine (SAHM) recommend including sexual healthcare in every adolescent health appointment, and recommend STI screening (including risk assessments and laboratory tests) and behavioral counseling for the American AYA population to reduce STI risk (O'Connor et al., 2014; AAP, 2013; ACOG, 2009, ACOG, 2014; SAHM, 2014). Despite these recommendations, risk assessment, laboratory tests and behavioral counseling are not being consistently provided to AYA. For example, among sexually active AYA who have never received STI testing in their lifetime, 32.5% report that

their medical provider did not recommend testing (Cuffe, Newton-Levinson, Gift, McFarlane & Leichliter, 2016).

Additionally, research demonstrates that this care is not equitably delivered to males versus females. A retrospective chart review demonstrated that healthcare providers (HCPs) are three times more likely to take a sexual health history from AYA females than AYA males and that they are twice as likely to advise AYA females on condom use compared to AYA males (Lafferty et al., 2002; Lafferty, Downey, Shields, Holan & Lind, 2001). Analyses of a national youth survey demonstrated that AYA females are significantly more likely to report receiving STI testing in the last 12 months than AYA males (16.6% vs. 6.1%). Females age 25 years and younger are also more likely than their male counterparts to be screened for STIs and HIV during health visits not specific to STIs (Cuffe et al., 2016). The gender disparity that exists in sexual healthcare among American AYA suggests that the sexual health needs of AYA males are going unmet and that this population does not have adequate access to risk assessments and behavioral counseling that can positively impact sexual and reproductive health (SRH) across the lifespan (Marcell, Wibbelsman & Seigel, 2011). This inadequate counseling and screening may contribute to a reservoir of STIs, which promotes a higher incidence of STIs among all Americans.

Despite recommendations to deliver SRH services and behavioral counseling to AYA males, HCPs continue to encounter multiple barriers. First, while females often receive bundled reproductive health care (birth control, pelvic exams, pap smears, prenatal care), there is insufficient research on the necessary components and protocols for evidence-based sexual healthcare for males (Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014). Second, the number of health appointments that males have

declines during adolescence and shifts from routine to more time-limited acute visits, which likely contributes to a decrease in the provision of SRH care (Marcell, Klein, Fischer, Allan & Kokotailo, 2002). Adolescent males are less likely than adolescent females to attend healthcare appointments when they become sexually active. This increases adolescent males' risk for morbidity and mortality associated with risky sexual behavior and signals the need for efforts to increase AYA males' awareness of SRH needs and their utilization of healthcare once they become sexually active (Marcell, Matson, Ellen & Ford, 2009).

Evidence suggests that providers with more extensive knowledge and training in behavioral counseling may provide counseling that more effectively mitigates risk and decreases STI incidence (Kamb et al., 1998; Jemmott, Jemmott & O'Leary, 2007). The National Network of STD/HIV Prevention Training Centers (2011) recommends that counseling be provided by staff who are trained in basic risk assessment and risk reduction client-centered counseling methods. Although counseling interventions can be delivered by a variety of HCPs, specialized training is necessary to promote successful STI risk reduction (Brookmeyer, Hogben & Kinsey, 2016). The World Health Organization (WHO) (n.d.) recommends that counselors receive ongoing training in counseling and education.

Purpose of the Project

The purpose of this Doctor of Nursing Practice (DNP) project was to improve the frequency and quality of SRH behavioral counseling delivered to AYA males through creation of an evidence-based workshop for staff at the Orange County Health Department (OCHD). The workshop provided staff with an overview of the SRH needs of AYA males and included evidence-based behavioral counseling training for staff at the OCHD's two clinic locations. The staff education was developed in response to the risk behaviors that are most prevalent in the

male AYA patients of the OCHD. High-risk behaviors that are routinely identified during STI visits were the focus of the behavioral counseling training. Through development of standardized and streamlined questions and statements to correspond with the OCHD's existing risk assessment, staff were expected to experience a low degree of difficulty, disruption and intricacy with the intervention.

Practice Question

This DNP project assessed whether or not health department staff who attended the workshop demonstrated pre- and post-intervention changes in:

- The perceived advantages and feasibility of delivering SRH behavioral counseling to AYA males. An adapted attitudes and belief measure based on a valid and reliable tool developed by Pankratz, Hallfors & Cho (2002) was used to assess staff perceptions of attributes of the Project's behavioral counseling education and toolkit.
- The rates at which staff document behavioral counseling to AYA males who present to OCHD for STI screening in the two months post-intervention. Pre- and post-implementation chart audits were conducted to assess for this change.

CHAPTER 2: REVIEW OF THE LITERATURE

Search Strategy

A literature search was conducted on PubMed using the following search terms: ((((((gender* OR male* OR female* OR man OR men* OR woman* OR women* OR boy* OR girl*))) AND ((disparit*[Title] OR disparat*[Title] OR inequal*[Title] OR unequal*[Title] OR equal*[Title] OR differen*[Title]))) AND ((teen*[Title] OR "young adult"[Title] OR adolesc*[Title] OR minor[Title] OR minors[Title] OR preteen*[Title]))) AND (((sexual[Title] OR reproductive[Title]) AND (health*[Title] OR practice*[Title] OR belief*[Title] OR believ*[Title] OR behav*[Title])))). This search yielded 65 results, of which one is included in this review. Additionally, a literature search was conducted on PsychInfo using the following search terms: ((gender* OR male* OR female* OR man OR men* OR woman* OR women* OR boy* OR girl*)) AND TI ((disparit* OR disparat* OR inequal* OR unequal* OR equal* OR differen*)) AND ((teen* OR "young adult" OR adolesc* OR minor OR minors OR preteen*)) AND TI (((sexual OR reproductive) AND (health* OR practice* OR belief* OR believ* OR behav*))). This search yielded 183 results, of which five were included in this review. Inclusion criteria were as follows: English language, subjects include AYA males in the United States and published since 2000. Exclusion criteria included studies with all females or all men who have sex with men (MSM) subjects. Additional sources were found utilizing ancestry search methodology, reviewing reference lists in order to identify additional relevant studies.

Limitations of the Search

The limitations of this search were significant. First, the search results varied widely in their focus, despite multiple consultations with a nursing librarian. Many studies utilized all female, all MSM, or all lesbian, gay, bisexual, transgender (LGBT) samples. While MSM and LGBT clients certainly were not excluded from this DNP project, they were not the primary focus and, as such, these studies lacked external validity since the subjects were not representative of the OCHD patient population. An additional search strategy utilized in this literature search was ancestry searching, which helped to identify articles with a focus that included the male AYA population.

Second, much of the research was outdated and published over 15 years ago. This field is highly culture-dependent. Several recent key changes have impacted care delivery, including the Affordable Care Act affording coverage for preventive SRH services for the first time, the impact of technology on high-risk sexual behaviors and the recommendation of HPV vaccination of males (Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014). The lack of current literature, which has been noted by experts in male sexual health, was a significant limitation (Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014).

Overall, research addressing the SRH needs and best practices for AYA male was lacking. The dearth of research, professional guidance, and training is well recognized (Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014; Marcell et al., 2011).

Overview of the Literature

The literature consistently demonstrated a lack consistent delivery of SRH services to the AYA population, and an even greater lack of SRH services to AYA males. The high-risk status of AYA generally and AYA males specifically has been well established in the literature. There is a lack of evidence or standardization of care to best guide practitioners; furthermore, the evidence and guidelines that do exist are not being consistently implemented by HCPs. AYA males are negatively impacted by this lack of evidence and lack of evidence-based care. This results in a significant missed opportunity to improve the SRH of AYA males. Significant barriers exist, but improved provider training and increased and improved tools and guidelines for the SRH care of AYA males are essential to improving the delivery of SRH care to AYA males.

High Risk Status

The vulnerability and high-risk status of the AYA population has been clearly demonstrated. It is estimated that of the 20 million new STI cases each year in the U.S., more than two-thirds are within the AYA population (Centers for Disease Control and Prevention, 2013b). Contrary to the common misconception that males are less likely to have an STI, recent analysis by the CDC reveals that the incidence of STI infections is approximately equal among young men and young women (49 vs. 51 percent, respectively) (CDC, 2013b). Importantly, AYA are likely to have sexual partners from this high-risk pool and are likely to engage in high-risk sexual behaviors (Weinstock et al., 2000; Senn & Carey, 2011).

The 2009 Youth Risk Behavior Survey found that 46% of high school students have engaged in sex, with 34% of those who have had sex in the last three months not using a condom during their last sexual intercourse (Eaton et al., 2010). Given that people infected with STIs are

often asymptomatic, STI status is often unknown (Marcell et al., 2011). Nearly 70 percent of people infected with gonorrhea or chlamydia have no symptoms, but are still able to infect others (WHO, 2011). This contributes to high rates of repeat gonococcal and chlamydial infections, with a systematic review reporting a median rate of reinfection within one year of 11.3 and 7.0 percent for gonorrhea and chlamydia, respectively (Fung, Scott, Kent & Klausner, 2007).

An important high-risk behavior in this demographic is alcohol and drug use before sex, which is associated with increased engagement in other high-risk behaviors and with increased STI risk (Eaton et al., 2010; Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014; U.S. Department of Health and Human Services, 2014). AYA males self-report more alcohol-related sexual dis-inhibition than females (Hesse & Tutenges, 2008). Newman & Zimmerman (2000) found that among surveyed African-American youth, males were more likely than females to engage in high-risk sexual behavior, including more alcohol and drug use before sexual intercourse, having multiple sex partners, and inconsistent condom use. During adolescence, youth are developing their ability to think abstractly, ponder the long-term consequences of their actions, recognize personal risk and evaluate information (Rice & Dolgin, 2008). These features of the adolescent developmental stage have important implications for both risk behaviors and for best practices to mediate risk.

Best Practice

Many organizations, including the USPSTF, CDC and AAP, recommend including sexual health in every adolescent health appointment (O'Connor et al., 2014, CDC, 2010a, AAP, 2013, Hagan et al., 2008). Recommended services include sexual health history and risk assessment, physical exam, laboratory tests, and behavioral counseling and risk reduction (Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014).

These recommendations are summarized in Table 1. The USPSTF concluded that there was moderate certainty (B recommendation) that behavioral counseling for sexually active adolescents and adults at risk for STIs has a net benefit on STI incidence rates; it therefore recommends behavioral counseling for all adolescents and adults at increased risk for STIs (USPSTF, 2008). The CDC provides additional guidance for providers to inform patients about STI risk reduction, including abstinence, barrier method use, and minimizing the number of sexual partners. Such guidance should be empathetic, non-judgmental, and personalized to the patient's risk (CDC, 2010b). In an evidence synthesis prepared for the Agency for Healthcare Research and Quality (AHRQ), O'Connor et al. (2014) note that there is consensus that behavioral sexual risk reduction counseling should include: education on HIV and STI risk and prevention strategies, techniques to enhance motivation and promote successful behavior change and assistance with skill development to reduce risky behaviors and increase protective behaviors. In their review of 16 high-intensity behavioral counseling interventions, the odds of re-acquiring an STI were reduced by 62% in adolescents and condom use was increased in both adolescents and adults (O'Connor et al., 2014).

Table 1
Recommendations of Health Care Organizations

Organization and Citation	Recommendation
American Academy of Family Physicians (AAFP)	AAFP recommends high-intensity behavioral counseling for all sexually active adolescents and adults at high risk to decrease the risk of STIs. AAFP does not make a recommendation for adolescents who are not yet sexually active nor for adults with any increased risk for STIs due to insufficient evidence (AAFP, 2012)
American Academy of Pediatrics (AAP)	AAP makes several recommendations for pediatric providers, including behavioral counseling for adolescents and actively supporting and encouraging consistent and correct condom use as part of anticipatory guidance for adolescents (Hagan, Shaw & Duncan, 2008; AAP, 2013;) .
American Congress of	ACOG recommends contraception and STIs are discussed

Obstetricians and Gynecologists (ACOG)	during initial adolescent reproductive health visits between the ages of 13 and 15 years (Committee on Adolescent Health Care, 2014). ACOG further recommends applying the principles of motivational interviewing to sexual behavior practices to elicit behavior change and improve patient-provider communication (Committee on Health Care for Underserved Women, 2009).
Centers for Disease Control and Prevention (CDC)	The CDC recommends that all providers routinely obtain a patient's sexual history and provide risk reduction counseling and prevention strategies (CDC, 2010b). The CDC also recommends HIV prevention counseling in clinics serving high-risk patients (such as STI clinics and health departments) (CDC, 2010a).
Institute for Clinical Systems Improvement (ICSI)	ICSI recommends that adolescents receive behavioral counseling regarding sexual behaviors to prevent STIs beginning at age 12 (Wilkinson et al., 2013b). ICSI notes that there is good evidence to support the efficacy of multiple-visit interventions to reduce STI incidence among sexually active adolescents. ICSI concludes that there is insufficient evidence to recommend less intensive behavioral counseling interventions or counseling interventions for low-risk patients (Wilkinson et al., 2013a; Wilkinson et al., 2013b).
National Institute for Health and Care Excellence (NICE)	NICE recommends screening and identifying those at high risk for STIs, followed by one-to-one structured discussions with a professional trained in sexual health. Practitioners should provide one-to-one sexual advise on how to prevent and get tested for STIs (NICE, 2007).
The Society for Adolescent Health and Medicine (SAHM)	SAHM recommends encouraging adolescents to delay sexual debut and adopt safe sex practices to prevent unintended pregnancy and recommends provision of STI and HIV education, counseling and services to all adolescents (SAHM, 2014).
United States Preventative Services Task Force (USPSTF)	The USPSTF recommends that all sexually active adolescents and adults at increased risk for STIs receive intensive behavioral counseling (O'Connor et al., 2014).

Current Practice

Research consistently identifies that a significant proportion of AYA males are not receiving the recommended SRH services, including history, physical exam, laboratory tests and counseling (Marcell et al., 2011; Marcell and the Male Training Center for Family Planning and

Reproductive Health, 2014; Goyal, Witt, Hayes, Zaoutis & Gerber, 2014). The high-risk status of this population is increased by the low rates at which AYA are captured in care. In a secondary analysis of data from the National Ambulatory Medical Care Survey, teenagers (age 13-18) had the lowest rates of outpatient visits. Furthermore, health counseling took place in just 39% of these visits and HIV/STI prevention counseling took place in just 5% of these visits (Ma, Wang & Stafford, 2005).

National data collected in the Young Adult Health Care Survey found that nearly half of adolescents reported not receiving guidance on age-appropriate topics such as sexual activity, contraception and STIs during their most recent health care visit (Chung, Lee, Morrison & Schuster, 2006). In a household-based survey of males aged 15-44 years, less than one in five reported discussions about HIV and pregnancy prevention with their HCP in the last year (Chabot, Lewis, de Bocanegra & Darney, 2011). National survey data demonstrates that among males aged 15-44 years, 19% report an STI test in the last year and 15% report an HIV test in the last year. Survey respondents also reported low levels of counseling by a HCP, with just 11% receiving counseling for STIs, 11% for HIV and 10% for contraception use in the last year (Marcell et al., 2016). In focus groups of AYA urban minority males, 90% reported being sexually active, yet 30% reported receiving no STI/HIV counseling by a HCP (Pilgrim et al., 2014).

AYA males are interested in receiving this care. In a clinic-based survey to examine AYA males' willingness to discuss 11 SRH topics, almost all participants (84-98%) were willing to talk about all SRH topics, with the majority (52-88%) preferring that the provider initiate these discussions (Same, Bell, Rosenthal & Marcell, 2014). Similarly, in a sample of males age 16-28

seeking care at family planning clinics, 40% reported wanting to learn more about STI prevention and risk reduction (Weinman, Buzi & Smith, 2011).

These findings indicate that providers should routinely and proactively promote SRH conversations with AYA male patients (Weinman, Buzi & Smith, 2011). Despite multiple recommendations and guidelines from prominent professional organizations regarding the importance of SRH screening and counseling in every adolescent appointment, and documented interest from patients in receiving this care, providers are failing to provide this care (O'Connor et al., 2014, CDC, 2010a, AAP, 2013, Hagan et al., 2008).

Gender Disparity

Burstein et al. (2003) found that 26% of males report HCP counseling on STI, HIV or pregnancy prevention at their last preventive visit compared to 43% of females. Chart reviews have demonstrated HCPs are three times more likely to take a sexual health history from AYA females compared to AYA males and that they are twice as likely to advise an AYA female on condom use compared to an AYA male (Lafferty et al., 2002; Lafferty et al., 2001).

While females often receive bundled reproductive health care (birth control, pelvic exams, pap smears, prenatal care), there is insufficient research on the necessary components and protocols for evidence-based SRH services for males (Marcell et al., 2002). Males stand to benefit from improved services to reduce the risk of unplanned pregnancy and STI or HIV contraction. The lower rates at which AYA males are captured in SRH care represents an important missed opportunity (Rice, Salomon & Fine, 2014).

Barriers to Care

Despite recommendations for primary care providers to include sexual health in all appointments with AYA males (including both acute visits and routine health checks), HCPs

continue to encounter multiple barriers. AYA males are less likely to seek routine check-ups (Rice et al., 2014). The number of health appointments that males have declines during adolescence and shifts from routine to more time-limited acute visits, which likely contributes to a decrease in the provision of sexual health care (Marcell et al., 2002).

Additionally, AYA are less likely to seek SRH services due to a lack of confidentiality and privacy. Only 40% of patients aged 12-17 years old have time alone with the provider during primary care visits (Irwin, Adams, Park & Newacheck, 2009). In a survey of high school students, Schuster, Bell, Petersen & Kanouse (1996) found that only 65% of participants trusted HCPs to keep their sexually active status confidential. Importantly, an increase in the number of visits is found among AYA who receive assurances of confidentiality (Ford, Millstein, Halpern-Felsher & Irwin, 1997).

Role of Provider Training

Few providers are specifically trained in meeting the SRH needs of males (Rice et al., 2014). Brindis (2010) notes that there is a "lack of efficacy and comfort" in caring for sexually active AYA males among pediatric HCPs. Training and guidance can improve HCP's perceived self-efficacy and enhance their ability to provide evidence-based SRH care to AYA males (Ozer et al., 2001; Ozer et al., 2005). In their literature review, O'Connor et al. (2014) note that two trials comparing different intensity behavioral counseling interventions suggest that HCPs with higher training and skill levels may be capable of providing effective counseling that is less intensive, thereby saving valuable time and money (Kamb et al., 1998; Jemmott, Jemmott & O'Leary, 2007). Importantly, the lack of comprehensive SRH services, including behavioral counseling, available through HCPs for AYA contributes to the high-risk behaviors and their consequences, including unintended pregnancy and STI contraction (Brindis, 2010).

CHAPTER 3: THEORETICAL FRAMEWORK

Theoretical Foundation

Recommendations to improve SRH services provided to this population should be grounded in theoretical frameworks (O'Connor et al., 2014). This behavioral counseling training was designed using the frameworks of the Health Belief Model (HBM), AIDS Risk Reduction Model (ARRM) and the educational Adult Learning Theory (ALT) framework.

Health Belief Model

This model was one of the first theories of health behavior and is one of the most widely used health behavior frameworks. The HBM is used as a framework to motivate behavior change and has been utilized in sexual education to motivate actions such as condom use (Eisen & Zellman, 1986).

The HBM was developed in the early 1950s by Hochbaum, Rosenstock and Kegels, who were psychologists working for the US Public Health Service, in response to a failed screening program for tuberculosis (Butts & Rich, 2015; Rosenstock, 1974). This model has been used in nursing for over 50 years. Within this framework, health behaviors are determined by: perceived vulnerability to a negative outcome and its severity, expectation that a person can take action to successfully avoid that outcome, and self-efficacy in the ability to perform that action (Brown, DiClemente, & Reynolds, 1991).

Application of the Health Belief Model

The HBM model is made up of six concepts to mediate health behavior decision-making: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy (US Department of Health and Human Services, 2014). These six concepts form a framework to develop health education and behavior change strategies to address the SRH needs of AYA males.

The perceived susceptibility to and severity of disease affects the individual perception of AYA males (Maiman & Beker, 1974). Although the susceptibility of AYA males has been clearly demonstrated through high rates of STIs, HIV and pregnancy, AYA males underestimate their susceptibility (Weinstock et al., 2000; Hamilton, Martin & Ventura, 2009). Downing-Matibag & Geisinger (2009) explored sexual risk-taking behaviors within the college hook-up culture and developed HBM-based risk reduction strategies. They identified three common reasons participants underestimated personal STI risk; subjects: placed too much trust in their sexual partners, placed too much trust in their community, including underestimating the community prevalence of HIV and were misinformed about risks associated with oral sex.

A successful behavioral counseling curriculum should inform AYA males of the susceptibility and severity associated with high-risk sexual behaviors, including the high incidence of STIs and HIV, of the high-risk status of their sexual partner pool and of the high rates of unplanned pregnancy. Additionally, the curriculum should seek to alter AYA males' perceived severity of STIs, HIV, and unplanned pregnancy.

There are several modifying factors that should be addressed in an HBM-based curriculum, including cues to action and self-efficacy (Brown et al., 1991). Education is a key cue to action within the HBM. Marcell and the Male Training Center for Family Planning and

Reproductive Health (2014) provide a helpful checklist of services the Center recommends be provided to AYA males, including guidance on behavioral counseling and risk reduction topics.

HBM-based curricula have proven to be successful. Ma, Fisher & Kuller (2014) found that HBM-based HIV-preventive education is associated with several self-protective behaviors for AYA males, including delayed age of first sexual intercourse, decreased use of drugs or alcohol before intercourse, and fewer sexual partners for male high-school students. Another HBM-based HIV-, STI-, and pregnancy-prevention program was particularly effective with AYA males, who increased condom use at a higher rate than AYA females (Kirby et al., 2004).

Including HBM-based behavioral counseling in clinical encounters can also positively impact self-efficacy. Brindis (2010) notes that behavioral counseling and anticipatory guidance that anticipates sexual debut can improve SRH care for AYA males. He writes that HCPs "can prompt adolescents to increase their own self-efficacy" by providing counseling on health choices, by providing care navigation and by encouraging adolescents to take responsibility for their health, health care, and health choices (Brindis, 2010, p. 306).

The final component of the HBM is the perceived benefits and perceived barriers to behavior change, which ultimately determine the likelihood of specific behaviors (Brown et al., 1991). In an exploration of behaviors and motivations, Laraque, McLean, Brown-Peterside, Ashton & Diamond (1997) found that perceived benefit of condom use was a strong predictor of actual condom use. While partner preference for safe sex practices can positively influence self-protective behaviors, Laraque et al. (1997) found that partner preferences that favor the use of contraceptives is underestimated by AYA males. Similarly, college students at a large, public Northeastern university overestimated alcohol use, drug use and sexual behavior among their peers and this overestimation was positively correlated with actual risk-taking behaviors

(Martens et al., 2006). These are important misconceptions as they may contribute to AYAs underestimating the actual acceptability of risk-reducing and protective sexual behaviors.

Confidentiality concerns represent a final perceived barrier to AYA males seeking out SRH care that is worth exploring. Research has shown that AYA are less likely to seek SRH services due to a lack of confidentiality and privacy. Only 40% of patients aged 12-17 years old have time alone with the provider during primary care visits (Irwin et al., 2009). In a survey of high school students, Schuster et al. (1996) found that only 65% of participants trusted HCPs to keep their sexually active status confidential. Importantly, an increase in the number of visits was found among AYA who receive assurances of confidentiality (Ford et al., 1997).

Justification of the Health Belief Model

Consideration of each component of the HBM model can significantly improve the delivery of behavioral counseling to AYA males and can positively impact their SRH. Within this model, the low rates of discussion of sexual health and risk status between AYA males and HCPs diminishes the perceived susceptibility, perceived severity, and cues to action and self-efficacy, thereby decreasing the likelihood that self-protective action will be taken. Development of a curriculum can improve HCP's perceived self-efficacy in providing SRH care and enhance their ability to provide evidence-based SRH care to AYA males (Ozer et al., 2001; Ozer et al., 2005).

Importantly, HBM-based SRH programs have been shown to contribute to healthier sexual behavior choices. Such programs are associated with: delayed age of first sexual intercourse, increased condom use, decreased use of drugs and alcohol before intercourse, fewer sexual partners, increased communication about partner contraceptive preferences and practices, and lower incidence rates of STIs (Ma et al., 2014; Raj, Decker, Murray & Silverman, 2007;

Eisen & Zellman, 1986; Downing-Matibag & Geisinger, 2009; Laraque et al., 1997; Slater, 2016). These programs may be especially effective with AYA males (Kirby et al., 2004).

AIDS Risk Reduction Model

The AIDS Risk Reduction Model (ARRM) was introduced in 1990 as a framework for understanding and predicting individuals' behavior change efforts related to sexual transmission of HIV/AIDS (Catania, Kegeles & Coates, 1990). This behavior change model incorporates several aspects of the HBM, including the role of self-efficacy and intra- and interpersonal influences. The ARRM has been used to examine and identify predictors of risk behaviors and "leverage" points for behaviors that are amenable to intervention for risk reduction (Brecht, Stein, Evans, Murphy & Longshore, 2009). The model lays out three stages that individuals move through before gaining the ability to maintain complex health behaviors: recognition of one's behavior as high risk; committing to reducing high-risk sexual behaviors and increasing protective behaviors; and seeking and enacting risk reducing solutions (Lopez, Tolley, Grimes & Chen-Mok, 2009; Catania et al., 1990).

Application of the AIDS Risk Reduction Model

The ARRM was used to guide curriculum development to promote the movement of individual patients through the three stages of this model. The labeling of one's high-risk status (stage one in the ARRM) is similar to the concepts of perceived susceptibility to and severity of disease in the HBM. In order to avoid sexual risk-taking, adolescents need to believe they are susceptible to severe but avoidable consequences (Brown et al., 1991). Downing et al. (2009) demonstrated that subjects, who were college students, underestimated personal STI risk. Successful behavioral counseling curricula inform AYA males of not only the susceptibility and severity associated with high-risk sexual behaviors, but should also assist AYA males in

identifying when their SRH choices place them at high risk for STI contraction and unplanned pregnancy.

Catania et al. (1990) identified several influencers within stage one of the ARRM: knowledge of the relative risk of various sexual activities, perceived susceptibility to HIV contraction and other consequences, belief that such consequences are undesirable, and the influence of social norms and social networks. Many of these hypothesized influences overlap with the HBM and are amenable to change with behavioral counseling.

Individuals who label their sexual behaviors as high-risk progress into the second stage of the ARRM: commitment to reducing high-risk sexual behaviors and increasing protective behaviors (Catania et al., 1990). The authors identify several hypothesized influences during this stage, including: anticipated impact of behavior changes on enjoyment of sex, perceived efficacy of risk reduction strategies, self-efficacy, and social factors such as group norms and social support. HCPs have an important opportunity to assist patients in navigating these influencers and exploring barriers to behavior change, including considering how to accomplish behavior change across a variety of contexts, such as non-monogamous sexual relationships, one-time sexual relationships, or sex under the influence of drugs and alcohol (Catania et al., 1990). These contexts are particularly important to explore during the late adolescence developmental stage as this stage is marked by increasing independence, separation from parents and caregivers, sexual exploration, and redefining of boundaries (Erikson, 1959; Erikson, 1968).

Once an individual commits to reducing high-risk behaviors, AARM posits that that person will move into stage three: taking action. This stage consists of three phases, which may be moved through concurrently or even skipped: “information seeking, obtaining remedies, and enacting solutions” (Catania et al., 1990). HCPs have an important opportunity during this stage

to provide education on the best types of risk reduction and how they might be achieved. Additionally, HCPs can help individuals with the third phase (behavior change) by tailoring interventions to anticipate challenges and promote skill development (Catania et al., 1990; Lopez et al., 2009; O'Connor et al., 2014).

Justification of the AIDS Risk Reduction Model

The ARRM has demonstrated success as a basis for HIV sexual risk reduction and has also been used to reduce STI risk and HIV risk among drug users. In a sample of unmarried heterosexual adults with a risk factor for HIV contraction, increased commitment to condom use was related to: increased labeling of behaviors as high risk, supportive norms around condom use, and greater enjoyment. Additionally, increased commitment to condom use was predictive of increased actual use of condoms (Catania, Coates & Kegeles, 1994). ARRM-based counseling has been found to be more effective than standard counseling at reducing the number of self-reported unprotected vaginal or anal sex acts and at increasing first-time female condom use (Shain et al., 1999; Hoffman, Exneer, Leu, Ehrhardt & Stein, 2003).

ARRM-based counseling interventions have also been demonstrated to move beyond reducing high-risk behaviors to also reducing their consequences. In a study of minority adolescent females with a history of abuse and a current STI, Champion & Collins (2012) found that participants who received AARM-based intervention experienced significantly fewer STIs at 6- and 12- month follow-ups than controls who received standard counseling. HCPs should be provided with ARRM-based training so that effective and appropriate behavioral counseling based on this model is provided to AYA males.

The HBM and ARRM are vital to this DNP project because these models provide a framework for behavioral counseling, which is a key component of SRH care and consistent with

guideline- and evidence-driven care. Through the improved delivery of sexual healthcare to adolescent males, HCPs have the opportunity to decrease STI transmission, prevent unplanned pregnancies and promote responsible, fulfilling and healthy sexual relationships (Marcell et al., 2011).

Adult Learning Theory

The Adult Learning Theory (Andragogy) was developed by Malcolm Knowles, an American educator, to describe the art and science of adult learning. Knowles's concept of andragogy was originally introduced as a theory of adult learning in 1980 (Knowles, 1980). The theory recognizes that adult learners have different needs compared to child learners. Andragogy presents a set of assumed characteristics of adult learners to guide adult learning practice (Merriam, Caffarella & Baumgartner, 2012).

Application of Adult Learning Theory

Knowles originally presented four assumptions about adult learners: they are increasingly self-directed learners, offer rich experiences as a learning resource, offer readiness to learn based on their social role, and are motivated by learning that is problem-centered rather than subject-centered (Knowles, 1980). Knowles later added two additional assumptions about adult learners: their most powerful motivations are intrinsic rather than extrinsic and they need an explanation of the relevance of the learning (Knowles, 1984).

These assumptions were used to guide the development of the behavioral counseling curriculum. In an effort to promote self-directed learning, Knowles suggests that the learning climate should make adult learners feel "accepted, respected, and supported" (1980, p. 47). The experiences of OCHD staff were viewed as a valuable resource and, as such, the author sought feedback from multiple staff members regarding identified knowledge gaps and desired content.

Following a brief PowerPoint lecture to review the tenets of behavioral counseling, learners were invited to participate in case studies in an effort to promote the problem-centered learning consistent with Knowles's fourth assumption.

Knowles later added an additional assumption, which noted the benefit of intrinsic motivation in adult learners. OCHD's 2016 annual report notes that 80% of employees report that the OCHD mission "makes them feel their job is important" (OCHD, 2016, p. 1). Learners are, therefore, likely to be intrinsically motivated to better promote the health of Orange County residents (OCHD, 2016). In an effort to promote learners' perceived relevance of the training, attendees were provided with a handout (Appendix D) summarizing findings of an initial chart review and highlighting client needs and areas for improvement.

Justification of Adult Learning Theory

Knowles believed that these assumptions are foundational to successful program design for adult learners (Merriam et al., 2012). Since staff participation in this curriculum was voluntary, an understanding of the reasons that adult learners attend and engage in voluntary learning activities and under what conditions is likely to promote greater success with implementation of this project. Therefore, the principles of adult learning theory were incorporated into the presentation planning in an effort to best facilitate learning among OCHD staff.

CHAPTER 4: METHODOLOGY

Project Design

This project was developed using quality improvement methodology to improve the delivery of SRH care to AYA males. The U.S. Department of Health and Human Services (2011) defines quality improvement as "systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups" (p. 3). Successful quality improvement programs should focus on the following key principles: systems and processes; focus on patients; teamwork; and the use of data (Massoud, n.d.).

This project focused on those key areas in the following ways:

- Systems and Processes: OCHD's STI questionnaires and documentation materials, in both paper and electronic form, were reviewed to assess the current practices of the OCHD. Staff training included recommended behavioral counseling statements and techniques for risk behaviors that, based on this review, are routinely assessed during the patient encounter. The training session aimed to better address the behavioral counseling topics relevant to OCHD's patient population without significantly increasing staff time or resource utilization. Additionally, prior to implementation of this project, the author had the opportunity to complete over 120 sexual and reproductive health clinical hours at the Chapel Hill OCHD location.
- Focus on Patients: The behavioral counseling needs of AYA males at the implementation site were assessed using a chart audit to identify the rates of

individual high-risk behaviors. Additionally, staff input was elicited to identify knowledge and skills that staff would most like addressed by this DNP Project.

- Teamwork: The entire Health Department team (both clinical and non-clinical staff) was included in the educational workshop. The Quality Assurance Project recognizes that feedback from and involvement of the full team is essential to develop ownership and buy-in and for effective implementation (Massoud, n.d.). This training, therefore, focused on how all staff can contribute to the Health Department's goal of improving access to and quality of SRH care for AYA males.
- Use of Data: Given that the Health Department serves multiple vulnerable populations, including significant patient volumes from the immigrant and LGBT communities, collecting data directly with patients was viewed as undesirable by this site (R. Gasparini, personal communication, February 21, 2017). Therefore, data collected included:
    - Pre-implementation chart review: A chart review was conducted of all male patients less than 25 years old who presented for STI screening at either OCHD clinic between July 1, 2017 and October 1, 2017. The charts were reviewed to identify the most frequently documented high-risk behaviors and the rates at which OCHD staff documented risk reduction interventions for identified high-risk behaviors. These data were used in the design of the behavioral counseling curriculum.
    - Post-implementation chart review: A chart review was conducted of all male patients less than 25 years old who presented for STI screening at either OCHD clinic between December 1, 2017 and February 16, 2018. These data were used to

assess for documented changes in OCHD staff's documentation of the assessment of high-risk behaviors or of interventions to reduce these behaviors.

- Staff survey: All OCHD staff who attended the behavioral counseling training workshop were asked to complete three surveys designed to assess their perceived attributes of this curriculum (Appendix B). This survey was dispensed immediately before the workshop, one day after the workshop and six weeks after the workshop.

Participants

Participants in the training session and associated surveys included both clinical and non-clinical staff at the OCHD Chapel Hill and Hillsborough clinical campuses. Two sessions were scheduled, one at each of the OCHD locations, over the lunch hour. Lunch was provided in an effort to promote participation.

Setting

Orange County Health Department

Implementation of this DNP Project, including chart audits, conducting a training workshop and staff surveys, occurred at the Chapel Hill and Hillsborough campuses of the OCHD. The OCHD's mission is "to enhance the quality of life, promote the health, and preserve the environment for all people in the Orange County community" (Orange County Health Department, 2013).The OCHD is an accredited health department that provides sexual and reproductive health, family planning, dental and primary care services to the Orange County community. As an accredited health department, OCHD must satisfy all of the accreditation standards, which include 41 benchmarks laid out in the North Carolina Administrative Code (NC

Health and Human Services, n.d.). This project directly addresses several of these benchmarks, which are laid out below:

> Benchmark 4: The local health department shall engage in surveillance activities and assess, investigate, and analyze health problems, threats and hazards, maintaining and using epidemiological expertise.
>
> Benchmark 10: The local health department shall provide, support, and evaluate health promotion activities designed to influence the behavior of individuals and groups.
>
> Benchmark 12: The local health department shall develop strategies in collaboration with community partners to solve existing community health problems.
>
> Benchmark 19: The local health department shall identify populations that are not receiving preventive services or are otherwise underserved with respect to health care.
>
> Benchmark 24: The local health department shall regularly evaluate staff training and development needs and provide opportunities for continuing education, training and leadership development.
>
> Benchmark 25: The local health department shall build relationships with entities that conduct education or research to enrich public health practice (NC Health and Human Services, n.d.).

Orange County

According to 2010 Census data, the racial composition of Orange County, North Carolina is: 74.4% White, 11.9% Black or African American, 8.2% Hispanic or Latino, and 6.7% Asian. Of the total population, 35.3% are between the ages of 10 and 29 years while 34.8% of the total male population is between the ages of 10 and 29 years (U.S. Census Bureau, 2015).

Data Collection

An adapted attitudes and belief measure based on a valid and reliable tool developed by Pankratz, Hallfors & Cho (2002) was used to assess staff perceptions of attributes of the Project's behavioral counseling workshop. The original instrument was developed to assess the perceived attributes of innovation adoption and is intended to help close the gap between what is

known through research and what actually occurs in clinical practice. The authors note that this scale can be adapted to understand and assess the adoption of a variety of health education interventions (Pankratz et al., 2002). The pre-test and post-tests each used a five-point Likert scale in which participating staff selected the number corresponding to their level of agreement or disagreement with 22 statements. Factor analysis of Pankratz et al.'s (2002) original scale revealed three underlying constructs: relative advantage/compatibility, complexity, and observability. Internal consistency of the items on the original survey was satisfactory with Cronbach's α ranging from 0.71 to 0.89 for these constructs. The adapted survey, Perceived Attributes of the Behavioral Counseling Curriculum (Appendix B) measured staff attitudes and beliefs using a five-point Likert scale, with possible responses ranging from strongly disagree to strongly agree for all 22 questions of the survey. Surveys were completed during a pre-test immediately prior to the workshop, the following day, and again six weeks after the workshop.

Data was also collected through chart audits of AYA males less than 25 years old who presented to the OCHD for STI screening. Data was collected over three months prior to the training and again for eleven weeks after the training. The data was analyzed to identify the most common high-risk behaviors that the training could help to address and to identify changes pre- and post-training.

Ethical Considerations and Confidentiality

In order to protect the anonymity of staff participants who completed the workshop and associated pre-test and post-test, no names were put on any instrument. Survey data was collected using Qualtrics®, an online survey software program. In order to protect the anonymity of the patients of OCHD, no identifying data was recorded during the chart audits. Demographic data recorded during this chart audit included only age in years and sex. None of the medical

records audited were for patients over age 89 and, therefore, according to the US Department of Health and Human Services, there was not significant risk for patient identification (UNC Office of Human Research Ethics, 2011).

Additionally, the author completed the online training entitled *Protecting Human Research Participants* developed by the National Institute of Health to ensure appropriate understanding and assurance of the rights of human subjects. This Project design was reviewed by School of Nursing faculty and by staff at the OCHD, including the DNP Project Chair and Committee members. Finally, the Project was approved by the UNC Office of Human Research Ethics Institutional Review Board.

Analysis Plan

Pre-test and post-test scores from the educational workshop were collected and compared to objectively assess for change in staff perceptions of attributes of the behavioral counseling training. A Chi-square was conducted using the Statistical Package for the Social Sciences (SPSS) version 24 ® to assess for differences in staff responses across the pre-survey and post-surveys. Additionally, chart audits conducted pre- and post-training were analyzed by running a Chi-square using SPSS version 24 ®. The investigator also calculated a two-sample z-test for the difference between proportions. Both tests were used to assess for changes in documented risk assessments and counseling interventions in pre- and post- chart audit data.

CHAPTER 5: RESULTS

Initial Chart Audit

A chart audit was conducted of all medical records of AYA males aged 15-25 who presented to OCHD's clinic locations for STI screening between July 1 and October 1, 2017. During this timeframe, there were 33 of these patient encounters. Five of these encounters were repeat visits for treatment following a positive STI lab result at the initial visit. Data from these repeat visits were included as part of the initial visit, resulting in a total of 28 initial visits included in this analysis.

Demographic Information

Patients included in the initial chart audit had an age range of 18 to 24 years with a mean age of 21.9 years and median age of 22 years. The racial and ethnic makeup of this sample was largely representative of the general population of Orange County, North Carolina based on the 2010 Census.

Table 2
Demographic Information of Initial Chart Audit

Age		Years	
	Mean	21.9	
Race		*N*	*%*
	Black or African American	7	25.0
	Caucasian or White	18	64.3
	Asian	1	3.6
	Declined to Identify	0	0.0
	Total	26	100.0

Ethnicity	*N*	*%*
Hispanic	2	7.1
Non-Hispanic	24	85.7
Declined to Identify	0	0.0
Total	26	100.0

Reasons for Visit

Of the 28 patient visits included in the initial chart audit, 42.9% were symptomatic for an STI at their initial visit. Only 39.3% of patients responded affirmatively to having one of the following symptoms: itch, irritation, pain, rash, discharge, dysuria, ulcer, or lesion. This difference is due to one patient being identified as symptomatic for genital warts, which had been previously diagnosed, but who described his symptom as a "bump on the penis" rather than one of the specific terms used during patient intake.

Table 3
Reasons for Visit of Initial Chart Audit

Reasons	*N*	*%*
Symptomatic	12	42.9
Referred by Emergency Department or HCP	2	7.1
Exposed to Partner with Symptoms	3	10.7
Positive STI Test	2	7.1
Contact to Partner Treated for STI	1	3.6
Responded "Yes" to One of the Following:	***N***	***%***
Itch, Irritation, Pain, Rash, Discharge, Dysuria, Ulcer, Lesion	11	39.3

STI Risk Assessment

OCHD staff complete a standardized risk assessment with all patients who present for STI screening. A summary of the documented assessments of the charts audited is provided in Table 4. Of the 28 patients included in this chart audit, 21 have documentation on the

number of sexual partners in the past 60 days. The mean number of sexual partners over the past 60 days was 2.1 partners while the median was 1 partner. Of the 22 patients with their partners' sex documented, 10 (45.5%) reported a male sexual partner within the last 60 days while 12 (54.5%) reported a female partner in the last 60 days. None had documentation of both male and female partners in the past 60 days. Among the 28 patients included in the initial chart audit, 13 did not have documentation on their use of condoms during their last sexual encounter. Among the 15 with this documentation, 8 (53.3%) reported condom use during their last sex and seven (46.7%) reported no condom use. The CDC's (2010) STI Treatment Guidelines recommend that risk assessments include identification of exposure sites and completion of corresponding laboratory tests. This chart audit found that the most common exposure in the 60 days preceding the patient visit site was the penis, with 90.9% (20 patients) reporting exposure, followed by the mouth at 72.7% (16 patients) and anus at 36.4% (8 patients).

OCHD routinely assesses alcohol and drug use during STI visits. The Substance Abuse and Mental Health Services Administration (SAMHSA) (2015) defines different levels of alcohol consumption. For males, moderate or low-risk drinking is defined as up to two drinks per day; 30.0% of the 20 patients with documentation of their alcohol consumption were documented as moderate drinkers. Binge drinking for males is defined as one or more occasions of drinking 5 or more drinks in the past 30 days, and it was documented for 10.0% of patients. Heavy drinking, which is five or more episodes of binge drinking in the past 30 days, was documented for an additional 10.0% of patients. An additional 45.0% had documented alcohol use, but with no specified category, while 5.0% reported no alcohol use.

Table 4
STI Risk Assessment of Initial Chart Audit

Number of Partners, Past 60 Days, N=21	*N*	*%*
0	3	14.3
1	9	42.9
2	6	28.6
3	1	4.8
4	0	0.0
5-10	1	4.8
Greater Than 10	1	4.8

Date of Last Sexual Encounter, N=22	*N*	*%*
0-7 Days	6	27.3
7-14 Days	6	27.3
Greater Than 14 Days	10	45.5

Barrier Protection Use During Last Sexual Encounter, N=15	*N*	*%*
Condom Used	8	53.3
No Condom Used	7	46.7

Sex of Partners, Last 60 Days, N=22	*N*	*%*
Female Partners	12	54.5
Male Partners	10	45.5

Exposure Sites, Last 60 Days, N=22	*N*	*%*
Mouth Only	0	0.0
Anus Only	0	0.0
Penis Only	3	13.6
Mouth and Penis	9	40.9
Mouth and Anus	0	0.0
Anus and Penis	1	4.5
Mouth, Anus and Penis	7	31.8
None	2	9.1

Current Alcohol Use, N=20	*N*	*%*
No Alcohol Use	1	5.0
Low Risk Alcohol Use	6	30.0
Binge Drinking	2	10.0
Heavy Use	2	10.0
Alcohol Use of Unspecified Category	9	45.0

Current Drug Use, N=28	*N*	*%*
Injectable Drug Use	1	3.6
Non-Injectable Drug Use	7	25.0

Prior STI Treatment, N=23	*N*	*%*
Less Than 6 Months Ago	6	26.1
6 to 12 Months Ago	0	0.0
Greater than 12 Months Ago	1	4.3
No Prior STI Treatment	13	56.5
Prior STI Treatment at Unknown Date	3	13.0

Lifetime Occurrence of High Risk Behaviors, N=28	*N*	*%*
Same Sex Partner	9	32.1
Exchanged Sex for Drugs or Money	0	0.0
Sex with HIV+ Partner	0	0.0
Shared Needles	0	0.0
Sex with Bisexual Male	2	7.1
Sex with Intravenous Drug User	0	0.0
Paid for Sex	0	0.0

Clinical Impressions, Diagnoses and Interventions

Given that STI lab screening can take several days to get results, providers often rely on their clinical judgment for whether a patient's in-person STI screening is normal or abnormal and whether treatment, including presumptive treatment, is warranted (CDC, 2010). In the initial chart audit, the clinical impression was documented for 26 patients. The clinical impression was abnormal for 12 (46.2%) of these patients. One of these 12 patients declined treatment for genital warts. In total, 39.3% (11) patients received STI treatment. Five patients had a positive STI blood test that resulted after the initial visit. Some STIs, however, are not detected through blood test, but are instead diagnosed through clinical impression or other laboratory tests. Risk reduction interventions, such as education and partner notification, are also a routine part of STI visits. The most frequently documented intervention was advising condoms (89.3%, 25). However, only ten patients (35.7%) had documentation of being offered free condoms by OCHD staff.

Table 5
STI Diagnoses and Interventions of Initial Chart Audit

Clinical Impression at Initial Visit, N=26	*N*	*%*
Normal STI Screening	14	53.8
Abnormal STI Screening	12	46.2
	N	*%*
STI Treatment Provided, N=28	11	39.3
Interventions at Initial Visit, N=28	*N*	*%*
Instructed to Abstain for 7 Days	10	35.7
Instructed to Abstain Until Partner Treated	9	32.1
Condoms Advised	25	89.3
Condoms Offered or Provided	10	35.7
Offered and Accepted	9	32.1
Offered and Declined	1	2.6
Treatment Handouts Provided	3	10.7
STI Handouts Provided	6	21.4
Instructed to Notify Partner	4	14.3
EPT Cards Given	3	10.7
	N	*%*
Positive STI Blood Test Result, N=28	5	17.9

Staff Response

Response Rates

A total of 42 staff members were invited to the two training sessions. Lunch was provided in an effort to increase attendance and staff were encouraged to attend via an email from a supervisor at the OCHD. In total, 13 staff attended over the two sessions for an attendance rate of 31.0%. Attendees included three social workers, three providers, two nurses, one lab personnel, two public health personnel and two administrative staff. Staff who attended were asked to complete three surveys – one pre-survey immediately before the training session, one-post survey one day after the training sessions and an additional post-survey six weeks after the training sessions. Eight staff completed the pre-survey and immediate post-survey for a

response rate of 61.5%. Nine staff completed the six weeks post-survey for a response rate of 69.2%.

Staff Survey Analysis

Table 6 provides a summary of tabulated staff responses on each of the three distributions of the Perceived Attributes of the Behavioral Counseling Curriculum survey.

Table 6
Staff Survey Responses

1. Using the Behavioral Counseling Curriculum is compatible with the STI activities in my clinic [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	5	3	0
Post-Survey	0	0	0	5	3
Six Weeks Post-Survey	0	0	0	5	4
Total	0	0	5	13	7

2. I think that using the Behavioral Counseling Curriculum fits well with the way I like to work [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	5	3	0
Post-Survey	0	0	1	4	3
Six Weeks Post-Survey	0	0	0	6	3
Total	0	0	6	13	6

3. I believe that using the Behavioral Counseling Curriculum would require my clinic to make substantial changes to our STI programs [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	1	3	2	1
Post-Survey	1	4	3	0	0
Six Weeks Post-Survey	1	5	3	0	0
Total	3	10	9	2	1

4. It will be difficult to train staff to implement the Behavioral Counseling Curriculum [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	2	4	1	0	1
Post-Survey	2	5	1	0	0
Six Weeks Post-Survey	1	8	0	0	0
Total	5	17	2	0	1

5. Overall, I believe that it will be complicated to implement the Behavioral Counseling Curriculum [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	3	3	1	1	0
Post-Survey	1	6	1	0	0
Six Weeks Post-Survey	1	7	1	0	0
Total	5	16	3	1	0

6. I believe that each of the components described in the Behavioral Counseling Curriculum needs to be implemented within one year [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	4	3	1
Post-Survey	0	0	1	5	1
Six Weeks Post-Survey	0	0	4	3	2
Total	0	0	9	11	4

7. I believe that it is okay for me to try out a new STI behavioral counseling program on a limited basis before fully implementing [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	2	6	0
Post-Survey	0	0	1	7	0
Six Weeks Post-Survey	0	1	3	3	2
Total	0	1	6	16	2

8. Staff will **not** be able to see any changes in patient behavior if the Behavioral Counseling Curriculum is implemented [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	2	4	2	0	0
Post-Survey	2	3	3	0	0
Six Weeks Post-Survey	1	5	3	0	0
Total	5	12	8	0	0

9. Patients will like the changes if the Behavioral Counseling Curriculum is implemented [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	4	3	1
Post-Survey	0	0	2	2	4
Six Weeks Post-Survey	0	0	1	6	2
Total	0	0	7	11	7

10. Using the Behavioral Counseling Curriculum will enhance my effectiveness on the job [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	3	5	0
Post-Survey	0	0	2	6	0
Six Weeks Post-Survey	0	0	0	7	2
Total	0	0	5	18	2

11. Using the Behavioral Counseling Curriculum will increase the quality of STI prevention programs in my clinic [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	1	4	3
Post-Survey	0	0	1	3	4
Six Weeks Post-Survey	0	0	0	5	4
Total	0	0	2	12	11

12. Using the Behavioral Counseling Curriculum will have **no** effect on STI rates [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	2	4	2	0	0
Post-Survey	3	1	4	0	0
Six Weeks Post-Survey	1	5	3	0	0
Total	6	10	9	0	0

13. The Behavioral Counseling Curriculum requires more work than can be done with the current funding at my clinic [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	3	3	1	0
Post-Survey	1	4	2	1	0
Six Weeks Post-Survey	1	4	3	1	0
Total	3	11	8	3	0

14. Even if the Department of Health did not encourage the use of this Curriculum, I would like to implement them in my practice [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	4	4	0
Post-Survey	0	0	2	5	1
Six Weeks Post-Survey	0	0	5	3	1
Total	0	0	11	12	2

15. Overall, I find using Behavioral Counseling Curriculum fits well with the way I like to work [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	6	2	0
Post-Survey	0	0	1	4	3
Six Weeks Post-Survey	0	0	1	4	3
Total	0	0	8	11	6

16. Enacting the new Behavioral Counseling Curriculum will have **no effect** on my community's STI rates [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	5	2	0	0
Post-Survey	3	1	4	0	0
Six Weeks Post-Survey	2	4	2	1	0
Total	6	10	8	1	0

17. Promoting new Behavioral Counseling Curriculum will enhance my effectiveness on the job [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	4	4	0
Post-Survey	0	0	2	6	0
Six Weeks Post-Survey	0	0	1	7	1
Total	0	0	7	17	1

18. Overall, I find the enactment of new Behavioral Counseling Curriculum advantageous for my community [a]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	0	0	2	4	1
Post-Survey	0	0	2	3	3
Six Weeks Post-Survey	0	0	1	6	2
Total	0	0	5	13	6

19. I believe that promoting new Behavioral Counseling Curriculum would require my clinic to make substantial changes to our present STI prevention efforts [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	1	4	1	0
Post-Survey	0	4	1	2	1
Six Weeks Post-Survey	1	5	3	0	0
Total	2	10	8	3	1

20. It will be difficult to train clinic staff to promote the new Behavioral Counseling Curriculum [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	4	1	1	0
Post-Survey	1	7	0	0	0
Six Weeks Post-Survey	2	5	2	0	0
Total	4	16	3	1	0

21. Overall, I believe that it will be complicated to promote the new Behavioral Counseling Curriculum [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	2	3	1	0
Post-Survey	1	6	1	0	0
Six Weeks Post-Survey	2	5	2	0	0
Total	4	13	6	1	0

22. Changing Behavioral Counseling policies requires more work than can be done with my clinic's current funding [b]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre-Survey	1	2	3	1	0
Post-Survey	1	4	1	1	0
Six Weeks Post-Survey	2	5	1	1	0
Total	4	11	5	3	0

[a] Range: 1-5 (5 is most favorable for adoption)
[b] Item was reverse coded for analysis

Table 7 presents the mean and standard deviation of staff survey responses on each of the three surveys and across all three surveys. For this analysis, the Likert scale was treated as a continuous variable. Several questions stood out as having highly favorable responses from staff.

Questions 1, 2, 9, 11 and 18 are all structured so that a response of 5 (strongly agree) is the most favorable choice for adoption. These questions had mean staff response of at least 4.0. Questions 4 and 5 were reverse coded for analysis so that a response of 1 (strongly disagree) is the most favorable for adoption. Both of these questions had a mean of 2.0 across the three surveys.

Question 3 in the pre-survey was the only question with an unfavorable mean response. Question 3 is structured so that a response of 1 (strongly disagree) is the most favorable response. The mean response on the pre-survey was 3.50. In the post- and six weeks post-surveys, mean staff responses were increasingly favorable with means of 2.25 and 2.22 respectively. All other mean responses, across each of the three surveys or the combined mean across the three surveys, were neutral or favorable.

Table 7
Mean Staff Survey Responses

1. Using the Behavioral Counseling Curriculum is compatible with the STI activities in my clinic [a]	*Mean*	*SD*
Pre-Survey	3.38	0.52
Post-Survey	4.38	0.52
Six Weeks Post-Survey	4.44	0.53
Total	4.08	0.70

2. I think that the Behavioral Counseling Curriculum fits well with the way I like to work [a]	*Mean*	*SD*
Pre-Survey	3.50	0.53
Post-Survey	4.25	0.71
Six Weeks Post-Survey	4.33	0.50
Total	4.04	0.68

3. I believe that using the Behavioral Counseling Curriculum would require my clinic to make substantial changes to our STI programs [b]	*Mean*	*SD*
Pre-Survey	3.13	1.25
Post-Survey	2.25	0.71
Six Weeks Post-Survey	2.22	0.67
Total	2.52	0.96

4. It will be difficult to train staff to implement the Behavioral Counseling Curriculum [b]	*Mean*	*SD*
Pre-Survey	2.25	1.28
Post-Survey	1.88	0.64
Six Weeks Post-Survey	1.89	0.33
Total	2.00	0.82

5. Overall, I believe that it will be complicated to implement the Behavioral Counseling Curriculum [b]	*Mean*	*SD*
Pre-Survey	2.00	1.07
Post-Survey	2.00	0.53
Six Weeks Post-Survey	2.00	0.50
Total	2.00	0.71

6. I believe that each of the components described in the Behavioral Counseling Curriculum needs to be implemented within one year [a]	*Mean*	*SD*
Pre-Survey	3.63	0.74
Post-Survey	4.00	0.58
Six Weeks Post-Survey	3.78	0.83
Total	3.79	0.72

7. I believe that it is okay for me to try out a new STI behavioral counseling program on a limited basis before fully implementing [a]	*Mean*	*SD*
Pre-Survey	3.75	0.46
Post-Survey	3.88	0.35
Six Weeks Post-Survey	3.67	1.00
Total	3.76	0.66

8. Staff will **not** be able to see any changes in patient behavior if the Behavioral Counseling Curriculum is implemented [b]	*Mean*	*SD*
Pre-Survey	2.00	0.76
Post-Survey	2.13	0.83
Six Weeks Post-Survey	2.22	0.67
Total	2.12	0.73

9. Patients will like the changes if the Behavioral Counseling Curriculum is implemented [a]	*Mean*	*SD*
Pre-Survey	3.63	0.74
Post-Survey	4.25	0.89
Six Weeks Post-Survey	4.11	0.60
Total	4.00	0.76

10. Using the Behavioral Counseling Curriculum will	*Mean*	*SD*

enhance my effectiveness on the job [a]		
Pre-Survey	3.63	0.52
Post-Survey	3.75	0.46
Six Weeks Post-Survey	4.22	0.44
Total	3.88	0.53

11. Using the Behavioral Counseling Curriculum will increase the quality of STI prevention programs in my clinic [a]	*Mean*	*SD*
Pre-Survey	4.25	0.71
Post-Survey	4.38	0.74
Six Weeks Post-Survey	4.44	0.53
Total	4.36	0.64

12. Using the Behavioral Counseling Curriculum will have **no** effect on STI rates [b]	*Mean*	*SD*
Pre-Survey	2.00	0.76
Post-Survey	2.13	0.99
Six Weeks Post-Survey	2.22	0.67
Total	2.12	0.78

13. The Behavioral Counseling Curriculum requires more work than can be done with the current funding at my clinic [b]	*Mean*	*SD*
Pre-Survey	2.50	0.93
Post-Survey	2.38	0.92
Six Weeks Post-Survey	2.44	0.88
Total	2.44	0.87

14. Even if the Department of Health did not encourage the use of this Curriculum, I would like to implement them in my practice [a]	*Mean*	*SD*
Pre-Survey	3.50	0.53
Post-Survey	3.88	0.64
Six Weeks Post-Survey	3.56	0.73
Total	3.64	0.64

15. Overall, I find using Behavioral Counseling Curriculum fits well with the way I like to work [a]	*Mean*	*SD*
Pre-Survey	3.25	0.46
Post-Survey	4.25	0.71
Six Weeks Post-Survey	4.22	0.67
Total	3.92	0.76

16. Enacting the new Behavioral Counseling Curriculum will have **no effect** on my community's	*Mean*	*SD*

STI rates [b]		
Pre-Survey	2.13	0.64
Post-Survey	2.13	0.99
Six Weeks Post-Survey	2.22	0.97
Total	2.16	0.85

17. Promoting new Behavioral Counseling Curriculum will enhance my effectiveness on the job [a]	*Mean*	*SD*
Pre-Survey	3.50	0.53
Post-Survey	3.75	0.46
Six Weeks Post-Survey	4.00	0.50
Total	3.76	0.52

18. Overall, I find the enactment of new Behavioral Counseling Curriculum advantageous for my community [a]	*Mean*	*SD*
Pre-Survey	3.86	0.69
Post-Survey	4.13	0.83
Six Weeks Post-Survey	4.11	0.60
Total	4.04	0.69

19. I believe that promoting new Behavioral Counseling Curriculum would require my clinic to make substantial changes to our present STI prevention efforts [b]	*Mean*	*SD*
Pre-Survey	2.71	0.95
Post-Survey	3.00	1.20
Six Weeks Post-Survey	2.22	0.67
Total	2.63	0.97

20. It will be difficult to train clinic staff to promote the new Behavioral Counseling Curriculum [b]	*Mean*	*SD*
Pre-Survey	2.29	0.95
Post-Survey	1.88	0.35
Six Weeks Post-Survey	2.00	0.71
Total	2.04	0.69

21. Overall, I believe that it will be complicated to promote the new Behavioral Counseling Curriculum [b]	*Mean*	*SD*
Pre-Survey	2.57	0.98
Post-Survey	2.00	0.53
Six Weeks Post-Survey	2.00	0.71
Total	2.17	0.76

22. Changing Behavioral Counseling policies requires more work than can be done with my clinic's current funding [b]	*Mean*	*SD*
Pre-Survey	2.57	0.98
Post-Survey	2.29	0.95
Six Weeks Post-Survey	2.11	0.93
Total	2.30	0.93

[a] Range: 1-5 (5 is most favorable for adoption)
[b] Item was reverse coded for analysis

Given the small sample size for these surveys, a Chi-Square test was used to test for statistically significant differences in responses on the pre-, post-, and six weeks post-surveys. Two questions (numbers 1 and 15) had statistically significant differences across these surveys. These results are presented in Table 8.

Table 8
Staff Survey Chi-Square Results

Question	Value	df	*p*-value
1. Using the Behavioral Counseling Curriculum is compatible with the STI activities in my clinic	14.507	4	.006
15. Overall, I find using Behavioral Counseling Curriculum fits well with the way I like to work.	10.649	4	.031

Post-Training Chart Audit

A post-training chart audit was conducted of all medical records of AYA males aged 15-25 who presented to OCHD's clinic locations for STI screening between December 1, 2017 and February 16, 2018. During this timeframe, there were 27 of these patient encounters. Three of these encounters were repeat visits for the same presenting complaint. Data from these repeat visits were included as part of the initial visit, resulting in a total of 24 initial visits included in this analysis.

Demographic Information

Patients included in the post-training chart audit had an age range of 19 to 24 years with a mean age of 21.6 years and median age of 21.5 years. The racial and ethnic makeup of this sample is summarized in Table 9. Overall, the demographic makeup of this sample was similar to that of the initial chart audit.

Table 9
Demographic Information of Post-Training Chart Audit

Age		Years	
	Mean	21.6	
Race		*N*	*%*
	Black or African American	7	29.2
	Caucasian or White	13	54.2
	Asian	2	8.3
	Declined to Identify	2	8.3
	Total	24	100.0
Ethnicity		*N*	*%*
	Hispanic	2	8.3
	Non-Hispanic	21	87.5
	Declined to Identify	1	4.2
	Total	24	100.0

Reasons for Visit

Of the 24 patients included in the post-workshop chart audit, six (25.0%) were symptomatic for an STI. The same six patients (25.0%) all responded affirmatively to one or more of the symptoms (itch, irritation, pain, rash, discharge, dysuria, ulcer, or lesion) assessed for during the intake process.

Table 10
Reasons for Visit of Post-Training Chart Audit

Reasons	*N*	*%*
Symptomatic	6	25.0
Referred by Emergency Department or HCP	1	4.2
Exposed to Partner with Symptoms	0	0.0
Positive STI Test	0	0.0
Contact to Partner Treated for STI	5	20.8

Responded "Yes" to One of the Following:	*N*	*%*
Itch, Irritation, Pain, Rash, Discharge, Dysuria, Ulcer, Lesion	6	25.0

STI Risk Assessment

A summary of the documented risk assessments of patients included in the post-workshop chart audit is included in Table 11. Of the 24 patients included in this audit, 18 have documentation on their number of sexual partners in the past 60 days. The mean number of partners was 1.5, which is lower than the mean of 2.1 partners in the pre-workshop audit, and the median of 1 partner was the same as the initial audit. Of the 19 patients with the sex of their partner(s) documented, 36.8% reported a male sexual partner in the last 60 days while 63.2% reported a female partner in the last 60 days. Both of these numbers are lower than in the initial chart audit's 45.5% and 54.5%, respectively. None had documentation of both male and female partners in the last 60 days.

OCHD staff routinely assesses the use of barrier protection during the STI risk assessment section of STI visit intake. Among the 21 patients with documentation on their use of condoms during their last sexual encounter, 38.1% reported condom use while 61.9% reported no condom use. The proportion of patients with this documentation was higher in the post-training chart audit (87.5%) than in the pre-training chart audit (53.6%). A two-proportion z-test was conducted and the result was statistically significant ($z = -2.64$, $p = 0.0042$, one-tailed).

Staff also routinely identify exposure sites so that appropriate STI screening tests can be recommended. This chart audit found that the most common exposure sites in the 60 days preceding the patient's visit was the penis, with all 19 patients (100%) who had this documentation affirming this exposure site, followed by the mouth (57.9%) and anus (36.8%).

Alcohol and drug use is screened for during all STI visits at the OCHD as their use can contribute to STI risk (O'Connor et al., 2014). In the post-training chart audit, 19 patients had documentation on their current alcohol use. Among these patients, 36.8% reported no alcohol use, 57.9% reported low risk alcohol use, and 5.2% reported binge drinking. No patients had documentation of heavy alcohol use and no patients had documentation of alcohol use but without sufficient information to classify their consumption into one of the levels defined by SAMHSA (2015). There was a significant change in the documentation of alcohol use classification in the pre- and post-training chart audits χ^2 (4, N = 39) = 17.29, p = .002; (z = 3.33, p = 0.0009). This difference is summarized in Table 12. A two-proportion z-test was calculated to compare the proportion of patients with unclassifiable alcohol use in the pre- and post-workshop chart audits and the result was statistically significant (z = 3.33, p = 0.00043, one-tailed).

Table 11
STI Risk Assessment of Post-Training Chart Audit

Number of Partners, Past 60 Days, N=18	*N*	*%*
0	1	5.6
1	10	55.6
2	5	27.8
3	1	5.6
4	1	5.6
5-10	0	0.0
Greater Than 10	0	0.0

Date of Last Sexual Encounter, N=20	*N*	*%*
0-7 Days	7	35.0
7-14 Days	5	25.0
Greater Than 14 Days	8	40.0

Barrier Protection Use During Last Sexual Encounter, N=21	*N*	*%*
Condom Used	8	38.1
No Condom Used	13	61.9

Sex of Partners, Last 60 Days, N=19	*N*	*%*
Female Partners	12	63.2
Male Partners	7	36.8

Exposure Sites, Last 60 Days, N=19	*N*	*%*
Mouth Only	0	0.0
Anus Only	0	0.0
Penis Only	8	42.1
Mouth and Penis	4	21.1
Mouth and Anus	0	0.0
Anus and Penis	0	0.0
Mouth, Anus and Penis	7	36.8
None	0	0.0

Current Alcohol Use, N=19	*N*	*%*
No Alcohol Use	7	36.8
Low Risk Alcohol Use	11	57.9
Binge Drinking	1	5.2
Heavy Use	0	0.0
Alcohol Use of Unspecified Category	0	0.0

Current Drug Use, N=18	*N*	*%*
Injectable Drug Use	1	5.6
Non-Injectable Drug Use	4	22.2

Prior STI Treatment, N=19	*N*	*%*
Less Than 6 Months Ago	3	15.8
6 to 12 Months Ago	0	0.0
Greater than 12 Months Ago	3	15.8
No Prior STI Treatment	11	57.9
Prior STI Treatment at Unknown Date	2	10.5

	N	*%*

Lifetime Occurrence of High Risk Behaviors, N=24		
Same Sex Partner	7	29.2
Exchanged Sex for Drugs or Money	0	0.0
Sex with HIV+ Partner	1	4.2
Shared Needles	1	4.2
Sex with Bisexual Male	1	4.2
Sex with Intravenous Drug User	1	4.2
Paid for Sex	0	0.0

Table 12
Alcohol Consumption Classification Chi-Square Results

	Value	df	*p*-value
Alcohol Consumption Classification in the pre- and post-training chart audits	17.29	4	0.002

Clinical Impressions, Diagnoses and Interventions

In the post-training chart audit, the most commonly documented intervention was advising patients to use condoms, which was documented for 91.7% of patients. Free condoms, which are available at OCHD, were offered or provided to 62.5% of patients. The post-workshop chart audit showed a statistically significant difference in the documentation of offering or providing patients with free condoms χ^2 (2, N = 52) = 11.27, p = 0.004. A two-proportion z-test was conducted comparing the proportion of patients who had documentation of being offered and/or provided free condoms in the pre- and post-workshop chart audits. The result was statistically significant (z = -1.93, p = 0.027, one-tailed), with more patients having documentation of being offered condoms in the post-workshop chart audit.

Table 13
STI Diagnoses and Interventions of Post-Training Chart Audit

Clinical Impression at Initial Visit, N=23	*N*	*%*
Normal STI Screening	19	82.6
Abnormal STI Screening	4	17.4

	N	*%*
STI Treatment Provided, N=24	6	25.0

Interventions at Initial Visit, N=24	*N*	*%*
Instructed to Abstain for 7 Days	14	58.3
Instructed to Abstain Until Partner Treated	12	50.0
Condoms Advised	22	91.7
Condoms Offered or Provided	15	62.5
Offered and Accepted	5	20.8
Offered and Declined	10	41.7
Treatment Handouts Provided	1	4.2
STI Handouts Provided	2	8.3
Instructed to Notify Partner	4	16.7
EPT Cards Given	2	8.3

	N	*%*
Positive STI Test , N=28	5	17.9

Table 14
Condom Provision Chi-Square Results

	Value	df	*p*-value
Documentation of offering or providing free condoms in the pre- and post- training chart audits	11.27	2	0.004

CHAPTER 6: DISCUSSION

Several organizations recommend covering sexual health, including STI screening and behavioral counseling, in every AYA health appointment (O'Connor et al., 2014; AAP, 2013; ACOG, 2009; ACOG, 2014; SAHM, 2014; USPSTF, 2008). Despite these recommendations, many sexually active AYA, and particularly AYA males, report not receiving sexual health education, behavioral counseling, or STI screening at health appointments (Cuffe et al., 2016; O'Conor et al., 2014; CDC, 2013). AYA males do not have sufficient access to risk assessments and behavioral counseling that can positively impact sexual health across the lifespan (Marcell et al., 2011).

The purpose of this project was to improve the frequency and quality of SRH behavioral counseling delivered to AYA males through creation of an evidence-based workshop for staff at the Orange County Health Department (OCHD). This Project assessed staff perceptions of the advantages and feasibility of delivering SRH behavioral counseling to AYA males who present for STI screening at OCHD. Additionally, documentation rates of behavioral counseling interventions were assessed before and after the training. The project's aim was to provide behavioral counseling training so that OCHD staff are better able to meet the specific SRH care needs of AYA males.

Key Findings

The key findings of this project are that staff were receptive to incorporating behavioral counseling best practices into their current practices at the OCHD clinics. Across all surveys,

only one question had an unfavorable survey response from staff. Question 3, which assesses the complexity of practice change, had an unfavorable response on the pre-survey. Responses to this question on the post- and six weeks post-survey were increasingly favorable. Additionally, question 19, which also assesses the underlying construct of complexity, had a neutral response on the post-survey. The post-survey mean response for this question was 3.00 with a response of 3 equaling "neither agree nor disagree." Overall, the positive responses of staff on these surveys suggest that continuing work to incorporate behavioral counseling best practices into OCHD STI visits would be accepted by staff.

Importantly, the chart audits demonstrated significant SRH needs among OCHD's AYA male patient population. In the pre-training chart audit, 23 patients (82.1%) patients had at least one of the following risks documented: prior STI diagnosis, male sexual partners in the last 60 days, exposure to a partner with symptoms of an STI or with a diagnosed STI, multiple sexual partners in the last 60 days, inconsistent barrier method use, current binge or heavy alcohol use, current or previous intravenous drug use. In the post-training chart audit 19 (79.2%) patients had at least one of those risks documented. This suggests that AYA males who present to OCHD for STI screening are at high risk for having or contracting an STI.

Additionally, the chart audit highlighted potential areas for future staff training. For example, 53.6% of visits included in the initial chart audit had no documentation of condoms being offered. Among the 11 patients who received STI treatment in the initial chart audit, just 27.3% (3) had documentation that they received treatment handouts while just 36.4% (4) had documentation that they were instructed to notify their sexual partners. These data are beneficial for OCHD because it brings to attention key areas for improvement in the delivery and documentation of behavioral counseling interventions delivered during STI appointments.

Comparisons of the pre- and post-training workshop chart audits revealed several other key findings. Two statistically significant changes were found in the documentation of STI risk assessments. First, significantly more patients had documentation on their current use of barrier protection. Condom use is a common behavioral counseling topic and baseline information on condom use is essential for OCHD to use evidence-based counseling practices to promote behavior change (National Network of STD/HIV Prevention Training Centers, 2011). An additional change found in risk assessment documentation was a significant reduction in the number of patients who had incomplete documentation on their SAMHSA alcohol use classification. Alcohol use before and during sex is another high-risk behavior that is an important focus of behavioral counseling efforts in AYA males. Alcohol use is associated with increased engagement in high-risk sexual behavior, increased STI risk and sexual dis-inhibition in AYA males (Eaton et al., 2010; Marcell and the Male Training Center for Family Planning and Reproductive Health, 2014; U.S. Department of Health and Human Services, 2014; Hesse & Tutenges, 2008). Social work and nursing staff identified alcohol misuse as a behavior that OCHD is focused on better assessing and reducing (R. Gasparini & K. Kyes, personal communication, November 29, 2017). A third statistically significant change identified in comparisons of the pre- and post-workshop chart audits is a significant increase in the proportion of patients with documentation of being offered free condoms in the chart audit conducted after the behavioral counseling training workshop. This is important because condoms are known to be highly effective in reducing the risk of HIV and STI transmission and distribution of free condoms may eliminate barriers to their use (CDC, 2013a; National Network of STD/HIV Prevention Training Centers, 2011).

Implications for Future Practice

It is important to understand that quality improvement is a continuous process. In this setting, next steps should include efforts to provide behavioral counseling training to additional staff. In particular, future training should focus on reaching more nurses and providers as these are the staff that provide patient care to all AYA males presenting for STI screening. The training sessions had a lower turnout than originally anticipated by the investigator. This work suggests that further incentives are needed to promote staff participation in this type of training activity. The need for incentivizing training does not take away from the receptiveness of staff to adaptation of the behavioral counseling curriculum into their practice.

Following completion of the training sessions, the investigator was approached by the OCHD Public Health Nursing Supervisor about including components of the training in future orientation for new nurse hires (R. Gasparini, personal communication, November 30, 2017). As the backbone of public health, nurses are a key target audience of this training. At OCHD, nurses are responsible for a significant proportion of the risk assessment and education provided in STI appointments and frequently engage patients in conversations about risk reduction strategies. Orientation training sessions are required for all new nurse hires and is an ideal strategy to increase the audience who receives this training. Additionally, the inclusion of these materials in orientation will promote the sustainability of this project. OCHD is currently facing high staff turnover (R. Gasparini, personal communication, February 21, 2017; A. Mulholland, personal communication, March 20, 2018). At health departments, employee turnover can limit the ability to respond to the community's public health needs (Newman, Ye & Leep, 2014). High staff turnover increases the need for ongoing training to promote staff competency and to

improve the quality and safety of patient care and the responsiveness of OCHD to local public health needs (Newman, Ye & Leep, 2014).

Future trainings should include a review of documentation expectations and best practices. Several staff members who attended the training expressed to the investigator that they believed aspects of the chart audit may represent low rates in documentation, rather than low rates in delivery of an intervention. In particular, staff spoke with the investigator about their belief that condoms were being offered to more than the 53.6% of patients reflected in the documentation. Improving documentation practices is an important goal for OCHD as this will increase the accuracy of data collected from medical records and provide better guidance on how to better meet the needs of OCHD patients.

Limitations

Among the most significant limitations of this work is risk of bias. The staff surveys were distributed to a convenience sample of OCHD employees who voluntarily attended the training session. Only 31.0% of staff that were invited to attend the session actually attended, despite repeated invitations, encouragement from a supervisor, and an offer of free lunch. Among attendees who received the surveys, response rates ranged from 61.5% to 69.2%. As a result, there is significant risk for selection bias. The survey sample may not be representative of the full OCHD staff, which further limits generalizability of the findings. External generalizability of this project is further limited to health departments that serve populations similar to the OCHD. Both Chapel Hill and Hillsborough, the two locations of the OCHD included in this project, are classified as urban clusters in the Southeastern US according to 2010 Census data, meaning that each of these areas contain between 2,500 and 50,000 people. Orange County is classified as a

mostly urban county, with less than 50% of its population living in rural areas (U.S. Census Bureau, 2011). This project's findings, therefore, should be generalized with caution.

Among staff that did complete the surveys, there is also significant risk for response bias. In particular, social desirability bias may have influence staff to present themselves in a more favorable light to the investigator by selecting more positive survey responses. One method to reduce social desirability bias is to provide anonymity to respondents. Before completing the survey, all respondents were informed that survey responses were anonymous (both verbally at the training sessions and in written form at the start of the survey). Participants were also informed that their answers would have no impact on their employment status at OCHD (Appendix B). Given the small sample size, however, participants may still have felt that their anonymity was limited as the investigator may be able to deduce individuals' responses.

Additional limitations may have impacted the validity of findings of the chart audits. In particular, since the audits were conducted by one author, there was a lack of inter-rater reliability in interpretation of these data. Since staff that attended the behavioral counseling training session were aware that a post-training chart audit was being conducted, the Hawthorne effect may have impacted these data. Changes in staff behavior and documentation may have been attributable to their awareness of being observed rather than resulting from the training itself.

While the investigator was fortunate to complete a clinical rotation at the OCHD, another significant limitation of this study was that the investigator was working as a guest at the project implementation site. As a result, the investigator had limited knowledge of the culture, practices and patient population of the OCHD. In an effort to lesson this limitation, the investigator worked to establish rapport with the staff, and to encourage staff to share their opinions,

questions, concerns, and recommendations about this project. Additional insight was gained through auditing of medical records and reviewing STI appointment practices and resources. Still, the investigator had limited time and exposure at the OCHD and was a guest at the two OCHD clinics.

Conclusion

HCPs must address the failures of reproductive healthcare for AYA in America. With nearly 20 million new STIs each year, significant efforts must be made to combat this epidemic (Satterwhite et al., 2013; CDC, 2016). HCPs must recognize the professional obligation and moral imperative of improving reproductive healthcare for AYA, particularly males. One component of this work is consistent delivery of the recommended behavioral counseling that is proven to have a net benefit on STI incidence rates (USPSTF, 2008).

HCPs should receive training and guidance as this has been demonstrated to improve the effectiveness of behavioral counseling. Importantly, this project suggests that HCPs are receptive to receiving this training and believe it is beneficial to their work and their patients. HCPs should be trained to improve delivery of the personalized behavioral counseling that our AYA patients deserve and that will positively impact our nation's public health.

APPENDIX A: ITEMS FOR THE PERCEIVED ATTRIBUTES OF THE PRINCIPLES OF EFFECTIVENESS

Pankratz et al., 2002

	Strongly Disagree 1	**Disagree 2**	**Neither Agree nor Disagree 3**	**Agree 4**	**Strongly Agree 5**
Using the Principles of Effectiveness is compatible with the substance use coordination activities in my school district	☐	☐	☐	☐	☐
I think that using the Principles of Effectiveness fits well with the way I like to work	☐	☐	☐	☐	☐
I believe that using the Principles of Effectiveness would require my school district to make substantial changes to our present substance use prevention program	☐	☐	☐	☐	☐
It will be difficult to train teachers and staff to implement the Principles of Effectiveness	☐	☐	☐	☐	☐
Overall, I believe that it will be complicated to implement the Principles of Effectiveness	☐	☐	☐	☐	☐
I believe that each of the activities described in the Principles of Effectiveness needs to be implemented this school year	☐	☐	☐	☐	☐
I believe that it is okay for me to try out a new substance use prevention program on a limited basis before fully implementing	☐	☐	☐	☐	☐
Parents will not be able to see any changes in student behavior if the	☐	☐	☐	☐	☐

Principles of Effectiveness are implemented					
Teachers will like the changes if the Principles of Effectiveness are implemented	☐	☐	☐	☐	☐
Using the Principles of Effectiveness will enhance my effectiveness on the job	☐	☐	☐	☐	☐
My school district will lose SDFS funding if we do not use the Principles of Effectiveness	☐	☐	☐	☐	☐
Using the Principles of Effectiveness will increase my ability to get non-SDFS substance use prevention funds for my school district	☐	☐	☐	☐	☐
Using the Principles of Effectiveness will increase the quality of substance use prevention programs in my district	☐	☐	☐	☐	☐
Using the Principles of Effectiveness will have no effect on student substance use rates	☐	☐	☐	☐	☐
The Principles of Effectiveness require more work than can be done with the current SDFS funding	☐	☐	☐	☐	☐
Even if SDFS did not encourage the use of these Principles, I would like to implement them in my school district	☐	☐	☐	☐	☐
Overall, I find using the Principles of Effectiveness to be advantageous for my school district	☐	☐	☐	☐	☐
Promoting new POS tobacco policy fits well with the way I like to work.	☐	☐	☐	☐	☐
Promoting new POS tobacco policy will increase our ability to get prevention funds for my partnership's	☐	☐	☐	☐	☐

work.					
Enacting new POS tobacco policy will have **no effect** on my community's tobacco use rates	☐	☐	☐	☐	☐
Promoting new POS tobacco policy will increase the quality of tobacco control efforts in my community	☐	☐	☐	☐	☐
Promoting new POS tobacco policy will enhance my effectiveness on the job	☐	☐	☐	☐	☐
Overall, I find the enactment of new POS tobacco policy advantageous for my community	☐	☐	☐	☐	☐
I believe that promoting new POS marketing policy would require my partnership/agency to make substantial changes to our present tobacco control efforts	☐	☐	☐	☐	☐
It will be difficult to train members of my partnership/agency to promote new POS marketing policy	☐	☐	☐	☐	☐
Overall, I believe that it will be complicated to promote new POS marketing policy	☐	☐	☐	☐	☐
Changing POS marketing policies requires more work than can be done with my partnership's/agency's current tobacco control funding	☐	☐	☐	☐	☐

APPENDIX B: PERCEIVED ATTRIBUTES OF THE BEHAVIORAL COUNSELING CURRICULUM

Adapted from: Pankratz et al., 2002

Thank you for attending the Lunch and Learn!

The purpose of this survey is to assess staff perceptions of the advantages and feasibility of using the Behavioral Counseling Curriculum to deliver sexual risk reduction counseling to adolescent and young adult males at the Health Department.
Participation is anonymous and voluntary. You may stop at any time. Attendees of this educational session may choose not to participate in this survey. This decision will not affect your employment and will not be shared with any Health Department staff.

We anticipate that it may take you **less than 5 minutes** to complete the survey.

If you have any questions regarding this survey, you may contact Kelly Bates at kbates5@email.unc.edu.

Would you like to participate in the following survey?

☐ Yes ☐ No

	Strongly Disagree 1	**Disagree 2**	**Neither Agree nor Disagree 3**	**Agree 4**	**Strongly Agree 5**
Using the Behavioral Counseling Curriculum is compatible with the STI activities in my clinic	☐	☐	☐	☐	☐
I think that using the Behavioral Counseling Curriculum fits well with the way I like to work	☐	☐	☐	☐	☐
I believe that using the Behavioral Counseling Curriculum would require my clinic to make substantial changes to our STI programs	☐	☐	☐	☐	☐

It will be difficult to train staff to implement the Behavioral Counseling Curriculum	☐	☐	☐	☐	☐
Overall, I believe that it will be complicated to implement the Behavioral Counseling Curriculum	☐	☐	☐	☐	☐
I believe that each of the components described in the Behavioral Counseling Curriculum needs to be implemented within one year	☐	☐	☐	☐	☐
I believe that it is okay for me to try out a new STI behavioral counseling program on a limited basis before fully implementing	☐	☐	☐	☐	☐
Staff will not be able to see any changes in patient behavior if the Behavioral Counseling Curriculum is implemented	☐	☐	☐	☐	☐
Patients will like the changes if the Behavioral Counseling Curriculum is implemented	☐	☐	☐	☐	☐
Using the Behavioral Counseling Curriculum will enhance my effectiveness on the job	☐	☐	☐	☐	☐
Using the Behavioral Counseling Curriculum will increase the quality of STI prevention programs in my clinic	☐	☐	☐	☐	☐
Using the Behavioral Counseling Curriculum will have no effect on STI rates	☐	☐	☐	☐	☐
The Behavioral Counseling Curriculum requires more work than can be done with the current funding at my clinic	☐	☐	☐	☐	☐

Even if the Department of Health did not encourage the use of this Curriculum, I would like to implement them in my practice	☐	☐	☐	☐	☐
Overall, I find using Behavioral Counseling Curriculum fits well with the way I like to work.	☐	☐	☐	☐	☐
Enacting the new Behavioral Counseling Curriculum will have **no effect** on my community's STI rates	☐	☐	☐	☐	☐
Promoting new Behavioral Counseling Curriculum will enhance my effectiveness on the job	☐	☐	☐	☐	☐
Overall, I find the enactment of new Behavioral Counseling Curriculum advantageous for my community	☐	☐	☐	☐	☐
I believe that promoting new Behavioral Counseling Curriculum would require my clinic to make substantial changes to our present STI prevention efforts	☐	☐	☐	☐	☐
It will be difficult to train clinic staff to promote the new Behavioral Counseling Curriculum	☐	☐	☐	☐	☐
Overall, I believe that it will be complicated to promote the new Behavioral Counseling Curriculum	☐	☐	☐	☐	☐
Changing Behavioral Counseling policies requires more work than can be done with my clinic's current funding	☐	☐	☐	☐	☐

APPENDIX C: BEHAVIORAL COUNSELING TRAINING POWERPOINT HANDOUT

Behavioral Counseling for STI Risk Reduction

Kelly Bates, RN, BSN

STI Facts

- 19.7 million new STIs each year
- Two-thirds of new STIs among Americans <25 YO
- Each year 1 in 4 teens contracts an STI
- By age 25, 1 in 2 sexually active people contract an STI
- All 3 nationally reported STIs are on the rise (chlamydia, gonorrhea, syphilis)
- STI rates in NC are higher than national average and increasing, especially among young males

High Risk Behaviors

- High risk sexual behaviors increase the risk for contracting an STI
  - Inconsistent condom use
  - Improper condom use
  - Multiple partners
  - Sex under the influence
  - Previous STI diagnosis
  - High risk partner pool

OCHD High Risk Behaviors

- Chart review of 3 months/28 encounters of males < 25 years old presenting for STI screening
  - 21.4% (6) had been treated for an STI within the last six months
  - 25.0% (7) report consistent condom use and/or condom use during their most recent sexual encounter
  - 35.7% report having male partners
  - 7.1% (2) report binge drinking behaviors and 7.1% (2) report heavy alcohol use
  - 39.3% (11) received treatment

ORANGE COUNTY
NORTH CAROLINA

Recommended care

- Organizations recommend STI screening and behavioral counseling to American adolescents and young adults:

American Academy of Family Physicians (AAFP)	Institute for Clinical Systems Improvement (ICSI)
American Academy of Pediatrics (AAP)	National Institute for Health and Care Excellence (NICE)
American Congress of Obstetricians and Gynecologists (ACOG)	The Society for Adolescent Health and Medicine
Centers for Disease Control and Prevention (CDC)	United States Preventative Services Task Force (USPSTF)

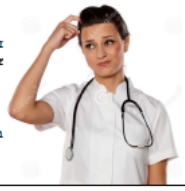
- Behavioral counseling for sexually active adolescent and at risk adults:
  - has net benefit on STI incidence
  - decreases odds of reacquiring an STI
  - decreases rates of high risk behaviors and increases rates of protective behaviors

Actual Care

- Adolescents and young adults are not receiving recommended behavioral counseling and screening
- Nearly 1 in 2 adolescents reported not receiving guidance on age-appropriate topics such as sexual activity, contraception and STIs during their most recent health care visit

Bridging the Gap

- **Training is effective, but few providers receive it.**
  - Training in behavioral counseling and education to effectively mitigate STI risk is recommended
    - by WHO & Nat'l Network of STD/HIV Prevention Training Centers
  - Providers with more training, higher skill levels deliver effective counselir more efficiently
  - But few providers are specifically trained in meeting the sexual health needs of males



Behavioral Counseling is:

- CDC's recommendation for a client-centered approach for HIV pre- and post-test counseling:
  - "Client centered counseling refers to counseling conducted in an **interactive manner responsive to individual client needs**" which requires an "understanding of the unique circumstances of the client" through "the use of **open-ended questions and active listening**"

Behavioral Counseling is NOT:

EDUCATION

- While important, education alone does not produce sustained behavior change

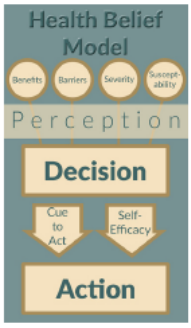
Education vs. Counseling

- Education
  - Addresses knowledge
  - Helps people understand a subject
  - One-directional transfer of information
  - Standardized
- Counseling
  - Addresses feelings, attitudes, beliefs, values
  - Helps people understand themselves
  - Dialog and partnership between patient and provider
  - Individualized

What does influence behavior change?

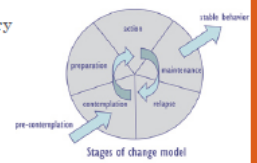
- perceived seriousness
- perceived susceptibility
- knowledge/attitudes/beliefs
- social norms
- self-efficacy
- skills required
- barriers/facilitators
- cost
- access to services
- power dynamics

***per the National Network of STD and HIV Prevention Training Centers*



How does behavior change occur?

- Stages of Change Theory (along a continuum):
  1. Pre-contemplation
  2. Contemplation
  3. Preparation
  4. Action
  5. Maintenance
- Motivational Interviewing
  - Counseling style that elicits behavior change by exploring and resolving ambivalence



Stages of change model

Principles and Tips

- Neutral, non-judgmental attitude
- Inclusive, open-ended questions
- Talk with, not to, the client
- Individualize the counseling

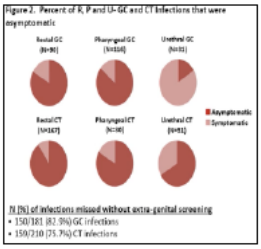
National Network of STD Clinical Prevention Training Centers

Steps of Risk Reduction Counseling

1. Risk Assessment
2. Identify a behavioral change goal
   - Patient role
   - Assess readiness to change
3. Develop an action plan
   - Make the goal actionable (SMART goals)
   - Identify Barriers and Facilitators

Risk Assessment

- Risk Assessment is NOT screening for symptoms



Risk Assessment

- Number of partners (3 months)
- Gender of partners
- Sexual practices
- Condom use
- Alcohol/drug use affecting sexual activity
- IDU and needle sharing
- History of unintended pregnancy
- History of STIs
- History of STI screening

Risk Assessment: Alcohol Use

- 32.1% (9) report alcohol use, but without documentation of the quantity or category of use
- SAMHSA levels of alcohol use

Risk Assessment: Condom Use

- Review of OCHD documentation
- Importance of condom use
- Issues with improper condom use
- Ask Robin and Andrea re: handouts

Risk Assessment: Questions

- Inclusivity – Loss Frame
  - Have you ever had homosexual sex?
  - Are you transgender?
  - Have you had oral sex, anal sex or just regular sex?
  - Who do you think gave this to you?
- Gain Frame
  - Are your partners male, female or both?
  - Do you identify as male or female?
  - When you have sex, what body parts are exposed? Genitals, rectum, mouth?
  - The person who you contracted this from probably did not know they had it.

Risk Assessment: Questions

- "How at risk do you think you are?"
- "Are STIs something you worry about?"
- "What's working for your safer sex practices and what isn't?"
- "What are the times and situations when safe sex is the most challenging for you?"
- "What do you know about your partners' risk behaviors?"

Identify a Goal

- "What's the most important way you think you could reduce your risk for STIs?"
- "What's one thing you think you could start doing right now to reduce your risk?"
- "What changes would you like to make to reduce your risk?"

Goals

- "I know I should use condoms more."
- "One thing I should work on is that sometimes I have sex I wouldn't have otherwise had if I'm drunk or high."
- "Sometimes it's hard for me to be the one who brings up condom use, so I just wait to see if my partner brings it up."

Develop Action Plan

- "How will you achieve that goal?"
- "What specific actions could you take to reach that goal?"
- "What barriers do you think you might face?"
- "What could we do to make it easier to reach this goal?"
- "What's the difference between the time you use condoms and the times you don't?"
- Follow up! Follow up! Follow up!

Action Plans

- "I'll start carrying condoms with me."
- "I'll make an appointment at the drug treatment center"
- "I'll limit myself to three drinks when I go out."
- "I'll talk to my partner about STI testing – tonight."

Role of Documentation

- Follow up on goal setting
  - Accountability
- Value of data
  - How to serve patients
  - Funding

Break for Case Studies

Self Reflection

- What are your values regarding sexual health assessment and counseling? What practices are consistent with these?
- Have you ever hesitated to take a sexual history?
- What parts of the sexual history make you hesitate?
- Do you ever apologize for doing your job as it pertains to sexual history taking, STI screening and making an STI diagnosis?

THANK YOU! QUESTIONS?

APPENDIX D: HANDOUT SUMMARIZING FINDINGS OF INITIAL CHART REVIEW

Findings of Initial Chart Review of Male STI Visits at OCHD
Kelly Bates, RN, BSN

Between July 1 and October 1, 2017, there were 33 encounters of males < 25 years old presenting for STI screening at the two clinic locations of the Orange County Health Department. Five of these encounters were repeat visits for treatment following a positive STI lab result at the initial visit. Data from these repeat visits were included as part of the initial visit, resulting in a total of 28 visits included in this analysis.

Of these 28 encounters:

- 42.9% (12) were symptomatic when they initially presented for STI screening at the OCHD
- 10.7% (3) were exposed to a partner with symptoms or who had received STI treatment
- 21.4% (6) had been treated for an STI within the last six months
- 25.0% (7) report consistent condom use and/or condom use during their most recent sexual encounter
- 35.7% (10) report having male sexual partners
- Alcohol use:
    - 3.6% (1) report no alcohol use
    - 21.4% (6) report low risk alcohol use
    - 7.1% (2) report binge drinking behaviors
    - 7.1% (2) report heavy alcohol use
    - 32.1% (9) report alcohol use, but without documentation of the quantity or category of use
- 25.0% (7) report the use of non-injectable drugs
- 39.3% (11) received treatment
- 89.3% (25) were advised to use condoms
- 53.6% (15) had no documentation of condoms being offered
- 21.4% (6) had documentation that they received STI handouts

Of the 11 people who received STI treatment,

- 27.3% (3) had documentation that they received treatment handouts
- 36.4% (4) had documentation that they were instructed to notify their partner(s)

APPENDIX E: BEHAVIORAL COUNSELING TRAINING SESSION CASE STUDIES

CASE STUDY 1

You are a 22-year-old white male who presents today for a STI check. You work at a bar and are concerned because about two weeks ago, you drank a lot at work and went home with a stranger at the end of your shift. You had vaginal and oral sex and are not sure if you used a condom.

You have had three female partners in the last three months and 14 lifetime partners, all of whom are female. One of these partners is a recurrent partner who you are not monogamous with and use condoms with almost all of the time. You have oral and vaginal sex and use condoms more than 75% of the time. You have not used IV drugs or engaged in transactional sex. You have no known history of STIs or unplanned pregnancy, but you don't think you've ever been tested for STIs before.

You tend to make safe sex choices when you are sober, but if you've been drinking alcohol or using marijuana, you are more likely to have sex with partners you don't think you would have otherwise and are "not as good" about using condoms. This is especially challenging because you have access to free alcohol at work and because your social life often includes meeting friends at a bar.

A behavior change you're open to changing is limiting alcohol and drug use, especially before a potential sexual encounter.

CASE STUDY 2

You are a 24-year-old African American MSM (man who has sex with men). You identify as gay. You are presenting for routine STI screening, which you typically do once per year.

You have had 2 male partners in the last 3 months, 10 in the last year and about 75 lifetime partners, all of whom have been male. You use condoms "sometimes." You have oral sex, receptive penetrative anal sex and insertive anal sex. You recently had penetrative anal sex with an HIV+ partner without a condom, but report that this partner told you he is "undetectable." If asked, you do not use PEP or PrEP (post- or pre- exposure prophylaxis to prevent contraction of HIV). You have a history of rectal gonorrhea and syphilis, which you were treated for. You drink alcohol only rarely and never have more than four drinks per day. You do not use drugs.

You know that you are at risk for STIs and that you should be using condoms. You don't carry condoms with you and don't consistently have condoms available at home. You do not bring up condoms with your partners and assume that if they do not bring it up, they must be "clean." You are interested in talking about strategies to improve your condom use.

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