2020

# The Beliefs of Sex Education Instructors in the Classroom

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Walden University
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Abstract

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MA, Hamline University, 2013

BS, Jackson State University, 2004

Dissertation Submitted in Partial Fulfillment

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Public Administration

Walden University

February 2021

## Abstract

Data-driven research is an ethical precept for nearly every profession, and it holds a particular importance within any human-services field, including public health education. This research study used a phenomenological methodology and Brofenbrenner's theoretical framework to construct descriptive themes, investigating how public school instructors' personal beliefs impact teaching practice. Ten in-depth face-to-face interviews were conducted with public high school teachers who self-identified as being involved with sex education instruction. Participants were selected from several public Minnesota high schools responsible for providing sex education to public school students in Grades 9 to 12. The findings revealed several themes relating to how instructors experience and understand their role(s) as sex education instructors: (a) Students often receive unsubstantiated or ambiguous curricula that are ideologically or politically driven, (b) participants have complete discretion to modify the recommended curriculum, and (c) participants reported that some teachers' beliefs were incongruent with researcher recommendations to the detriment of sex education quality. Recommendations for further research include assessing the generalizability and transferability of the study's findings and replications with different populations. This study's findings have significant implications for positive social change, they suggest that unbiased sex education instruction, guided by a detailed, standardized, evidence-based curriculum, are an effective means of equipping adolescents to make healthy, informed choices about sexual behaviors.

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# Dedication

I dedicate this dissertation to those who supported me along the way. My family, specifically my parents, Paulette and David Stewart, whose words of encouragement and motivation kept me grounded. My husband, Clyde Johnson, whose steady stream of love and support helped me through the difficult days and late nights. My brother and sister, Darren Stewart and Ashley Kolman, you two are always there for me, and for that, I am genuinely grateful. I love you all.

# Acknowledgments

As I reflect on this experience, I am overwhelmed by the memories of support and encouragement. I share this achievement with all of those who invested time and energy in my journey. Together we celebrate. This study would not have been possible if not for the patience and interest of many.

I appreciate my dissertation committee, Dr. Mary Brown; I am grateful for your wisdom and sense of humor. Your constant influence and honesty helped me navigate my work from start to finish. Dr. Gary Kelsey, you helped me maintain my focus and offered endless optimism. Both of you played a significant role in my study's success.

I am grateful to those who chose to participate in this study; without you, this accomplishment is not possible

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# Chapter 1: Introduction to the Study

While sex education in public schools has been in existence for several decades, legislation in each local jurisdiction continues to differ throughout the United States. Some leaders at the federal level support the legislation of abstinence-only education and can make it difficult for educators to know what to teach in the classroom or the ability to secure the funding necessary to create and implement a comprehensive sex education program. Proponents such as political interest groups, lawmakers, and advocates of comprehensive programs frequently compete with proponents of abstinence-only education, and each side aggressively advocates the position that best represents their constituency (Arons et al., 2016). Such conflict is typically rooted in different moral perspectives on how best to develop sex education policy. This conflict can lead to educators presenting unsubstantiated or ambiguous curriculums created for the purpose of avoiding political discourse. This ambiguity translates to students failing to receive information that fully explains their choices related to healthy lifestyle options.

## Background

The competing interests and conflicting opinions of state legislators and public-school district officials is, in part, the result of the indecisiveness at the federal level (Arons et al., 2016). Because no federal law exists that mandates public schools to provide sex education or what should be taught, the ambiguity places states and individual districts to decide what programs to implement. Ultimately, the uncertainty creates confusion and dissent among community leaders, parents, and teachers. Furthermore, the lack of clarity from government officials is compounded by a fear of the

potential socioeconomic and religious implications that accompany sex education. According to Arons et al. (2016), all of these factors lead to sex education programs that are, at times, poorly designed and, at other times, incorrectly executed. Poorly designed programs force public school health education instructors to decipher how to implement the best possible sex education curriculum that meets applicable federal, state, and local funding requirements and refrains from impeding on the cultural, moral, or religious beliefs of the students (Arons et al., 2016). Educators must also consider the degree to which available data are consistent with their personal ideology, and the ways in which instructors may be reluctant to adopt sex education material written by the school district deemed contrary to the cultural, moral, or religious mores of their students.

A significant challenge to creating curriculum includes finding a way to acknowledge the beliefs and viewpoints of policy makers, parents, and teachers without eliminating instructional best practices. In addition to balancing conflicting philosophies, the lack of an accepted statewide sex education curricula or standards presents another layer of confusion. Currently, regardless of the significant progress in science, the implementation of an equitable and data driven model for broad sex education is still inhibited by political, sociocultural, and systems obstacles (Hall et al., 2016).

I begin this chapter with a presentation of the impact of introducing personal beliefs in the classroom and the lack of instructional preparedness and access to adequate training for educators. I did not intend to advocate for a particular intervention or practice. Instead, this purpose of the study was two-fold: (a) to examine and reflect on

how the personal beliefs of public school educators impact sex education practice and (b) to determine the ways these beliefs impact sex education practice.

**Personal Beliefs in Sex Education**

Because sex education is such a personal subject, subjectivity or personal beliefs may affect sex educators in their teaching of sex education. Williams and Jensen (2016) posited that there is a lack of research examining the influence or impact of sex educators' personal beliefs or experience in sex education practice. With a historical importance on disease prevention, most sexuality-based programs are developed and implemented in alternative and charter schools, substance abuse treatment programs, after-school programs, juvenile detention-deferred programs, and other settings where vulnerable adolescents are reached. Even though these programs usually have more latitude in the content of sex education curricula, they are hampered by both funding issues and the lack of qualified sexuality and health educators. Typically, community-based sex education is funded to provide educational instruction that promotes particular ideology (e.g., sexually transmitted disease [STD] prevention, abstinence, contraceptives, family planning options); rarely are dollars included in funding for comprehensive sex education (Hall et al., 2016). Additionally, the teachers working in these programs are trained in the program's primary area of focus and are not typically qualified to be sexual health educators in general or in an academic setting specifically (Hall et al., 2016). Elliott (2014) analyzed how sexual health educators use the neoliberal rhetoric of individual responsibility in their abstinence-only and comprehensive lessons by way of ethnographic observations based on two high schools.

The perspectives of teachers in sex education may influence what is taught in class and inherently the impact on the long-term sexual health outcomes of students. The literature has indicated significant challenges regarding lesbian, gay, bisexual, transgender, queer (LGBTQ) subjects (Lynch, 2017; McNeill, 2013), as well as heteronormativity, including gendered and racial norms (DePalma & Francis, 2014; Francis & DePalma, 2014). Teachers may be unaware of their negative influence when teaching students, which may be even more problematic when teaching sex education. Schutte et al. (2016) stated the need for comprehensive program implementation regarding sex and health education to be successful, but added that it was often overlooked. Teachers play a significant role in school-based sex education practice, yet teachers are often only in a supporting role during the implementation phase (Schutte et al., 2016).

**Data Driven Research and Sex Education in Public Schools**

Public school officials steadily contend with demands to use data in their decision making. These mandates create an environment by which education policy researchers and policy makers will appreciate what data-driven research requires and the conditions that may support it (Lynch, 2017). For that reason, a thorough review of the research of data driven material used in public school settings is complex. To determine what is evidence in an academic setting requires educators to better understand its implications for instructional practice. These implications contain political factors and require the participation of parents, policymakers, and educators whose opinions may not align with scientific research.

Federal policies are placing demands on public schools to use a wider range of sources to include terms like *research, evidence*, and *data* to substantiate an array of decisions related to educational practice prior to curriculum development (Lynch, 2017). This includes how educators and policymakers should work together to develop programs. Policy tends not to expound on the process by which evidence should be used but instead gives emphasis to the forms of evidence that should be used related to a particular type of educational program, such as sex education. The debate in policy literature about what counts as evidence has recently intensified, with formal federal policy calling for data-driven decision making, research-based practice, and a focus on what works in regards to decreasing the overall STD rate.

## Problem Statement

Public school and community-based sexuality education programs for adolescents in the United States are constrained by a shortage of funding, ambiguous district policies, and a lack of teacher autonomy and qualified sexual health educators. Currently, most public schools have policies that expect sex education to be abstinence-only or abstinence-based, the former of which severely limits the "topics that can be discussed, and an emphasis on heteronormative sexuality that fosters a moral rather than a health approach to the topic" (Lynch, 2017). Health education advocates have acknowledged the need to develop better guidelines to assist educators with sex education programmatic standards.

The Future of the Sex Education Initiative (FoSE, 2012), comprised of 40 health and education advocates, has collaborated to develop clear and consistent sexuality

education standards. The primary goal of the FoSE's National Sexuality Education Standards (NSES) is to provide public school educators with the "essential minimum" core content and skills for students in Grades K through 12 (FoSE, 2012). The NSES outline evidence-based benchmarks on topics such as healthy relationships, STDs and prevention, positive health-enhancing behaviors, and good decision-making. These standards promote, establish, and support a framework for administrators, policy makers, and teachers in selecting or designing curricula, disseminating instructional resources, and evaluating student progress and achievement. The high teen pregnancy rate in the United States continues in part as a result of the absence of a comprehensive program structure and an inclusive curriculum development process (FoSE, 2012). The FoSE is an example of what an evidence-based sex education curriculum is, and how these standards can serve as a starting point for local public-school institutions who are considering redesigning their respective sex education programs.

Studies have shown how the personal beliefs of an educator can impact the overall effectiveness of a sex education program. Lamb et al., (2013) illustrated the instances by which school districts intentionally design their sex education curricula to consider the personal ideologies of their instructors. The sex education curricula present facts and language that "legitimizes certain kinds of knowledge and undermines other kinds" (Lamb et al., 2013, p. 449). In other words, in the absence of evidence-based curricula or standardized sex education practices, educators have the latitude to either incorporate or dismiss their personal beliefs in the classroom. However, a significant proportion of the available research on this topic emphasizes the benefits of an unbiased

evidence-based curriculum (Lamb et al., 2013). The current sex education research fails to address how personal beliefs affect how educators approach sex education or what material they will present in the classroom. In this study, I attempted to address this gap in the research. The literature has shown that sex education programs that promote data-driven research have the potential to equip adolescents with the skills, temperament, and relevant material necessary to make informed personal health decisions as opposed to relying on the personal beliefs of high school educators (Lamb et al., 2013).

## Purpose of the Study

The purpose of this qualitative study was to identify how the personal beliefs associated with sex education, as understood by K to 12 educators, influence teaching practice. I explored and documented (a) whether educators believed their sex education instruction is affected by personal beliefs and (b) to what degree educators felt that their beliefs affect individual teaching practice.

## Research Question

Research Question: In what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice?

## Theoretical Framework

McLeroy et al.'s (1988) ecological systems theory details the factors or levels that influence health behavior, and "assumes that individuals exist within environments where other people's thoughts, advice, examples, assistance, and emotional support affect their own feelings, behavior's and health" (as cited in Rimer, Glanz, & National Cancer Institute, 2005, p. 22). Most public health problems are multilayered, and the key to

solving public health concerns requires an examination of the interaction across levels. These levels serve as competing forces that often include factors associated with the individuals' prior experiences and acuities of their environments in conjunction with personal attributes (McLeroy et al., 1988).

This approach explains the complexities surrounding public health issues. Even though evidence-based research has become standard practice to advise policy, the government may take years to acknowledge new evidence (Cairney et al., 2012). The ecological systems theory framework considers the multiple contexts in which youth interact and serves as an excellent framework for sex education programs. This theory compels sexual health educators to consciously and continually consider the wider personal and environmental factors in the lives of the participants.

The ecological systems theory explains the reluctance on behalf of educators, policymakers, or institutions to integrate and accept evidence-based sex education material into curricula (see Brofenbrenner, 1979). Furthermore, the theory describes how the divisiveness and polarization between groups with opposing views often fail to reassess a position even if emerging evidence proves necessary. Brofenbrenner's (1979) theory provides context to the somewhat static nature of sex education policy and the challenges surrounding meaningful policy change. In this research study, I applied Brofenbrenner's socioecological systems theory to demonstrate the intersection between social issues and personal ideology. The socioeconomic systems theory was applied to identify how inconsistent sex education practices arise and ways to leverage social

change in improving access to resources and thriving among marginalized and disadvantaged adolescents and communities.

## Nature of the Study

In this qualitative study, I used a phenomenological approach to investigate the reasons posed by educators surrounding their personal beliefs toward sex education. More specifically, I examined interpersonal and organizational contributing factors of curriculum plans in sex education. Additionally, I (a) examined how the personal beliefs of sexuality health education instructors influence teaching practice and (b) determined to what degree educators felt their personal beliefs impact teaching practice. My aim was to use phenomenological inquiry to understand the ways in which personal ideology impacts teaching practice.

## Definitions

*Abstinence-only education:* Teaching that focuses entirely on the notion that refraining from the act of sex is the only way to prevent pregnancy and sexually transmitted infections (Lynch, 2017).

*Belief system*: A set of principles or tenets that together form the basis of a religion, philosophy, or moral code (Oxford Dictionary, n.d.).

*Comprehensive sex education:* Teaching that focuses on abstinence as the best method for avoiding STDs and unintended pregnancy, but also includes information about condoms and contraception to reduce the risk of unintended pregnancy and infection with STDs, including HIV. It also teaches interpersonal and communication

skills and helps young people explore their own values, goals, and options (McNeill, 2013).

*Heteronormative*: Relating to or based on the attitude that heterosexuality is the only normal and natural expression of sexuality (Oxford Dictionary, n.d.).

*Sex education:* Educating about sexual reproduction, human sexuality, intimate relationships, sexual activity, human sexual anatomy, sexual orientation, sexuality transmitted infections, gender identity, contraception, abstinence, as well as reproductive rights and responsibilities (Breuner et al., 2016).

## Assumptions

This study was based on many assumptions. I assumed that each participant solicited would accept the offer to participate in the study. I also assumed that the Minneapolis School District would consent to allowing teachers to participate in the study. Furthermore, I assumed that all participants would respond to each question honestly and truthfully.

This study could bring awareness to educators, policymakers, schools, and administration officials related to the ineffectiveness and inconsistencies of the current sex education policy and may result in teachers and policymakers overhauling the district's sex education curricula in an effort to create consistency across sex education programs. Additionally, educators could have the opportunity to revisit how their personal ideologies impact teaching practice.

## Scope and Delimitations

The lack of clarity from federal, state, and local entities regarding sex education policy and programmatic best practices can leave teachers ill-equipped to provide students with a sex education curriculum that is free of bias. This ambiguity can lead to curricula designed for the purpose of appeasing to a particular group's policy position as opposed to a sex education program designed with the best interest of those directly impacted by the program. This study targeted sex education teachers in Grades 9 to 12 in the Minneapolis School District. Although the Minneapolis School District is not the largest school district in Minnesota, they lead the state with the highest number school campuses at 10. The specific focus on this district's or community's sex education program was chosen because no data were discovered on the impact of personal ideology in sex education practice in Minnesota.

The boundaries of this study included educators who are responsible for teaching sex education at the time the interview was conducted. The study did not include sex education teachers in elementary (Grades K-5) or middle school (Grades 6-8). The results of this study may be applied to metropolitan areas with similar populations where sex education programs are not mandated. Though transferability issues do not exist, external validity can be used as phenomenological studies do not rely on statistical generalizations. I demonstrated transparency by allowing each participant to confirm the interview questions prior to the interview. The research showed coherence and consistency through the use of audio recordings to support the accuracy of my notes.

## Limitations

The study was limited to the qualitative data of the beliefs of each participant. Also, this study was limited to the analysis of one district's sex education curriculum. I did not presume to investigate the knowledge, thoughts, or feelings of educators of all health education instructors in the Minneapolis School District. No generalizations were made regarding, religion, socioeconomic status, or race.

This study was self-conducted, and there were constraints related to the time spent and the financial resources dedicated to the study. Additional methodological limitations of qualitative studies included the small sample population targeted for the study, the lack of generalizations made, and the various interpretations that this research produced.

## Significance

Although the teen pregnancy rates have gradually declined over the past decade, the United States continues to have the high STD rates amongst developed nations (Centers for Disease Control and Prevention, 2013). The STD rate remains in part due to the absence of a comprehensive and consistent program configuration and development process. The lack of a consistent instructional approach driven by weak standards has the potential to leave students with an educational disadvantage over their counterparts (Williams & Jensen, 2016).

This study was designed to provide educators, parents, and students the evidence necessary to evaluate the risks and benefits of both ideology-based and research-based education (Carrion & Jensen, 2014). Also, where appropriate, I aimed to assess ways to deliberately incorporate both concepts in a manner that centered on increasing the

availability of resources and information for students as opposed to impeding them. Failing to grant access to these resources can lead to poor lifestyle decisions. For students to make informed decisions, they require all the data available.

## Summary

Evidence-based practice is an ethical precept for nearly every profession, and it holds a particular importance within any human-services field, such as public health education. The concept is simple: Constantly drawing upon an ever-expanding database of knowledge, future procedures/programs/interventions should use only the elements that have been proven to work. Such a framework sets the stage for constant revision and improvement of services, recognizing that when something is broken, it should be fixed. For any issue, using what works is the only way to garner the desired results. Other districts leave it up to the individual schools to decide what to teach. While only 13 states in the nation require sex education to be evidence-based, the majority of the curriculum is open to interpretation in teenage sexuality literacy.

Research has shown that if sex education is comprehensive, students make safer choices, feel more informed, and have healthier outcomes, resulting in more awareness related to protection against STDs and infections. Public schools are one of the best environments for teenagers to access formal sex education instruction. Due to unregulated sex education instruction, educators are left to interpret ambiguous legislative laws, meaning that curriculums might be biased or inaccurate. The legislation for sex education falls under the jurisdiction of states' rights, creating disparities in what public school students learn in classrooms across the country.

The majority of the verifiable inaccuracies reported to appear in sex education curriculums pertain to exaggerating the dangers of adolescent sexual activity and minimizing the safety and effectiveness of contraception and methods for treating and avoiding STDs. The literature has indicated that commitment to and comfort with sexuality education has an effect on teaching ability. Well-prepared teachers understand the value of sexuality education instruction, and it is imperative that adolescents to have access to the information and skills required to make healthy lifestyle decisions.

In Chapter 2, I outline the current state of sex education in the United States, the role of evidence-based research in educational settings, and the impact of personal beliefs in the development of sex education curricula. I also further explore Brofenbrenner's (1979) socioeconomic theoretical framework and how it applies to sex education practice.

# Chapter 2: Literature Review

The purpose of this qualitative study was to identify how the personal beliefs associated with sex education as understood by 9 to 12 educators influence teaching practice. Specifically, I aimed to discover the degree to which teachers feel their beliefs affect teaching practice. Even though teen pregnancy rates have gradually declined over the past decade, the United States continues to have a high STD rate amongst developed nations (Centers for Disease Control and Prevention, 2013). The lack of a consistent instructional approach driven by weak standards has the potential to leave students with an educational disadvantage over their counterparts (Williams & Jensen, 2016). Sex education programs that promote evidence-based research has the potential to equip adolescents with the skills, temperament, and relevant material necessary to make informed personal health decisions (Hills et al., 2013).

Studies have shown how the personal beliefs of an educator can impact the overall effectiveness of a sex education program. Lamb (2013) illustrated the instances by which school districts intentionally design their sex education curriculums to consider the personal ideologies of their instructors. Current policy encourages the use of research-based instructional material and reinforces a curricula design that includes clear benchmarks and detailed outcomes for respective states and communities. Furthermore, the personal beliefs of educators and access to evidence-based material impact the effectiveness of sex education programs. This study can give educators, parents, and students the information necessary to reassess the risks and benefits of both research-based and ideology-based instruction. (Carrion & Jensen, 2014). Also, I aimed to assess

ways to strategically incorporate both ideas in a manner that emphasizes expanding the availability of information and resources for students as opposed to restricting them. The rest of this chapter provides a comprehensive discussion on the available research regarding sex education.

## Literature Search Strategy

I used a number of search engines and databases to obtain the most recent and relevant literature. The databases were Google Scholar, ERIC, and DeepDyve, and the search terms included *sex education, policy, challenges, teaching, teachers, ecological systems theory, United States, U.S., experiences, personal, beliefs, evidence-based, evidence based, nonevidence, curriculum* and combinations of these terms. Of the 75 sources included in this chapter, 62 of the sources (83%) were published between 2014 and 2017, nine sources (12%) were from 2013, and four of the sources (5%) were published before 2013. Although some of the research cited here is dated, this is the most up-to-date information on this topic. The studies and research articles that were relevant to the purpose and research question of this study are included in this comprehensive literature review. The literature included in this review is from comprehensive peer-reviewed articles, published reviews, research studies, and dissertations. In the remainder of this chapter, I provide discussions on sex education policy, teaching sex education, personal beliefs in sex education, and the available sex education material, evidence-based and nonevidence based.

## Theoretical Framework

The theoretical framework for this research study was Brofenbrenner's (1979) ecological systems theory. Ecological systems theory details the interactive factors that influence health behavior and "assumes that individuals exist within environments where other people's thoughts, advice, examples, assistance, and emotional support affect their own feelings, behavior's and health" (as cited in Glanz & Rimer, 1997, p. 22). These interactive factors serve as competing forces that often include spheres associated with the individuals' prior beliefs and perceptions of their environments in conjunction with individual attributes (McLeory et al., 1988). As such, most public health problems are multilayered, and the key to solving public health concerns requires an examination of the interaction across factors. Furthermore, individuals and institutions are influenced by their environments (Bronfenbrenner, 1979), which may explain the influence of certain teacher perspectives on their students when teaching sex education.

Some researchers have provided the successful use of the ecological systems theory to predict unsafe sexual activity. Sipsma et al. (2015) posited that the rates of HIV, STIs, as well as pregnancy are still high for adolescents in the United States, while current strategies to reduce sexual risk has shown limited success. Future expectations and the extent of expectations may affect sexual risk behavior (Sipsma et al., 2015). The researchers used longitudinal data from 3,205 adolescents, of which 49.8% were female, who completed the National Longitudinal Survey of Youth in 1997 to determine the effect of future expectations on sexual risk behavior (Sipsma et al., 2015). The findings indicated that future expectations were linked with each outcome differently (Sipsma et

al., 2015). Participants who reported expectations of being arrested and drinking were consistently linked with the most significant risk of engaging in unsafe sexual behavior when compared to other participants who reported expectations of school attendance and reduced engagement in unsafe behaviors (Sipsma et al., 2015). The participants who reported expectations of school attendance and drinking were linked with increased numbers of sexual partners as well as inconsistent use of contraceptives (not at first biological child; Sipsma et al., 2015). Participants who indicated expectations of victimization were not linked to any specific outcome, except for being younger at first biological child (Sipsma et al., 2015).

Aside from the future expectations of participants, gender also moderated the sexual risk outcomes of the different participants according to their expectations (Sipsma et al., 2015). The researchers concluded that future expectations, being a multidimensional construct, could explain unsafe sexual behavior over time (Sipsma et al., 2015). This study had several strengths, including a large and diverse group of adolescents who were followed over time (Sipsma et al., 2015). Moreover, the analysis was theoretically based and made use of empirical and validated groups to determine future expectations in a multidimensional manner (Sipsma et al., 2015). The findings of this study were also consistent with the findings of previous research (Sipsma et al., 2015). The researchers also applied several covariates from multiple influence levels derived from the ecological systems theory developed by Bronfenbrenner (1979) to control for any other potential influences (Sipsma et al., 2015). The findings of this

research showed a unique application of the ecological systems theory and indicated its fit for use in studies pertaining to sexual health.

Other researchers applied the ecological systems theory to evaluate policy and strategies regarding HIV. Prado et al. (2013) posited that HIV continues to excessively affect ethnic minority youth. The continuing health disparities suggest that even though current preventive strategies have been effective, the strategies have not greatly reduced the influence of HIV on the ethnic minority youth population (Prado et al., 2013). Macrolevel interventions (policy changes) could possibly influence the HIV epidemic and reduce the current HIV disparities (Prado et al., 2013). The aim of Prado et al.'s research was to evaluate, develop, and disseminate current interventions and to integrate a macro and individual perspective. The researchers used Bronfenbrenner's (1979) ecological systems theory and found that it provided a useful framework to examine the multidimensional macrolevel aspects linked to the HIV epidemic in youth (Prado et al., 2013). HIV infection of young people is impacted by a variety of factors, including biological, genetic, interpersonal individual, and social and economic (Prado et al., 2013). The factors mentioned were mapped onto the four subsystems of the ecological systems theory that explain the complex stimuli on adolescent development, including macrosystems, exosystems, mesosystems, microsystems, and interpersonal psychological factors (Prado et al., 2013). The researchers found that psychologists as well as behavioral scientists could have a great influence on reducing the effect of HIV by incorporating a macrolevel approach to proposed HIV prevention strategies (Prado et al., 2013).

Similarly, Colarossi et al. (2014) used Bronfenbrenner's (1979) ecological systems theory to evaluate the acceptability and feasibility of a parental sex education program instructed by peer educators within a community setting. The sex education program is a curriculum-based intervention program where parent peer instructors present new information regarding sexual development, while providing role modeling as well as social support to parents, caregivers, and guardians of youth (Colarossi et al., 2014). The aim of this program was to enhance knowledge and parenting skills (Colarossi et al., 2014). Furthermore, the participants were to receive support from each other through discussions of sexuality, intimacy with their children, as well as the monitoring of adolescent behaviors (Colarossi et al., 2014). In the program workshops, parents receive information on health facts, sexual development, and communication techniques, yet are encouraged to take their own initiative when communicating with their children (Colarossi et al., 2014). Participants were divided at random into intervention or control groups and completed pre- and post-intervention surveys (Colarossi et al., 2014). The program was found to be highly acceptable and feasible to the 71 parents who participated, and findings also indicated that the implemented curriculum was with applied with fidelity and instructional quality (Colarossi et al., 2014). The initial research data indicated promising outcomes for increased parental communication, knowledge, and monitoring their children (Colarossi et al., 2014). This research showed the application of the ecological systems theory within a community, and illustrated the positive effect individuals have on each other when they interact, with leadership, around sexual health topics.

The ecological systems theory (Brofenbrenner, 1979) as a theoretical framework was well suited for this research as it may explain the reluctance on behalf of policymakers, educators, or institutions to accept and integrate evidence-based sex education material into curricula and may also shed light on the influence of sex education teachers' perceptions on their students. The theory also underpins how the divisiveness and polarization between groups with opposing views often fail to reassess a position even if emerging evidence proves necessary. The previous applications of the ecological systems theory have shown how this theory can be applied on a personal, community, or institutional level. Last, the ecological systems theory provides context to the somewhat static nature of sex education policy and the challenges surrounding meaningful policy change

## Sex Education Policy

Sex education in the United States has been around for several decades; however, the spread of STDs and STIs as well as unwanted pregnancies have not yet been eradicated. Breuner et al. (2016) defined sex education as educating about sexual reproduction, human sexuality, intimate relationships, sexual activity, human sexual anatomy, sexual orientation, STIs, gender identity, contraception, abstinence, as well as reproductive rights and responsibilities. For over 40 years, sex education has been deemed critically important, yet it remains a contentious policy and public health issue in the United States (Hall et al., 2016). An epidemic of unwanted pregnancies amongst adolescents started in the 1960s, and the further public health struggles of HIV/AIDS started in the 1980s (Hall et al., 2016). These public health concerns have forced the

need, acceptance, and implementation of formal sex education for adolescents on significant topics like condoms, contraception, and STIs (Hall et al., 2016). In the late 1980s, there was comprehensive implementation of programs on school and community levels countrywide that resulted in significant improvements of adolescents' sex education 1988 and 1995 (Hall et al., 2016). However, late in the 1990s, a welfare reform was launched, promoting only abstinence-until-marriage-based sex education by the U.S. government for adolescent reproductive and sexual health (Hall et al., 2016).

The rhetoric at the federal level which supports abstinence-only education can make it difficult for educators to know what to teach in the classroom thus choosing to avoid certain topics altogether. Doug Kirby made great strides in the sex education field through rigorous research that resulted in innovative, critical insights on strengthening evaluation, programs, and policies (Kantor, Rolleri, & Kolios, 2014). Even though evidence-based research has become standard practice to guide policy, the government takes years to acknowledge new evidence (Cairney, et al. 2012). Mendes, Plaza and Wallerstein (2016) also observed that even though a common view of well-being advancement programs is that they are purely objective health improvement initiatives, often implemented by behavior change, yet an opposite view has started to take root, which implies that health advancement efforts are vulnerable to the influence of political power and could depend on the person wielding that power. Health advancement efforts that are particularly at risk include those seeking to impact the social indicators of heath and health policy (Mendes et al., 2016). Moreover, Breuner et al. (2016) posited that sex

education has been found to assist in preventing and reducing the risks of unwanted teen pregnancies, HIV, and STIs for adolescents and children in the US.

After the initial struggles for sex education, the current struggle surrounds the accepted sex education curricula and standards, as well as high rates of unwanted pregnancy and STD transmission. Currently, regardless of the significant progress in science, the implementation of an equitable, truly modern, and evidence-based model for broad sex education is still inhibited by sociocultural, political, and systems obstacles (Hall et al., 2016). However, Herbert, Henry, Sherwood-Laughlin and Angermeier (2014) noted that, as stated in the Future of Sex Education Initiative (2012), there were currently definite guidelines established by the National Sexuality Education Standards (NSES), for individuals in positions of responsibility in schools for sexual education. The NSES were constructed to give a reasoned exposition of principles for teaching evidence-based sexuality education (Herbert et al., 2014).

The importance of sexuality standards for current educators who are in positions of responsibility in schools for sexuality education is evident, as well as assisting in the preparation of sexual health educators for the future in academic institutions through training programs for teachers (Herbert et al., 2014). The NSES gives sex education teachers a plan to be able to provide sexual health information that are developmentally appropriate (Herbert et al., 2014). These standards enable teachers and school administrators to present community members and parents with a well-ordered approach to educate the students which consecutively, would hopefully minimize a few of the concerns and fears in a school setting about the teaching of sexuality education (Herbert

et al., 2014). However, stating that there were definite guidelines does not indicate that teachers are receiving the proper training to follow these guidelines explicitly, or that the guidelines are being implemented. Currently, the application of federal funds and policies are determined at the state level, districts, as well as school boards (Hall et al., 2016).

Even though these guidelines exist (Herbert et al., 2014), McNeill (2013) stated that school policy in the US and sex education curricula reproduce and recirculate gendered and racialized norms of familial attachment and desire, and about what is appropriate for healthy American citizens. Carr and Packham (2017) added that the US, aside from one other country, had the highest teenager birth rate amongst developed countries in 2011. As such, efforts to decrease teenager pregnancies include that several states enacted policies that require abstinence-based sex education (Carr & Packham, 2017). However, Lerner and Hawkins (2016) found that abstinence-until-marriage-based sex education in public schools limited the liberty, welfare, and security of adolescents with poor outcomes. Millner, Mulekar and (2015) found that there was strong parental support for a more comprehensive approach to sex education that goes beyond abstinence, and the public policy-makers should take note and apply resources to implement evidence-based sex education programs.

The following research indicated the inner workings of implementing new policy, and the difficulties that there may be when implementing new sexual health policies. This research study attempted to understand the interaction of politics and health advancement through community-based participation by the application of a theoretical model focused on the power context, the roles of diverse stakeholders within the power context, and the

correlation between other change strategies and political levers to the most sustainable health advancement interventions directed towards the change of health policy (Mendes et al., 2016). As a model of change processes and power dynamics, the researchers presented a case study concerning a health advancement coalition, New Mexico for Responsible Sex Education (NMRSE; Mendes et al., 2016). The NMRSE was established in 2005 as a result of federal policies demanding abstinence-only education (Mendes et al., 2016). The NMRSE also include policy-maker allies, community activists and New Mexico Department of Health staff for health advancement (Mendes et al., 2016). The researchers administered semi-structured stakeholder interviews and evaluated the political-context analysis from the view of the stakeholders by the application of an adapted Mayer's 'power analysis' instrument (Mendes et al., 2016).

Mendes et al. (2016) identified various perceptions of sustainability and health advancement policy change, which included: the significance of group of diversified stakeholders working together as allies and social networks; the distinct position of power they possess in their political contexts; science's role versus support pertaining to change processes; the specific challenges that public sector health advancement professionals face; also other facilitators competing against boundaries to action (Mendes et al., 2016). Limits imposed on state employees by federal and state policies have hindered them from effectively engaging in health advancement advocacy, which is one problem that arose (Mendes et al., 2016). The results of the investigation included a refined theoretical model, a power-analysis instrument, and new understandings pertaining to the

interchange of power and the strategies of stakeholders in the sustainability of health advancement and health in all policies (Mendes et al., 2016).

There is a need for standardized teaching for the content and practices involving sex education. Barr et al. (2014) stated that teaching sex education to assist with adolescents' sexual development as well as overall sexual health is a necessity. The literature continuously indicates high teen pregnancy rates, sexually transmitted disease (STD), and human immunodeficiency virus (HIV) infections among adolescents in the US, as well as vast public support for sex education (Barr et al., 2014). The researchers attempted to underpin the need for National Sexuality Education Standards and focused on enhancing teachers' preparation to deliver sex education. The aim of an expert panel (Future of Sex Education Initiative) was to develop indicators and standards that addressed the specific elements involved in sex education instruction, in order to develop teacher-preparation standards (Barr et al., 2014). The panel identified seven indicators and standards that addressed the ambiguity of professional diversity, disposition, and equity, knowledge of content, professional and legal ethics, planning, implementation, as well as assessment (Barr et al., 2014). The National Teacher-Preparation Standards for Sexuality Education presented the first unified attempt to assist sex education teachers to be more competent in teaching theory, methodology, practicing pedagogy, content, as well as skills, specific to sex education (Barr et al., 2014). However, higher education is essential to ensure the success of standards (Barr et al., 2014).

While great improvements have been made in the sex education field since the 1980's, the abstinence-only-approach to sex education may currently not be the best

option for sex education any longer. Several researchers stated the need for more specific standards when teaching sex education (Barr et al., 2014; Hall et al., 2016; Mendes et al., 2016). Researchers also described that policy is preventing broad, evidence-based sex education curricula (Hall et al., 2016), and that proper sex education could reduce unwanted pregnancies and the transmission of STIs and STDs (Breuner et al., 2016). The findings from these researchers indicated the need for more research on evidence-based practices, combined with teachers implementing sex education curricula with fidelity.

## Sex Education Material

The hesitation to mandate the use of evidence-based sex education information by K-12 health educators has adverse effects on a student's ability to obtain pregnancy prevention resources or seek testing for sexually transmitted diseases (STDs). These adverse effects as explained by Gonzalez, Karczmarczyk, Douress and Scott (2016) to lead to feelings of guilt, shame, and confusion, if students perceive their behavior to be inconsistent with the viewpoint supported in the classroom. Over the past several decades, a change from the aim of preventing pre-marital sex to managing the outcomes is evident, yet, even though these changes occurred there are still continuous arguments around the inclusion or exclusion of certain topics in sex education (Iyer & Aggleton, 2015). Workman, Flynn, Kenison and Prince (2015) added that continued efforts were a necessity to decrease teen pregnancies in the US and implementing evidence-based curricula could assist in meeting this aim.

It is a necessity for all children to receive timely sexuality and puberty education (Collier-Harris, & Goldman, 2017). Providing this education is primarily the school's

responsibility, as schools are equipped with knowledge on teaching and learning processes, opportunities, competency programs, as well as resources for age-appropriate knowledge, cognitive, and skills development for their students (Collier-Harris, & Goldman, 2017). Quality sex education guidelines have been created for teachers to use in many countries (Collier-Harris, & Goldman, 2017). Yet, there is still little consensus regarding the motivations of and the subject matter of sex education (Arons et al., 2016; Iyer & Aggleton, 2015; Strasburger & Brown, 2014). The type of sex education curricula promoted in the classroom directly impacts how adolescents make important lifestyle decisions. Lerner and Hawkins (2016) added that if individuals waited until after middle school to have sex, they were more likely to use condoms and have sex with fewer partners than individuals who have sex at an earlier stage, resulting in lower risks of unintended pregnancies and STIs. The researchers also recommended incorporating theory-informed, broad sex education into theory-informed abstinence education (Lerner & Hawkins, 2016). Furthermore, Hirst (2013) postulated that sex education that acknowledges desire and pleasure for adolescents was still absent, which was corroborated by Ollis (2016) and Lamb, Lustig and Graling (2013), despite requests for its inclusion in sex education for more than 20 years. Moore (2017) posited the use of poetry as a way to learn about sex education topics like consent, healthy relationships, sexual assault, as well as safe sex practices. There is a significant need for evidence-based curricula in sex education.

In agreement with the above researchers, Bridges and Hauser (2014) stated that young people face significant decisions regarding sexuality, relationships, and sexual

behavior as they grow up, and that these decisions impact their well-being and health for their entire life. Young people also deserve a healthy life, but they need the required skills to make healthy decisions, and society is responsible to safeguard the youth and to provide them with broad sexual health education (Bridges & Hauser, 2014). The researchers reiterated that more comprehensive sexual health education was needed, as mere discussions regarding topics such as contraception or abstinence is not enough to make a meaningful impact on the lives of young people (Bridges & Hauser, 2014). There is a dire need for sex education that provides young people with age-appropriate, honest information, as well as the skills they need to take responsibility for their own health and overall well-being (Bridges & Hauser, 2014). The International Conference on Population and Development has also repeatedly requested governments to provide young people with broader sexuality education (Haberland & Rogow, 2015).

There are a variety of approaches for school-based sex education, of which one, as previously mentioned is an abstinence-only approach that indicates that sexual activity outside a marriage could have a harmful psychological influence (Ballonoff Suleiman, Johnson, Shirtcliff, & Galván, 2015). Ballonoff Suleiman et al. (2015) added that recent research added to the understanding of the neural framework regarding romantic love, sexual desire, marriage, as well as sexual behavior, and provided a better understanding of the development of the adolescent brain. The researchers reviewed the available literature on neuroscience and attempted to clarify the evidence surrounding the association between adolescent sexual and romantic behavior and neural development, as well as what is needed for future research (Ballonoff Suleiman et al., 2015). The

researchers found that neuroscientific evidence does not yet provide clear conclusions regarding the benefits or costs of early sexual behavior and/or romantic relationships (Ballonoff Suleiman et al., 2015). However, the research does indicate that the provision of developmentally appropriate sex education adds to long term sexual health for adolescents (Ballonoff Suleiman et al., 2015). In another study, Carr and Packham (2017) found that abstinence education at the state-level had no influence on unintended pregnancies rates for teens or abortion but may influence STD rates some states. Furthermore, developing practices and policies for school-based sex education, which are based on current research, is needed to best assist the long term reproductive and sexual health of adolescents (Ballonoff Suleiman et al., 2015).

There may be a possible bigger problem surrounding sex education curricula: the lack of consensus regarding the definition and goal of approaches. Even though a rights-based approach (pertaining to the rights of adolescents) to sex education has become a popular discussion over the past years, Berglas, Constantine and Ozer (2014) posited that consensus regarding the goals, concepts, and basic assumptions of a rights-based approach was lacking. A lack of consensus regarding the definition of a rights-based approach could limit the conversations regarding its evaluation and implementation, and negatively impact the opportunity to critique and explore this new approach to sex education (Berglas et al., 2014).

During 2012, the researchers conducted in-depth interviews with 21 United States and international sex education experts (Berglas et al., 2014). Utilizing an iterative approach, the data were coded and analyzed in order to understand the perspectives of a

rights-based approach (Berglas et al., 2014). The results indicated that a rights-based approach could be described as the combination of four factors; a principle that adolescents have sexual rights, expanded goals for sex education beyond just reducing teen pregnancy and STDs, broad curricula content including sexual orientation, gender norms, sexual pleasure and expression, violence, as well as individual responsibilities and rights in relationships, and last, teaching strategies that engage adolescents in critical thinking regarding sexual choices and sexuality (Berglas et al., 2014). These key elements were identified consistently by all the participants across all the professional disciplines as well as geographic foci (Berglas et al., 2014). Furthermore, all participants raised questions surrounding the usefulness of a rights-based approach, specifically in the US (Berglas et al., 2014). Since the questions regarding implementation of a right-based approach and the impact thereof on sex education remain unanswered, the proposed definition provides multiple avenues for stakeholders to better adolescent sexual health (Berglas et al., 2014).

In another study, conducted by Rohrbach et al. (2015), the researchers examined the effectiveness of right-based research. The researchers found that the rights-based curriculum approach had a great, positive impact on behavioral and psychosocial outcomes 1 year after the curriculum was taught (Rohrbach et al., 2015). However, a rights-based approach may not be adequate to influence the future sexual behavior of youth (Rohrbach et al., 2015). The findings of these studies suggest that further research is needed on this approach, and that it might benefit students to utilize a right-based approach in conjunction with another approach.

Research indicates the need for more specific instructions with regards to sex education curricula, and better training for teachers. Carrion and Jensen (2014) postulated that there are significant differences in sex education curricula in government schools in the US, which also reflects its questioned goals and nature. The researchers collected data from interviews with 50 sex educators who are employed in public schools in the Midwestern US in order to explore the processes sex education teachers follow to determine how and what to teach their students (Carrion & Jensen, 2014). The researchers utilized argument sphere theory as a theoretical framework and found that sex education teachers often resolved the different arguments they faced through deliberative conflation as well as deliberative co-optation (Carrion & Jensen, 2014). Deliberative conflation means using criteria from a variety of argumentative spheres to determine the evidence appropriate for a sphere (Carrion & Jensen, 2014). Deliberative co-optation means using discourse practices from a sphere to create arguments grounded in another sphere (Carrion & Jensen, 2014). These processes both enable the teachers to reconcile otherwise incommensurate arguments, yet the means through which it occurs fosters ambiguous and unstable curricular decisions (Carrion & Jensen, 2014).

Alternatively, there are also current gaps in sex education curricula in the US. Gorski, Davis, and Reiter (2013) stated that homophobia and heterosexism are pervasive ideologies in US educational institutions. However, current research has revealed that teacher education greatly lacks to address the concerns of lesbian, gay, bisexual, transgender, questioning, and queer (LGBTQ; Gorski et al., 2013). The researchers conducted a content evaluation from multicultural education courses of 41 syllabi that are

taught in the US focusing on the degree to which the concerns of LBGTQ were omitted or included in the design of the courses (Gorski et al., 2013). This evaluation was conducted in an effort to better comprehend this phenomenon in the context of related courses and multicultural education (Gorski et al., 2013). Additionally, the researchers also analyzed data from 80 participants via a survey to expose both the nature by which, and the likelihood that, LGBTQ concerns were incorporated into their courses (Gorski et al., 2013). The participants were educators in multicultural education courses, providing accreditation to teachers, in the US (Gorski et al., 2013). In conclusion, the research shows that LGBTQ concerns are still largely ignored in multicultural coursework for teacher education in the US (Gorski et al., 2013). It is also shown that even when LGBTQ concerns are included and covered that these concerns are generally addressed out of context as to mask heteronormativity (Gorski et al., 2013).

To further reiterate the magnitude of the sex education curriculum problem, the findings of the following empirical research highlighted the need for relevant, evidence-based sex education curricula. Even though SRE signifies a main arm in policies to properly prepare and empower young people, as well as better their overall sexual health, SRE lacks statutory status, as government assistance is not up to date and about 30% of UK schools has low quality SRE (Pound, Langford, & Campbell, 2016). Pound et al. (2016) aimed to determine if the current SRE provision met the needs of young people. The researchers conducted a synthesis of the available qualitative research regarding the perspectives of young people of the SRE provided by their school (Pound et al., 2016). The studies that were included in this literature synthesis were conducted in Ireland,

United Kingdom, the United States, New Zealand, Australia, Brazil, Iran, Japan, Canada, and Sweden (Pound et al., 2016). Furthermore, the research included studies of students in full-time education who were aged 4 to 19, young adults under 19 years in different education settings, and adults under 25 years, to discuss their former school experiences of SRE (Pound et al., 2016). After conducting a search of the studies, 69 publications were ascertained, but only 55 studies were included for analysis (Pound et al., 2016).

The synthesis indicated that even though sex was a loaded and possibly embarrassing topic, schools were reluctant to take this into account and attempted to teach SRE as any other subject (Pound et al., 2016). The young people reported feelings of vulnerability in SRE; young males were anxious to hide a lack of sexual knowledge, and young females were afraid of sexual harassment should they participate (Pound et al., 2016). Furthermore, schools appeared reluctant to accept that some of the young people were sexually active, which resulted in SRE that was not in line with the reality of young people's lives (Pound et al., 2016). Young people also reported that SRE could be gendered, negative, as well as heterosexist (Pound et al., 2016). Moreover, the young people stated their dislike in their SRE teachers because of a lack of anonymity, blurred boundaries, embarrassing moments, and poor training (Pound et al., 2016). The researchers concluded that SRE should more positive of sex as a topic and should be taught by experts who are able to uphold boundaries with students (Pound et al., 2016). Also, schools have to acknowledge sex as a distinct subject with specific challenges, and the reality of young people's sexual activity, as young people will otherwise disengage

from SRE continuously, which leads to lost opportunities to safeguard young people and empower them to improve their sexual health (Pound et al., 2016).

With the variety of political affiliations in the US, indicating various morals and values, it may be a challenge to achieve consensus regarding sex education curricula and the topics discussed in the classroom. Sex education, specifically in southeastern US, is still steeped in an abstinence-based approach, resulting in insufficient education for sexually active students, however, science education could facilitate the discussion of controversial topics like sex education (Gill, 2015). The findings of the following study show the support of parents to include sex education, regardless of political background, however it does not indicate their involvement in the process. Kantor and Levitz (2017) stated that sex education was perceived to be of high importance, as indicated by an excess of 93% of parents for both high and middle school. The aforementioned position on sex education is greatly bolstered by parents, notwithstanding any political affiliation (Kantor & Levitz, 2017).

In this study the researchers explored whether the political affiliation of the parents influenced their perspectives on sex education (Kantor & Levitz, 2017). The sample included a varied group of 1,633 parents with children in the age range of 9 to 21 years (Kantor & Levitz, 2017). Parents exceeding an amount of 89%, which identified as Democrats or Republicans, endorsed sexual education, including topics like birth control, sexually transmitted diseases (STDs), puberty, abstinence, and healthy relationships in high school (Kantor & Levitz, 2017). Of the topics mentioned above, more than 78% of parents that identified as Democrats or Republicans supported the inclusion of sex

education in middle school (Kantor & Levitz, 2017). Democratic parents were more likely to bolster the inclusion of the aforementioned topics than parents who identified as Republicans; key demographic factors were taken into account and controlled for (Kantor & Levitz, 2017). Nonetheless, a vast majority of parents that identify as Republicans prefer that all the above mentioned topics be included in the sexual education of their children (Kantor & Levitz, 2017). There is a strong agreement among the parents of the Democrats and Republicans that sexual education should include a broad range of topics (Kantor & Levitz, 2017). In agreement Millner, Mulekar and Turrens (2015) also found an overwhelming support of parents in Alabama, in a conservative southern US metropolitan area for sex education that goes beyond abstinence, while Barr et al. (2014) also found overwhelming support from middle school parents for the inclusion of sex education.

The current literature on sex education material indicated a continued lack of consensus regarding the curriculum to follow, the topics to discuss, the involvement of teachers, as well as the level of training needed for teachers (Arons et al., 2016; Iyer & Aggleton, 2015; Strasburger & Brown, 2014). While some states still apply an abstinence-only approach (Ballonoff Suleiman et al., 2015; Carr & Packham, 2017), other researchers have indicated that the pleasure component of sex should also be included in sex education (Hirst, 2013; Lamb et al., 2013; Ollis, 2016). Researchers also stated that several students are sexually active, and that an abstinence only approach leaves them without proper knowledge on sex and sexual activity (Pound et al., 2016). Alternatively, some studies indicated the overwhelming support of parents to include all

topics in sex education, above and beyond abstinence only (Barr et al., 2014; Kantor & Levitz, 2017; Millner et al., 2015). There were also positive findings for further training for educators (Carrion & Jensen, 2014). The literature indicated the need for further and more comprehensive research on sex education material to determine the inclusion of topics and possible options to improve the teaching thereof.

## Personal Beliefs in Sex Education

A teacher's perspective on sex may be present when they teach sex education in the classroom. Young people often hear contradicting messages regarding sexuality that includes unequal gendered power relations (Ragonese et al., 2017). Policy provides a guideline to what should be taught, yet teachers can decide what to include or exclude in their teachings according to their discretion, shedding light on the significance of this issue as teacher perspectives have an extensive impact on students (Abbott et al., 2016). Arons et al. (2016) also added the importance of implementing curricula with fidelity. The need for evidence-based programs has increased, yet educators often cannot properly implement and replicate the programs as designed (Demby et al., 2014), and without the influence of personal beliefs (Whitman & Bidell, 2014). Controversies regarding sex education have complicated, but often ignored, implications for teachers related to stigma (Selzer King, Jensen, Jones, & McCarthy, 2017). Sex education teachers may require more assistance when compared to other teachers.

Since sex education is such a personal subject, subjectivity or personal beliefs may affect sex educators in their teaching of sex education. Regardless of the significant resources being devoted to sex education, the US is still experiencing high numbers of

unplanned pregnancies as well as STDs amongst adolescents (Williams & Jensen, 2016). Williams and Jensen (2016) posited that there was a lack of research examining the influence of sex educators in the increase or reduction of pregnancies and STD's. The researchers conducted a qualitative study and interviewed 50 educators of sex education regarding their beliefs in the classroom, who were employed at public schools in a Midwestern, US state (Williams & Jensen, 2016). Twenty-two of the interviewees reported feeling a conflict with identification and gave examples of how they had experienced subjectivity in their employment (Williams & Jensen, 2016). The researchers concluded that the findings provided insight into the understudied communicative beliefs of sex educators and conflicted identification by indicating the sources of conflict as well as the discursive strategies when dealing with conflict (Williams & Jensen, 2016). The findings indicated that the sex educators who experienced conflicted identification and who also had nested or multiple identifications within their predominant professional identity could be somewhat protected from organizational dis-identification (Williams & Jensen, 2016).

Sex education is a contested and controversial issue that has resulted in excessive debates regarding its contents, aims, pedagogy, methods, and desired outcomes (Simovska & Kane, 2015). During the 4th European Conference of Health Promoting Schools, the debates indicated the need for broader discussion on sex education, specifically regarding what encompasses the health-promoting school (Simovska & Kane, 2015). The need to endorse broader and positive socio-ecological views was highlighted, including a critical educational approach and sexual health for sex education

(Simovska & Kane, 2015). The delegates conference and other researchers globally were invited share their thoughts, which lead to six papers that were included in a overall review (Simovska & Kane, 2015). The review highlighted the existing tensions, contrasts, potentials, and barriers in how sex education is taught to children internationally (Wales, Russia, China, and the US). The need for theoretical/conceptual frameworks, appropriate content, timing, modes of delivery, attitudes of stakeholders, and comprehensive evaluation was also stated (Simovska & Kane, 2015).

In correlation with Dewhirst et al. (2014) and Johnson et al. (2014), the following research underpinned the need for proper teacher training and confirmed the influence of their personal beliefs in their teachings. This study's purpose was to examine the implicit and explicit values concerning sexuality education that is communicated by health services staff and teachers in a sizable, urban school district located in Indiana (Herbert et al., 2014). Qualitative and quantitative data was collected by use of a survey from a sample of 159 sexuality education staff members (Herbert et al., 2014). The results greatly indicate staff members with the responsibility of sexuality education courses were largely governed by their own beliefs and values (Herbert et al., 2014). In addition to this sexuality educators have insufficient guidance pertaining to teaching methodology and content (Herbert et al., 2014). The results could potentially impact the professional and pre-service training of sexuality educators in school-based settings (Herbert et al., 2014). This data could also assist educators to more efficiently meet the needs of high and middle school students as pertaining to sexual health education (Herbert et al., 2014).

Sex education is currently a global issue, as explicit discussions regarding consent had not been included in Canadian sex education, and such a discussion has the potential to help students to talk about their boundaries, limits, and desires in their relationships (Kelly, 2017). More recently, teachers are expected to teach consent in Ontario in elementary and high schools, as a result of the Health and Physical Education curriculum update (Kelly, 2017). However, consent in undefined in the curriculum, leading to teachers having to interpret and conceptualize its meaning in the absence of clear guidelines to its meaning and how to convey it to students of different ages (Kelly, 2017). The researcher conducted a qualitative study and collected data from the available literature and semi-structured, one-on-one interviews with two sex education teachers (Kelly, 2017). Data analysis provided four main themes regarding the connections between current teacher practice and research (Kelly, 2017). The themes regarded teacher recognition how important it is to teach consent to students, how it contributes to students' lives, and how teachers teach consent by gender (Kelly, 2017). The findings of this research highlighted the struggles faced by teachers to understand consent and to translate its meaning to their students so that they are able to understand and showed the need to teachers for more additional support and resources to teach consent effectively (Kelly, 2017).

The findings of the following study reinforce the possibility of a teacher's perception to influence the sex education of their students. South Africa has a similar problem as found in the US, with regards to high rates of unwanted pregnancy, HIV, and STI rates indicating a lack of education of youth on these matters (DePalma & Francis,

2014). DePalma and Francis (2014) stated that sex education is often taught as component of Life Orientation, a subject that teaches a variety of life skills. The researchers conducted a qualitative study where they interviewed 25 Life Orientation teachers in the Free State Province in RSA (DePalma & Francis, 2014). Data were collected through semi-structured interviews, and the researchers aimed to explore the means through which teachers perceive gender to influence students' beliefs of their sexuality (DePalma & Francis, 2014). The researchers utilized heteronormativity as a conceptual framework for the analysis of the data, which indicates that males and females are socialized into various gender roles that propagate the patriarchy that is viewed as the norm (DePalma & Francis, 2014). The findings indicated that the teachers had a tendency to perceive boys to be predatory and girls to be victims of sexual acts (DePalma & Francis, 2014).

Even though these perceptions reflect everyday beliefs in South Africa, and several other countries, these perceptions, or expectations, may be conveyed and unconsciously reinforced in educational interventions that aim to protect girls (DePalma & Francis, 2014). As also found in the study conducted by Gorski et al. (2013), there are similar concerns of heteronormativity for LGBTQ concerns. McNeill (2013) also examined the encouragement of heteronormativity, described as white, marital, monogamous, middle class heterosexuality, in school policy in the US, and posited that current sex education standards, policies, and curricula indicate incongruity towards LGBTQ families and individuals. School policy in the US and sex education curricula reproduce and recirculate gendered and racialized norms of familial attachment and

desire, and about what is appropriate for healthy American citizens (Lynch, 2017; McNeill, 2013). Furthermore, Abbott, Ellis and Abbott (2015) also found that when teachers were promoting their inclusivity, their sex education teachings uphold heteronormativity, in a way that they position LGB or same-sex practices outside their classroom, resulting in these young people to receive insufficient sex education. The findings of these researchers indicate that much work is still left regarding sex education curricula and the teaching thereof.

Francis and DePalma (2014) also conducted another study in South Africa, regarding teacher perspectives and what is taught in the classroom. An estimate of 8.7% of young South Africans has HIV, and as such, sexual health education is of a critical importance in South Africa. Concerning mainly UK and US contexts, the significance of comprehensive and abstinence-only sexual health education programs has been debated excessively (Francis & DePalma, 2014). The perspective of comprehensive and abstinence-only sexual health education has greatly been represented as irreconcilable; however, extensive interviews with 25 Free State Province life orientation teachers in the RSA revealed that they may endeavor to integrate aspects of the two approaches into an amalgamated perspective (Francis & DePalma, 2014). This perspective promotes abstinence as the only acceptable choice young people should make whilst acknowledging the importance of broader concerns such as safe sex and relationships in comprehensive sexuality (Francis & DePalma, 2014). The researchers endeavored to attain the meaning of the aforementioned amalgamated perspective and also offer two arguments: that the unique context of SA challenges the concept that these two opposing

perspectives cannot be intertwined and that the two perspectives could strategically be joined to advocate a comprehensive sexuality education, without estranging young people through moralism, and by building a feeling of responsibility and agency (Francis & DePalma, 2014). Even though this research did not attempt to understand the influence of teacher perspectives on students, it did indicate the possible influence of teacher perspectives and what is taught in the classroom.

The following researcher also found evidence of the influence of a teacher's perception of sexual health on their students. Elliott (2014) analyzed how sexual health educators use the neoliberal rhetoric of individual responsibility in their abstinence-only and comprehensive lessons by way of ethnographic observations based on two high schools. The researcher focused on the evaded and hidden lessons that are taught in the classroom and not only on the on the intended and explicit lessons of individual responsibility (Elliott, 2014). The findings showed that sexual health educators depend on and emulate race, gender, sexual and class inequalities in their lessons on individual responsibility (Elliott, 2014). This set forth an image of the good sexual citizen as consequence-bearing, self-regulating and self-sufficient, what the researcher called the responsible sexual citizen (Elliott, 2014). Nonetheless, sexual health educators, in their evaded and concealed lessons, fail to emphasize the degree to which the lives of people are reliant on and intertwined with others, implying that the rhetoric of individual responsibility is inadequate for apprehending the realities and complexities of people's sexual lives (Elliott, 2014). The findings underpinned the significance of examining the

negotiation and translation at the ground level, in the classrooms, of neoliberal sexual health education policy (Elliott, 2014).

The perspectives of teachers in sex education may influence what is taught in class, and inherently the impact on the long term sexual health outcomes of students. The literature indicated significant challenges regarding LGBTQ subjects (Lynch, 2017; McNeill, 2013), as well as heteronormativity, including gendered and racial norms (DePalma & Francis, 2014; Francis & DePalma, 2014). The influence of perspective, combined with a lack of guidelines and training surrounding sex education may have a significant negative influence on the knowledge of students, and further research is needed to determine how to reduce the influence of teacher perspectives.

## Teaching Sex Education

The last 10 years showed ventures toward evidence-based sex education programs, yet most of these programs need some adaptation, and the correct adaptation is as significant to success as selecting the program (Hunt & Ott, 2014). Abbott, Ellis and Abbott (2016) added that little focus has been on the method teachers use to formulate their provision of sex education material, and while diversity is required, the teacher has the power to include and exclude topics based on their discretion. Without the proper extensive curriculum and policy support, and appropriate training for educators, educators are not able to make informed decisions that better diversity (Van Leent & Ryan, 2016). Moreover, teachers could easily address cases of gender and sexual stigma amongst students, yet if and why they intervene is still unknown (Collier, Bos, & Sandfort, 2015).

As with most countries, the Reunion Island also face the same challenges regarding contrasting cultural and social backgrounds when promoting sex education, taking into consideration the significant influence that these factors have on health-related behavior, as well as the sensitivity and personal nature of these topics (Balcou-Debussche & Rogers, 2015). The "Health Passport" project was implemented in Reunion Island, with its unique social divisions as well as contrasting cultures, acute poverty, and public health issues as a teaching aid for educators (Balcou-Debussche & Rogers, 2015). After only 3 years, this project has been implemented and used by more than 400 teachers, with about 3,000 pupils and their families benefitting from it (Balcou-Debussche & Rogers, 2015). This approach was favored based on the importance of inclusive sex education for continuous health promotion in schools (Balcou-Debussche & Rogers, 2015). In the US however, sex education and sex education curricula that do exist have been developed based on political standpoints, which often also limits the teaching of sex education that is diverse regarding sexuality, race, and culture (Abbott et al., 2015).

According to Wolfe (2018) the continuous use and normalization of the white, circumcised, banana penis used in sex education classes, with little or no reference to the vagina or vulva is creating a premise of which bodies matter, how sex materializes, and is both sexist, and racist. As previously stated, a teacher with heteronormative beliefs may project those beliefs onto their students, leaving LGBT students vulnerable and uneducated regarding their sexuality and safe sex (Abbott et al., 2015). Researchers have posited the need for more inclusive sex education curricula and teaching (Abbott et al.,

2015). According to Smith and Payne (2016), schools are areas that often emulate the gendered cultural majority, leaving little space for gender transgressions and diversity. The researchers examined how US teachers perceived teaching transgender students after they attended a professional development course (Smith & Payne, 2016). The teachers resisted gender-affirming pedagogy and were preoccupied with the logistics to accommodate transgender students and their safety (Smith & Payne, 2016). Educators' failure or resistance towards making structural changes indicates the narrow interpretations of inclusive schooling (Smith & Payne, 2016).

The importance and influence of sex education is more significant than one might realize. Vivancos, Abubakar, Phillips-Howard, and Hunter (2013) aimed to quantify the efficiency of sexual education at the school level on unsafe sexual behavior as well as the acquisition of STI's in adulthood. The researchers collected data through an online survey of sexual behaviors and attitudes, completed by 711 students at a university in Britain (Vivancos et al., 2013). The questions in the survey included information on where the students learned the most about sex when they were 14, how easy of difficult it was for them to discuss sexual issues with their parents, as well as their age at their first intercourse (Vivancos et al., 2013). Analysis of the survey data revealed that 11% of the students had had unprotected sex 4 weeks before they conducted the survey, and 6.2% of students had had an STI (Vivancos et al., 2013). The age of students for their first sexual experience (11% reduced risk with each year of waiting) as well as school-based sex education (66% lower risk when compared to learning about sex from one's mother) was linked to lower risk of unprotected sex (Vivancos et al., 2013). The factors that were

linked to fewer STIs were the students' age at first sexual experience (17% reduced risk with each year of waiting), school-based sex education (85% reduced risk), learning about sex from same-aged friends (54% reduced risk), and learning about sex from a first boyfriend or girlfriend (85% reduced risk) in comparison with learning from one's mother (Vivancos et al., 2013). The researchers concluded that school-based sex education was effective in reducing the chance of STIs and unprotected sex in early adulthood (Vivancos et al., 2013). The influence of friends in high school could also have a positive influence on the chance of STIs later in life (Vivancos et al., 2013).

Another study found that including parents in the sex education process may enhance sex education curricula. Alldred, Fox and Kulpa (2016) investigated the success of an intervention to familiarize parents with the books used to teach sex and relationship education to 5 to 11-year-old students. The researchers conducted a qualitative case study, collecting data through observations, focus groups, and interviews, pre- and post-intervention, with seven parents and four main stakeholders (Alldred et al., 2016). The intervention was a 7-week program in a London primary school. The parents stated a better understanding of the sex education curriculum and increased awareness, more effective interactions with their children on sex-related topics, as well as positive effects on their attitude towards the school (Alldred et al., 2016). Furthermore, the parents also reported higher confidence to address issues in the sex education curriculum for parents with children aged 8 to 10, even though one mother reported reduced confidence (Alldred et al., 2016). The researchers concluded that to familiarize parents with the curriculum could enhance sex and relationship education, as it has the potential to improve coherence

between the teachers' and parents' lessons to the children involved and can also increase the frequency of discussions surrounding sex-related topics with reduced parental anxiety (Alldred et al., 2016). One weakness of this study was that it only had nine parents who participated in the intervention, however, data triangulation was used which enhances the richness of the data. Also, this study was conducted in London, yet similar findings may be possible for US schools.

The following study did not indicate a significant influence of ethnicity and/or race on sex education, yet it did indicate the frequency of formal sex education in comparison with informal sex education and showed the lack of guidance from parents. Vanderberg et al. (2016) aimed to determine the links between ethnicity and/or race, young females' formal sex education, and parental sex education. The researchers conducted a cross-sectional analysis of 1768 females between 15 and 24 years of age, who completed the 2011-2013 National Survey of Family Growth (Vanderberg et al., 2016). The researchers analyzed the data of the participants regarding their formal sex education, their formal STI education, their formal contraceptive education, and contraceptive education from parents, any sex education from parents, and STI education from parents (Vanderberg et al., 2016). The independent variable was ethnicity and/or race (Vanderberg et al., 2016). Ninety-five percent of the participants reported formal sex education, 92% had received formal STI education, and 68% had received formal contraceptive education (Vanderberg et al., 2016). Furthermore, 75% of the participants indicated no parental sex education, 61% indicated parental contraceptive education, and 56% indicated parental STI education (Vanderberg et al., 2016). US-born Hispanic

females more often indicated parental STI education than white females (Vanderberg et al., 2016). The findings did not indicate any other ethnic and/or racial differences regarding sex education (Vanderberg et al., 2016).

Teachers may be unaware of their negative influence when teaching students, which may be even more problematic when teaching sex education. Schutte et al. (2016) stated the need for comprehensive program implementation regarding sex and health education to be successful but added that it was often overlooked. Teachers are significant in school-based sex education program implementation, yet teachers are often only in a supporting role during the implementation phase (Schutte et al., 2016). The study was conducted in the Netherlands, to ensure the optimal implementation of the school-based sex education program 'Long Live Love' (Schutte et al., 2016). The purpose of this study was to gain a deeper understanding of the systematic development of a web-based intervention to assist teachers in the implementation of 'Long Live Love' (Schutte et al., 2016). Intervention mapping (IM) was applied to develop an evidence- and theory-based intervention (Schutte et al., 2016).

The first step of IM Intervention mapping is to assess the need, followed by formulating change objectives, selecting theory-based practical applications and intervention methods that are believed to be effective, integrating practical application into an organized manner, planning for implementation, implementation, sustainability, and generating evaluation methods to test program efficiency (Schutte et al., 2016). The researchers stated that the teacher's behavior during implementation included inconsistent selection of sections of the program, while not providing all lessons as

intended (Schutte et al., 2016). However, the teachers did not perceive their behavior to be problematic, indicating a discrepancy between actual and perceived thorough support requirements (Schutte et al., 2016). Moreover, the teachers acknowledged a variety of challenges they experienced that may negatively influence implementation quality (Schutte et al., 2016). The web-based coaching intervention was implemented to assist change in teachers' behavior, specifically teachers who lacked intrinsic motivation and who had different perceptions when compared to their actual behavior (Schutte et al., 2016). The IM protocol was useful for guiding the development of the intervention and tailoring it to the needs of the group (Schutte et al., 2016).

Alternatively, teachers should also be aware of sexuality or sexual orientation when teaching students, especially when teaching sex education. Greytak and Kosciw (2014) examined how the beliefs of teachers in the US may be foretelling of their anti-lesbian, gay, bisexual, and transgender (LGBT) harassment and bullying interventions. A survey was administered online to a sample which included 726 US teachers (Greytak & Kosciw, 2014). The regression analysis results showed the frequency of teachers' interventions in homophobic remarks were greatly influenced by factors related to these interventions which included self-efficacy, awareness of anti-LGBT harassment and bullying, awareness of general bullying and harassment, and being acquainted with LGBT people (Greytak & Kosciw, 2014). A factor which was not indicative of intervention was a sense of obligation by teachers to provide a secure school for the youth of the LGBT community (Greytak & Kosciw, 2014). The teacher education implications include: arranging opportunities for teachers to connect with LGBT people;

promoting awareness of anti-LGBT harassment and bullying; and equipping teachers with the necessary anti-LGBT intervention skills (Greytak & Kosciw, 2014).

Similar to Greytak and Kosciw (2014), Meyer, Taylor and Peter's (2015) research also showed the current inequity for LBGTQ students in education, and most prominently health education. Meyer et al. (2015) presented their findings in this paper from a national research study on the practices and beliefs of K-12 educators pertaining to lesbian, gay, bisexual, transgender, and queer (LGBTQ) problems in schools. The participants included over 3,400 educators from Canada, who completed a bilingual (French/English) online survey (Meyer et al., 2015). Participants responded to questions concerning their values pertaining to LGBTQ-inclusive education and human rights, experiences with transphobic and homophobic harassment, perspectives on approval for LGBTQ-inclusive practices and their classroom practices (Meyer et al., 2015). The results indicated that 84.9% of educators support LGBTQ-inclusive education in-principle; yet, only 61.8% in actual practice which is much lower (Meyer et al., 2015). There are also consequential differences in the beliefs and perspectives of lesbian, bisexual and gay identified educators in comparison with straight colleagues pertaining to bullying interventions and curriculum integration (Meyer et al., 2015). Significant insights are offered by the findings for curriculum development, teacher training, and policy and law reform and implementation (Meyer et al., 2015).

There is possible success for sex education taught by nurses or teachers, yet it may be needed to combine both approaches for more success in reducing unwanted pregnancies and the transmission of STIs. Borawski et al. (2015) examined the impact of

an established HIV or STI curriculum, known as Be Proud! Be Responsible!, when this curriculum was used by school nurses and sex education teachers in high school curricula. The participants included 1,357 students, in 9th and 10th grade, and the students were divided at random between teacher-taught and nurse-taught classes (Borawski et al., 2015). Twenty-seven facilitators also took part in the study, of which six were nurses and 21 were teachers (Borawski et al., 2015). The findings indicated that the students who were taught by teachers more often reported their facilitator to be well-prepared, comfortable with the instructional material, and encouraged them to contemplate their health when compared to the experiences of students instructed by a school nurse (Borawski et al., 2015). However, both of the experimental student groups stated significant improvements in knowledge regarding HIV, STIs, and condom use immediately post-intervention, compared to students not receiving sex education (Borawski et al., 2015). Moreover, the group receiving instruction by school nurses stated sustained (12 months post-intervention) and significant changes in beliefs, attitudes, and efficacy, when compared to groups taught by sex education teachers, who stated fewer changes and sustained improvement for condom knowledge only (Borawski et al., 2015). The researchers concluded that teachers and school nurses were effective in relaying reproductive health knowledge to high school students; yet, teaching skills that are technical and interpersonal required to decrease high-risk sexual behavior may need a specific skill set and related experience that sex education teachers might not have (Borawski et al., 2015).

Another study also found that a combined approach to teaching sex education may be beneficial to prevent early sexual intercourse. Grossman, Tracy, Charmaraman, Ceder, and Erkut, (2014) stated that adolescents' unsafe sexual behavior can be reduced by comprehensive school-based sexual education programs. The study purposed to assess the efficacy in the postponement of sex for students in middle school, after participating in a sexual education program of 3 years (Grossman et al., 2014). It also assessed whether the effectiveness of the intervention was influenced by the student's family component (Grossman et al., 2014). The sample for this 3-year longitudinal assessment included 2,453 6th graders who were followed through to the end of their 8th grade year (Grossman et al., 2014). The design of the evaluation used 24 schools that were randomly assigned into comparison and treatment condition groups (Grossman et al., 2014). The multiple logistic regression analysis assessed the groups to note the differences between the two in the postponement of sex (Grossman et al., 2014). The difference between the comparison and intervention groups were shown by 15% less girls and 17% less boys, who had engaged in sex by the end of their grade 8 year, in schools where the aforementioned sexual education program was provided, compared to the schools which were used for comparison (Grossman et al., 2014). The completion of family-based activities during the span of the year of the sexual education program postponed boys from having sexual intercourse (Grossman et al., 2014). Developmentally appropriate, comprehensive, theory-based sexual education programs that incorporate parent involvement could be effective in postponing middle school students from having sex (Grossman et al., 2014). The involvement of parents was particularly significant for boys,

and parents should be encouraged to talk to their sons more frequently and earlier by participating in the family activities (Grossman et al., 2014).

As teaching sex education is a multi-faceted task, it may be beneficial to attempt approaches at improving teachers' ability to teach sex education. Dewhirst, Byrne and Speller (2014) described the content, the practical implementation, and evaluations, of an intervention for sex education teachers between 2012 and 2013. The intervention for pre-service teachers was in the form of a 'Health Day' which aimed to improve their knowledge, confidence, awareness and attitudes towards well-being and health or Personal Social Health and Economic Education (PSHE; Dewhirst et al., 2014). The Health Day intervention aimed to better the public health proficiency of pre-service teachers, which was one unit of the health and well-being education curriculum training courses for post-graduate teachers (Dewhirst et al., 2014). Quantitative and qualitative data were captured by utilizing a structured evaluation form (Dewhirst et al., 2014). Over 3 years the Health Day has assisted to equip over 1000 pre-service teachers in the primary and secondary phase (Dewhirst et al., 2014). They were equipped with knowledge, apprehension, confidence, and skills which have assisted teachers in their PSHE education by promoting positive attitudes towards their task to encourage sexual health (Dewhirst et al., 2014).

The qualitative findings indicated that Southampton pre-service teachers realized the intricacy of school health education and the importance of the education, health and voluntary sectors (Dewhirst et al., 2014). Furthermore, it is essential to the development and administration of this curriculum to have multi-agency and inter-sectoral networks

(Dewhirst et al., 2014). The increase in collaboration shows the evolving landscape of education and public health policy and has aided positive outcomes for pre-service teachers as future health promoters (Dewhirst et al., 2014). This model is one strategy that aims to minimize health inequalities and to ultimately better the well-being and health education for pupils and pre-service teachers (Dewhirst et al., 2014).

Another study, conducted in Australia, found similar results in educating sex education teachers. The findings of Johnson, Sendall and McCuaig's (2014) research reiterated the importance of proper teacher training to be able to effectively deliver sex education. Many teachers in primary schools avoid teaching sexual education even though appropriate opportunities are provided by the primary schools for children to begin comprehensive relationship and sexual education (RSE; Johnson et al., 2014). As schools suffer from the lack of teacher competence and confidence they have oftentimes depended on external agencies, health care professionals, and/or once-off presentations that are solely issue-related instead of meaningful, systematic and cohesive health education (Johnson et al., 2014). This study explored a 10 lesson RSE pilot intervention and an assessment task that was implemented in South-East Queensland, Australia in two primary schools (Johnson et al., 2014). The research examined the beliefs of teachers in primary schools as they interacted with RSE content delivery and curriculum resources as captures by mainly qualitative data (Johnson et al., 2014). The results indicated that if teachers were provided with high-quality curriculum resources for RSE, which is founded on the practices and principles of contemporary education, it will enable them to deliver

RSE more confidently and decrease potential barriers, including objections by parents and fear of the mismanaging of sensitive content (Johnson et al., 2014).

In Iran, teachers were found to be positive towards the teaching of sex education, but only from high school. In North Ireland and England, debates on what should be taught to students are also a current issue, with deep-rooted religiousness (Wilkinson, 2017). Sex education is not only a debated subject in the US, but also in Iran, and the following research revealed different and opposing ideas from the teachers. Khadijeh, Khadijah, Movahed Zahra and Hamideh (2015) posited that sex education assists adolescents in discovering their sexual identity and can potentially guard them against STDs, unwanted pregnancies, and sexual abuse. The researchers aimed to ascertain the attitude of teachers towards the sexual education of adolescents (Khadijeh et al., 2015). This was study a cross-sectional study conducted in Yarz, Southeast Iran, on high and secondary school teachers (Khadijeh et al., 2015). The researchers utilized cluster sampling to randomly select the participating teachers (Khadijeh et al., 2015). Self-reported questionnaires were used to collect data assessing the views of teachers on sexual education (Khadijeh et al., 2015).

Khadijeh et al. (2015) discovered that the largest extent of sex education content which teachers most frequently focused on was associated with the following: 91.7% was dedicated to ablution, menstruation, maturity, and hygiene, and 88.1 % was dedicated to moralistic ideals pertaining to premarital abstinence (Khadijeh et al., 2015). More than 70% of the teachers agreed that sex education was a fundamental right of adolescents, which is the greatest approved concept of sex education by teachers (Khadijeh et al.,

2015). These teachers also believe that marriage was made easier by sex education (Khadijeh et al., 2015). Only 47.5% of teachers affirmed that sex education must begin in high school, taught by the health education teacher of the school, and 71.6% believed that sex education should be accomplished through educational pamphlets (Khadijeh et al., 2015). The attitudes pertaining to sex education and the type of the school revealed significant differences as noted by the researchers (Khadijeh et al., 2015). The teachers accentuated the importance of sexual education as a fundamental right of adolescents and issues related to hygiene, ablution, menstruation, maturity, and moralistic ideals pertaining to premarital abstinence should be the bulk of sex education in schools (Khadijeh et al., 2015). Educational and health system authorities must integrate sex education especially in the educational programs of high schools with the assistance of appropriate sex educational pamphlets and health education teachers (Khadijeh et al., 2015).

Single sex education has previously indicated some benefits for learners, however, SS schooling may not have a such significant benefits, or an effect on sex education. Advocates of single sex (SS) education affirm that the separation of girls and boys, by schools or classrooms, will increase the academic interest and achievement of students. Pahlke, Hyde, and Allison (2014) used meta-analysis to further examine and compare studies on the effects of coeducational (CE) and SS education on students. The meta-analysis from 184 studies was represented through the testing of multiple outcomes for 1.6 million Grade K-12 students from 21 nations. The testing included the following for example: gender stereotyping, mathematics attitudes, mathematical performance, self-

concept, science performance, and educational aspirations. The researchers divided the studies into two categories to attend to concerns pertaining to the research design's quality. The categories included controlled studies (selection effects controls or random assignment) and uncontrolled (no random assignment, no selection effects controls). Uncontrolled studies revealed some discreet advantages for SS schooling, for boys and girls, pertaining only to outcomes in mathematic performance, but not in science performance. Yet, controlled studies revealed only inconsequential differences between CE and SS students, science performance (0.04 for boys, 0.06 for girls) and mathematics performance (0.06 for boys, 0.10 for girls), and revealed small differences in some cases in favor of CE schooling (educational aspirations for girls, 0.26). Similar results were revealed by separate studies done in the US for example mathematics revealed 0.14 for boys and 0.14 for girls. The perspective that CE schooling provides less benefits that SS schooling is not supported by the results from studies of the highest quality.

Teaching sex education is an all-encompassing task, and it may be needed to include other personnel or influential parties to better the outcomes of students regarding sex and sexual activity. Plastino, Quinlan, Todd and Tevendale (2017) posited that educating and engaging community members requires time and investment, yet once partnerships are in place, there are ongoing opportunities to reach young people. The research indicated the influence of peers, parents, and teachers on the sex education, and the success of sex education on youth, which also showed the appropriate choice of Bronfenbrenner’s ecological systems theory for this research study. Including parents in teaching sex education may have a positive influence on the long-term outcomes of

students (Alldred et al., 2016; Vivancos et al., 2013). Furthermore, better training for teachers on the technical aspects of sex education may have a positive impact on student learning (Borawski et al., 2015). The research indicated that combined approaches may be the most successful for teaching sex education.

## Alternative Approaches to Teaching Sex Education

Sex and relationship education is considered to be fundamental to the improvement of youths' sexual health (Pound et al., 2017). Since there is still much debate over the content of sex education, as well as the effectiveness of the current curricula, alternative approaches have been tried to test its impact. Naezer, Rommes and Jansen (2017) posited that policies should aspire to include young people's ideas on sex education priorities and themes, to provide a variety of perspectives, to use various strategies for teaching (online, learning by doing), in order to empower young people. Suleiman and Brindis (2014) also added that even though school-based sex education and policy solutions were significant to improve the sexual health outcomes of adolescents, new attempts were needed to enhance the overall impact. The hormonal, cognitive, emotional, as well as physical changes accompanying puberty in the teenage years have a significant impact on the sexual risk taking of adolescents (Suleiman & Brindis, 2014). The researchers suggested utilizing emerging evidence in neuroscience that suggests some innovations that might inform modern educational directions to better adolescent sexual health (Suleiman & Brindis, 2014). Ragonese, Bowman and Tolman (2017) also stated that social networking revolutions may create opportunities for students to gain knowledge and form ideas of sexuality that challenges social normative gender identities,

and O'Malley et al. (2017) found possible success for sex education through a sex education text line for youth.

As sex education is such an important issue, alternative approaches and intervention have been applied to test its effectiveness. The findings of this research showed one alternative approach to successful SRE, yet this approach is only truly helpful if it has a long term effect on the students. Arnab et al. (2013) stated that didactic approaches towards sex and relationship education, or SRE, have indicated limited outcomes in comparison with alternative approaches that stimulate peer debate and discussion. Developing effective interventions that stimulate peer involvement is a difficult task, and a solution is needed that is pedagogically sound and engaging for students (Arnab et al., 2013). This study examined the effectiveness of digital game, Positive Relationships: Eliminating Coercion and Pressure in Adolescent Relationships, to assist in SRE (Arnab et al., 2013). The game was developed by UK researchers as well as the Serious Games Institute (SGI; Arnab et al., 2013). The developers kept in mind the psychological targets for players and utilized the Four-Dimensional Framework of Learning (4DF; Arnab et al., 2013). This framework emphasizes learner profiling, the context of deployment, as well as the pedagogical perspective (Arnab et al., 2013). Initial tests regarding efficacy indicated positive results for the game solution through a controlled trial in 505 schools according to self-reported psycho-social preparedness to avoid coercion (Arnab et al., 2013). The analysis of the observational data suggested that using this interactive game-approach in conjunction with traditional classroom practices encouraged the students and teachers to take part in discussions before and after game

play (Arnab et al., 2013). In combination, the findings indicated actual benefits for this type of SRE solution (Arnab et al., 2013).

In another study, evaluating a digital form of sex education, the researchers also found positive results. Raghupathy, Klein and Card (2013) conducted an initial investigation of a classroom-based, digital resource known as the Abstinence and Contraception Education Storehouse (ACES). This approach was developed in order to work in conjunction with the current sex education curricula in use, including interactive materials like multimedia polls, video clips, quizzes, as well as audiovisual demonstrations (Raghupathy et al., 2013). The findings indicated that sexually initiated as well as non–sexually initiated young people who took part in the ACES curriculum showed greater intention to abstain from sex throughout the follow-up period of the study when compared to the control group (Raghupathy et al., 2013). These studies indicated that a digital component to sex education may be beneficial to students.

Alternatively, researchers have also explored the success of more liberal approaches to sex education, focusing on pleasure. Buck and Parrotta (2014) described an exercise, used to challenge sexist and heteronormative beliefs of sexuality, which allows students to imagine alternative belief structures. Active learning reduces student anxiety regarding threatening or challenging material (Buck & Parrotta, 2014). Students were encouraged to read Waskul, Vannini, and Weisen's ‘Women and Their Clitoris’ and Jessica Fields' ‘Risky Lessons’, followed by them designing a controversial sexual education curriculum (Buck & Parrotta, 2014). This exercise gave students the freedom to critique the current sexual education curriculum, to contemplate their own sexual

education beliefs, to design their own innovative ideas to teach sexual education, and to become more comfortable to discuss sexuality and sex with other students (Buck & Parrotta, 2014). The findings showed that all except one student found this alternative activity interesting or enjoyable, and more than 50% of the students indicated a change in their perspectives about sex education and sex after the activity (Buck & Parrotta, 2014).

Although a great variety of studies have not yet been conducted on alternative approaches, the available research indicated that a digital component to sex education may have a very positive impact on student learning (Arnab et al., 2013; Raghupathy et al., 2013). Furthermore, including students in active learning, and giving them more control over the outcome of a sex education exercise may be very helpful (Buck & Parrotta, 2014), and could even guide the sex education topics discussed by the teacher. Further research on alternative approaches is needed to determine its long-term effect on students' sex education knowledge and how they apply that knowledge.

## Summary and Conclusions

According to the literature, great improvements have been made in the sex education field since the 1980s, the abstinence-only-approach to sex education may currently not be the best option for sex education any longer. The current literature on sex education material indicated a continued lack of consensus regarding the curriculum to follow, the topics to discuss, the involvement of nurses or teachers, as well as the level of training needed for teachers (Arons et al., 2016; Iyer & Aggleton, 2015; Strasburger & Brown, 2014). Several researchers stated the need for more specific standards when teaching sex education (Barr et al., 2014; Hall et al., 2016; Mendes et al., 2016).

Researchers also described that policy is preventing broad, evidence-based sex education curricula (Hall et al., 2016), and that proper sex education could reduce unwanted pregnancies and the transmission of STIs and STDs (Breuner et al., 2016). The literature reveals many students are also sexually active, and that an abstinence only approach leaves them without proper knowledge on sex and sexual activity (Pound et al., 2016). Alternatively, some studies indicated the overwhelming support of parents to include all topics in sex education, above and beyond abstinence only (Barr et al., 2014; Kantor & Levitz, 2017; Millner et al., 2015).

Teaching sex education is an all-encompassing task, and it may be needed to include other personnel or influential parties, or use combined approaches, to better the outcomes of students regarding sex and sexual activity. The perspectives of teachers in sex education may influence what is taught in class, and inherently the impact on the long term sexual health outcomes of students. The literature indicated significant challenges regarding LGBTQ subjects (Lynch, 2017; McNeill, 2013), as well as heteronormativity, including gendered and racial norms (DePalma & Francis, 2014; Francis & DePalma, 2014).

Although a great variety of studies have not yet been conducted on alternative approaches, the available research indicated that a digital component to sex education may have a very positive impact on student learning (Arnab et al., 2013; Raghupathy et al., 2013). Plastino, Quinlan, Todd and Tevendale (2017) posited that educating and engaging community members requires time and investment, yet once partnerships are in place, there are ongoing opportunities to reach young people. The research indicated the

influence of peers, parents, and teachers on the sex education, and the success of sex education on youth, which also showed the appropriate choice of Bronfenbrenner's ecological systems theory for this research study. Including parents in teaching sex education may have a positive influence on the long-term outcomes of students (Alldred et al., 2016; Vivancos et al., 2013). Furthermore, better training for teachers on the technical aspects of sex education may have a positive impact on student learning (Borawski et al., 2015; Carrion & Jensen, 2014).

According to the literature, there is a need for further and more comprehensive research on sex education material and teacher's perceptions thereof to determine the inclusion of topics and possible options to improve the teaching of sex education, and further research on alternative approaches is needed to determine its long-term effect on students' sex education knowledge and how they apply that knowledge. Furthermore, the influence of teacher perspective, combined with a lack of guidelines and training surrounding sex education may have a significant negative influence on the knowledge of students, and further research is needed to determine how teachers perceive the influence of their beliefs on their teaching as well as how they feel evidence-based curricula would affect teaching practice. The following Chapter will outline the methodology for this study.

# Chapter 3: Research Method

The purpose of this qualitative study was to identify how personal beliefs associated with sex education influence teaching practice of high school educators (Grades 9-12). Therefore, I explored (a) whether educators believed their sex education instruction is affected by personal beliefs and (b) the degree to which educators felt their beliefs affect individual teaching practice. The phenomenon explored was high school educators and sex education curricula. Based on the purpose of this study, I used a qualitative research methodology and implemented a phenomenological design.

In this chapter, I present the details of the chosen methodology and research design as well as the rationale for choosing qualitative phenomenological design. Chapter 3 also includes details of the data gathering procedures implemented to completely address the research question of the study. The major sections included in Chapter 3 are (a) Research Design and Rationale, (b) Role of the Researcher, (c) Methodology, (d) Data Analysis Plan, (e) Issues of Trustworthiness, and (f) Ethical Procedures. A summary is presented to end the chapter.

## Research Design and Rationale

The foundational research question for the study was as follows:

RQ: In what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice?

## Role of the Researcher

I served as a main data collection instrument of the study. I performed the procedures for recruitment, data collection, and data analysis to conduct this study.

During the recruitment phase, I was responsible for obtaining site authorization from the different schools where teachers were recruited. I also performed teacher recruitment from invitation, informed consent, and interview scheduling. Because I recruited and selected participants of the study, I aimed to minimize any conflicts of interest. Therefore, I made sure that no one among the chosen samples was a member of my family, a colleague, a friend, a relative, or a business associate. By observing this rule, I prevented influences of familiarity with the participants to the data collection outcomes and the overall findings of the study.

During the data collection phase, I served as the interviewer. I used a field-tested interview guide to help in ensuring that questions were aligned with the topic of the study and to avoid asking leading questions. For the data analysis phase, I was responsible for preparing the data in the NVivo software. I also performed the analysis of the interview data through thematic analysis.

Because of the familiarity that I have gained about the topic of this study, I may have developed personal preferences and perceptions in relation to the phenomenon of belief-based sex education. These perceptions may have influenced biases when collecting and analyzing data. Personal biases tend to influence the findings of a study, thus decreasing the trustworthiness of the findings (Lincoln & Guba, 1985). Therefore, I minimized the possible effects of personal biases to the findings of the study by acknowledging beliefs, experiences, and perceptions in relation to the topic being studied. In this manner, I became more aware and cautious when making decisions,

interpretations, and conclusions that may be related to my personal views and perceptions.

**Research Methodology**

Based on the purpose of this study, I used a qualitative data gathering methodology. This methodology is useful for researchers who have to collect and analyze nonnumerical data to explore deeper into a phenomenon (Katz, 2015; Lewis, 2015). Researchers employ qualitative research when aiming to collect rich and thick data for deeper understanding of the phenomenon (Silverman, 2016). For this study, the phenomenon of interest was the beliefs of educators to teaching sex education. Moreover, to address the research question, I collected and analyzed rich and thick data; therefore, qualitative methodology was appropriate. Qualitative methodology may also allow for collection of in-depth data through interviews with individuals having the expertise or beliefs that are relevant to the topic of interest (Blackstone, 2016; Taylor et al., 2015).

In most cases, qualitative studies are used when collecting data on participants' beliefs perceptions or behavior about a specific phenomenon (Blackstone, 2016; Katz, 2015; Silverman, 2016). Based on the purpose and research question of this study, teachers' beliefs were explored to understand the phenomenon and fulfill the objectives for this investigation. Therefore, a qualitative methodology was appropriate based on the need for deep exploration of the phenomenon using in-depth data about the beliefs of teachers teaching sex education.

Aside from qualitative methodology, I also had the option of using quantitative or mixed methods. However, both methodologies were inappropriate for this study. A

quantitative methodology is an approach that is focused on the systematic data collection of numeric and measurable data to establish relationships between variables being explored (Bryman, 2016.. A quantitative methodology was inappropriate for this study because (a) there was no need to collect quantitative data for statistical analysis and (b) there was no need to establish relationships between variables to answer the research question of the study. Therefore, qualitative methodology was preferred over quantitative methodology. A mixed methodology design, which is the combined use of quantitative and qualitative measures and techniques to conduct a study and address research questions (Bryman, 2017; Mertens, 2014) was also inappropriate for this study. Qualitative techniques and methods were an appropriate way to gather data for this study and addressed the foundational research question.

**Research Design**

I chose a phenomenological approach as the research design for this study. When using phenomenological research, the focus is on collecting and exhausting data on participants' beliefs in order to understand a specific phenomenon of interest (Giorgi, 2017; Moustakas, 1994). The use of this design or tradition is common for research with a purpose involving the exploration of participants' beliefs in alignment with the requirements for addressing the research questions and central problem of the study (Giorgi, 2017; Moustakas, 1994). Moreover, when using phenomenology, the researcher can investigate the beliefs of individuals in a specific group to collect evidence that enables a structured analysis and meaningful reflection for insights from the data gathered (Giorgi, 2017).

Based on this description of phenomenology to address the research question, which was focused on the beliefs of teachers in terms of teaching sex education, this research design was appropriate for this study. Only by collecting data on the beliefs of educators teaching sex education can I completely fulfill the purpose of the study and make sense of the phenomenon being explored. Individual in-depth interviews with teachers who were teaching sex education to students in school were conducted. The geographical location for the schools was a chosen school district in the United States.

## Methodology

### *Target Population*

The target population for this study was 10 high school teachers in Grades 9 to 12 teaching sex education in Minnesota. Based on the purpose of the study, I explored teachers' personal beliefs associated with, and potentially influencing, sex education. This population was chosen because information about the beliefs and expertise of these individuals was needed to completely and holistically address the research question of the study. Therefore, the population of interest, which was sex education teachers, has been justified.

### *Sampling Strategy*

I recruited participants using purposive sampling. This sampling technique is commonly used when recruiting participants for phenomenological studies (Gentles et al., 2015; Padilla-Diaz, 2015; Sun et al., 2016). Purposive sampling is a technique wherein the researcher selects participants with a specific set of characteristics that are aligned with the requirements of the purpose of the study (Gentles et al., 2015; Palinkas et al.,

2015). Purposive sampling commonly leads to a set of participants who are willing to provide complete and detailed answers to data collection questions relevant to the study because of the familiarity of these individuals to the topic of interest (Barratt et al., 2015; Gentles et al., 2015). Therefore, using purposive sampling as the recruitment technique aligned with the purpose and requirements of conducting this study.

### *Sample and Sampling Criteria*

The sample participants were selected according to a set of eligibility criteria. The criteria were composed of a set of characteristics that were appropriate for satisfying the problem, purpose, and research questions of the study. The eligibility criteria for the teacher participants of this study were that any individual interviewed (a) was a sex education teacher for at least the past 2 school years, (b) taught high school levels, and (c) was aware of experience-based teaching. I determined whether the participant had satisfied the set criteria by asking a series of screening questions during the recruitment phase.

### *Sample Size*

The sample size for qualitative phenomenology is usually dependent on the point of data saturation (Fusch & Ness, 2015). For a study to reach data saturation, the researcher must determine the instant wherein the analysis of additional data does not lead to new data, new themes, or new codes (Fusch & Ness, 2015; Tran et al., 2016). For this study, I determined when data saturation was reached once no new data, new themes, or new codes were developed for three consecutive additions of data sets. In most cases, six to 25 participants are enough to reach data saturation (Fusch & Ness, 2015). For this

phenomenological study, I recruited 10 teachers of sex education in 9 to 12 in the Minneapolis School District.

**Instrumentation**

The technique for data collection was semi-structured interviews. Using interviews enables researchers to collect in-depth data about a phenomenon (Katz, 2015; Lewis, 2015). With the use of a semistructured interview, I maintained the overall structure of the data collection process to minimize my subjectivity and bias while also allowing deeper data to be collected through follow-up questions (Kallio et al., 2016). For the semistructured interviews, the main instrument was an interview guide. By having an interview guide during data collection, I ensured that the questions asked during the data collection phase of this study were relevant to the topic of the study.

To develop the questions in the interview guide, I used existing literature about experience-based learning and the concepts involved in sex education. The questions in the interview had a direct connection to the objective of answering the research questions for this study. Because the interview questions were researcher-developed, a field test with experts was performed. During the field test, I asked five high school sex education teachers to review the appropriateness and understandability of the questions in the interview guide to ensure that the questions are appropriate to address the research question and sub-questions of the study without directly using the research questions as part of the interview. The field test participants were different from the actual interview participants. I conducted the interview using the initial interview guide to ask questions from the field test participants. The answers from the field test were not recorded. After

the field test interview, participants provided feedback about the appropriateness of wording of the questions based on the language that is common for the participants of the interview (e.g., leaders of charitable institutions). The ease of understanding the questions was assessed during the field test. Recommendations for changes to the guide questions were considered based on the comments of the field test participants.

## Procedures for Recruitment Participation and Data Collection

### *Procedure for Recruitment*

I began the methodology for this study by obtaining permission from the University Institutional Review Board (IRB). Only after obtaining permission from the IRB did I begin any attempt to communicate with possible data collection sites. These data collection sites were 9-12 schools in the Minneapolis, Minnesota School District.

I began recruiting participants by contacting the heads of the 9-12 schools to ask permission to conduct the study with their teachers. After obtaining site permissions from the different school heads, I began contacting the schools to personally invite sex education teachers to be a part of the study. I emailed invitation letters to the different teachers. In the invitation letter, the details of the purpose of the study, possible contributions to the field of education and society as a whole, scope of participation, and eligibility criteria. Those who expressed intent to participate were asked a series of screening questions to ensure their eligibility. Teachers who satisfied all the eligibility criteria received a copy of the informed consent through email. The informed consent form contained information about the rights and scope of participation in the study. Teachers who agreed to the contents of the consent form signed the form and gave the

signed copy to me. After receiving the signed copy through email, I scheduled the participant for an interview.

### *Procedure for Data Collection*

After scheduling the interview, I began the series of data collection. The locations of interview are usually based on the convenience of the participants to improve their eagerness in participation (Silverman, 2016). Therefore, I conducted interviews virtually. Each interview lasted for approximately 30 minutes. I audio-recorded each interview.

During each interview, I used the interview guide in asking questions. The interview had three parts: introduction, interview proper, and summary or conclusion. The following steps were followed for each of the three parts.

1. Introduction
    a. The researcher will greet the participants
    b. The researcher will review the topic of the study by providing the background and purpose of the study.
    c. The researcher will discuss the purpose of the interview.
    d. The researcher will discuss the flow of the interview.
2. Interview
    a. The researcher will ask questions based on the items in the interview guide.
    b. The researcher will ask follow-up questions based on the initial answers of the participants.
3. Conclusion

a. The researcher will allow the participant to ask questions about the interview.
b. The researcher will answer any question from the participant.
c. The researcher will discuss the member checking process wherein participants will be allowed to review their own transcripts before analysis is performed.
d. The researcher will thank the participant so spending time to be part of the study.

After each interview, I personally transcribed the interview session. After transcription, member checking was performed. The researcher personally handed over a copy of the transcripts to the respective participants (Birt, Scott, Cavers, Campbell, & Walter, 2016). The participants were given 7 days to review the transcript for corrections. Any correction was discussed with me. Changes to the data or information in the transcripts was made if needed.

**Data Analysis Plan**

Thematic analysis was used to analyze the data for this study (Braun, Clarke, & Terry, 2014). The steps followed were: (a) familiarization, (b) coding, (c) initial theme development, (d) theme revision, (e) theme finalization, and (f) report generation (Braun et al., 2014).

1. Familiarization:
    a. Read the interview transcripts for at least two times.
    b. Highlight descriptive words related to the research question

2. Coding:
    a. Develop coding scheme by coding the first three interviews' data.
    b. Provide straightforward codes to describe the descriptive words highlighted in step one. The codes will be terms that describe how related or similar terms address the research questions.
    c. Apply the code from the coding scheme to the rest of descriptive words highlighted in the all interview data.
3. Initial theme development
    a. Group similar codes together to form themes.
    b. Label each group to form the initial themes.
4. Theme revision
    a. If applicable, combine small themes to form bigger but more rational themes.
    b. If applicable, decompose large themes for a more concise grouping of codes.
5. Theme finalization
    a. Identify major themes, which are present in 50% or more of the transcripts.
    b. Identify minor themes, which are present in 40% or less of the interview transcripts.
6. Report generation:
    a. Summarize the demographics of the participants

b. Write the discussion of the findings and present the discussion in chapter 4.

## Issues of Trustworthiness

### Credibility

Credibility is similar to internal validity for quantitative studies (Lincoln & Guba, 1985). To improve credibility, the researcher will conduct a member check of the data from the participants (Birt et al., 2016). By member checking the data from the participant, the researcher can verify the correctness and accuracy of the data from the interviews (Birt et al., 2016). Aside from member checking, performing field tests can also improve credibility of a study (Miles, Huberman, & Saldana, 2014). Through a field test, the researcher can verify if the question included in the interview guide are appropriate for the intended sample who will answer the questions; thus, increasing validity of the findings (Miles et al., 2014).

### Transferability

Transferability is the extent to which the findings will be applicable to another setting or context (Lincoln & Guba, 1985). Transferability will be improved for this study by writing thick and rich description of the data. With a detailed discussion of the data and findings, the researcher can further improve the meaning of the results (Lincoln & Guba, 1985); thus, improving transferability further. In this manner, future researcher can easily assess if the findings in this data is applicable to other settings or contexts.

**Dependability**

Dependability is similar to reliability (Lincoln & Guba, 1985). To improve the dependability, I will conduct an audit trail. I will provide copies of procedural documents used for this study to enable readers to review the flow and process. To enhance a study's dependability, every step and procedure that occurs will be documented in the methodology chapter (Lincoln & Guba, 1985). The audit trail will be helpful in allowing readers to assess the reliability of the measures taken to complete the study.

**Confirmability**

Confirmability is similar to objectivity (Lincoln & Guba, 1985). I will improve objectivity by minimizing subjectivity and bias (Kallio et al., 2016; Lincoln & Guba, 1985). Through a field test of the data collection instrument, I minimized biases that may have affected the development of the questions for the interview. Leading questions were reduced. I minimized subjectivity and improve confirmability of the study by listing personal beliefs and assumptions related to the study and the findings.

**Ethical Procedures**

Addressing ethical issues is important when including human participants in the data collection of a study (Denzin & Giardina, 2016; Haahr, Norlyk, & Hall, 2014). First, I ensured that IRB approval was obtained before beginning any recruitment or data collection process. Second, all participants received and signd an informed consent form before being considered as an official participant of this study. In the consent form, the following information was included: (a) purpose and benefits of the study, (b) data collection steps included for participation, (c) duration of participation, (d) minimal

participant risks involved, (e) voluntary nature of participation, (f) data storage procedure, and (f) confidentiality procedures. Only those who have read and signed the consent form were considered as participants of the study. The participants were given 48 hours to return the informed consent form. Third, I ensured that participant identity is confidential by using pseudonyms instead of names of participants. The pseudonyms were used in the data sheets and reports of findings. Fourth, all materials used in the study is stored properly. All written or printed materials is stored in a locked cabinet in my personal office. All electronic files are stored in a password-protected thumb drive. The thumb drive is inside a locked cabinet. I will store data for five years after completing the research, after which, I will delete all stored information by burning, shredding, and permanent deletion. Fifth, no participants were forced to agree with the invitation to be a part of the study. Those who will declined the invitation were not given any consequence for their decision. Similarly, those who decided to participate did not receive incentives. Finally, any participant who joined the study but decided to terminate involvement in the study prior to its completion were not penalized, either. This is stated in the informed consent form and the Walden IRB number is 07-01-20-0597528. All participants are volunteers.

## Summary

Chapter 3 presented the data gathering methodology and data analysis strategy for this study. Qualitative phenomenological study was the chosen and appropriate research design to be used in alignment with the purpose and research questions. Purposive sampling was used to recruit participants 10 teachers of sex education in grades 9 to12 in

the Minneapolis School District. These teachers participated in semi-structured interviews. The data was analyzed using thematic analysis. To ensure trustworthiness of the study, member checking and instrument field test was performed. Moreover, audit trails and details description of procedures and findings was implemented to improve trustworthiness as well. In chapter 4, the results from implementing the recruitment, data collection, and data collection procedures are presented.

# Chapter 4: Results

The purpose of this qualitative phenomenological study was to identify how the personal beliefs associated with sex education, as understood by 9 to 12 educators, influence teaching practice. I explored and documented (a) whether educators believed their sex education instruction is affected by personal beliefs and (b) to what degree educators felt that their beliefs affect individual teaching practice. The research question was as follows:

Research Question: In what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice?

This chapter includes a description of the relevant demographic characteristics of the study participants. Next, I proceed with descriptions of the implementation of the data collection and analysis procedures, followed by a discussion of the evidence of the trustworthiness of the results. I then include a presentation of the study results, which are organized under the themes used to answer the research question. A summary concludes this chapter.

## Demographics

The purposive sample included 10 high school teachers who provide sex education to students in Grades 9 to 12 in Minnesota. Table 1 indicates the relevant demographic characteristics of the study participants.

**Table 1**

*Participant Demographics*

| Partici-pant | Provides SE to grades | Type of SE taught | Is SE type mandated? | Years of teaching experience | Developer of SE curriculum |
|---|---|---|---|---|---|
| P1 | 9-10 | Comprehensive | No | 11 | District-level coordinator |
| P2 | 9-10 | Comprehensive | No | 6 | District-level coordinator |
| P3 | 9-12 | Comprehensive | Yes | 10 | District-level team |
| P4 | 10-12 | Comprehensive | Unsure | 11 | District-level coordinator |
| P5 | 10-11 | Comprehensive | Unsure | 11 | District-level team |
| P6 | 9, 11, 12 | Comprehensive | Yes | 10 | District-level team |
| P7 | 9-12 | Comprehensive | Unsure | 6 | District-level coordinator |
| P8 | 9, 10, 12 | Comprehensive | Unsure | 12 | District-level coordinator |
| P9 | 9-12 | Comprehensive | Yes | 15 | District administration |
| P10 | 9-12 | Comprehensive | No | 10 | District-level team |

*Note.* SE = sex education.

## Data Collection

One semistructured, one-to-one interview was conducted with each participant. The interviews were audio recorded. Each interview took approximately 30 minutes to complete. There were no deviations from the planned procedure or unexpected circumstances that might have influenced the data.

## Data Analysis

I transcribed the audio recordings of the interviews verbatim and then provided each participant a copy of their interview for verification. All transcripts were verified. The verified transcripts were uploaded into NVivo 12 software for thematic analysis, which I organized using the 6-step procedure described by Braun et al. (2014). In the first step of the analysis, I read and reread the data in full to gain familiarity with them, and I highlighted words and phrases that appeared relevant to the research question.

The second step of the analysis involved coding the data. I assigned transcript excerpts that expressed meanings relevant to answering the research question to codes. The transcript excerpts assigned to the codes indicated how the descriptive words addressed the research question. When different transcript excerpts expressed similar meanings relevant to answering the research question, they were assigned to the same code. A total of 86 transcript excerpts relevant to answering the research question were assigned to 21 codes. Table 2 indicates the codes formed during this step.

**Table 2**

*Data Analysis Codes*

| Code (alphabetical) | *n* of participants contributing (*N* = 10) | *n* of transcript excerpts included |
|---|---|---|
| Abstinence-only SE is ineffective in promoting student health and safety | 3 | 3 |
| Awareness of issues facing students | 3 | 4 |
| Biases reduce validity of teaching | 3 | 3 |
| Community partners invited to reinforce message | 2 | 2 |
| Current curriculum not as comprehensive as needed | 5 | 6 |
| Differentiating presentation of information from judgement or coercion | 2 | 2 |
| Evidence-based curriculum is the most effective in reducing unwanted pregnancies and STIs | 9 | 9 |
| Exclusionary biases harm students | 2 | 2 |
| Impact on student relationship-trust | 3 | 3 |
| Importance of being mindful of impact on students | 4 | 5 |
| Importance of recommended topics | 2 | 3 |
| Information should be scientifically focused | 5 | 6 |
| Monitoring prominent topics in societal discourse | 1 | 2 |
| Recommended curriculum is implemented | 10 | 10 |
| Soliciting student input | 1 | 1 |
| Students need broad relational and sexual health awareness | 4 | 5 |
| Teacher discretion is enabled in part by lack of oversight | 4 | 4 |
| Teacher-centered rather than student-centered instruction | 5 | 5 |
| Teachers have complete discretion to modify recommended curriculum | 6 | 6 |
| Timely issues and student requests | 3 | 3 |
| Topics believed to be less important may be cut for time | 3 | 3 |

*Note.* SE = sex education.

In the third step of the analysis, I identified themes by grouping similar codes. I identified codes as similar when the data assigned to them expressed similar meanings relevant to answering the research question. The 21 codes were clustered into five themes during this step. I reviewed and refined the themes in the fourth step of the analysis to confirm that they accurately represented patterns in participants' responses. In Step 5, I named and defined the themes to clarify their significance as answers to the research question. Table 3 indicates how the codes were grouped to form the finalized themes.

**Table 3**

*Grouping of Codes to Identify Themes*

| Theme<br>Code grouped to form theme (alphabetical) | *n* of participants contributing (*N* = 10) | *n* of transcript excerpts included |
|---|---|---|
| 1. Teachers have broad discretion to modify recommended sex education curriculum according to their beliefs | 10 | 13 |
| Teacher discretion is enabled in part by lack of oversight | | |
| Teachers have complete discretion to modify recommended curriculum | | |
| Topics believed to be less important may be cut for time | | |
| 2. Congruent teacher beliefs promote fidelity to the comprehensive sex education model | 10 | 25 |
| Abstinence-only SE is ineffective in promoting student health and safety | | |
| Evidence-based curriculum is the most effective in reducing unwanted pregnancies and STIs | | |
| Importance of recommended topics | | |
| Recommended curriculum is implemented | | |
| 3. Teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum | 7 | 17 |
| Community partners invited to reinforce message | | |
| Current curriculum not as comprehensive as needed | | |
| Monitoring prominent topics in societal discourse | | |
| Students need broad relational and sexual health awareness | | |
| 4 Teachers' Belief that Sex Education Should Meet Students' Needs Makes Their Practices Responsive to Student Feedback | 6 | 8 |
| Awareness of issues facing students | | |
| Soliciting student input | | |
| Timely issues and student requests | | |
| | 10 | 26 |

| |
|---|
| 5. Teachers strive to minimize the influence of their personal biases |
| Biases reduce validity of teaching |
| Differentiating presentation of information from judgement or coercion |
| Exclusionary biases harm students |
| Impact on teacher-student relationship and trust |
| Importance of being mindful of impact on students |
| Information should be scientifically focused |
| Teacher-centered rather than student-centered instruction |

## Evidence of Trustworthiness

### Credibility

Credibility is the accuracy of qualitative data in describing the reality it is intended to represent (Lincoln & Guba, 1985). Threats to credibility include procedures for recording and preserving data that potentially introduce errors. To mitigate this threat and strengthen credibility, I audio recorded the interviews, transcribed the interviews verbatim, and then conducted member checking so participants could verify the accuracy of their transcripts (see Birt et al., 2016). Prior to collecting data, I field tested the interview protocol to ensure the questions were written appropriately to elicit relevant data (see Miles et al., 2014).

### Transferability

Transferability is the extent to which the findings are applicable to another setting or context (Lincoln & Guba, 1985). Transferability has been strengthened in this study by providing thick and rich descriptions of the data in the Results section of this chapter (see Lincoln & Guba, 1985). A description of the sample and the inclusion criteria for the study have also been provided to assist readers in assessing transferability (see Lincoln & Guba, 1985).

### Dependability

Dependability is the extent to which the data would be reproduced if the study were replicated in the same setting at a different time (Lincoln & Guba, 1985). To enhance this study's dependability, detailed descriptions of the procedures have been provided in Chapter 3 (see Lincoln & Guba, 1985). I also used the same interview

protocol in interviewing each participant to ensure consistency during data collection. I used NVivo 12 computer-assisted qualitative data analysis software to support the integrity of the analysis by minimizing the potential for undetected errors in maintaining the organization of the coding scheme I developed to result in the actual procedure differing from the replicable one described in this chapter.

### Confirmability

Confirmability is the degree to which findings represent participants' opinions and perceptions rather than researcher bias (Lincoln & Guba, 1985). I will improve objectivity by minimizing subjectivity and bias (Kallio et al., 2016; Lincoln & Guba, 1985). Through a field test of the data collection instrument, I minimized biases that may have affected the development of the questions for the interview. Leading questions were reduced. I also minimized subjectivity and improved confirmability of the study by listing personal beliefs and assumptions related to the study and the findings.

## Results

The research question was in what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice? Five themes emerged during data analysis to answer the research question. The themes were (a) teachers have broad discretion to modify recommended sex education curriculum according to their beliefs, (b) congruent teacher beliefs promote fidelity to comprehensive sex education, (c) teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum, (d) teachers' belief that sex education should meet students' needs makes their practices responsive to student feedback, and (e) teachers

strive to minimize the influence of their personal biases. The following sections are discussions of these themes.

**Theme 1: Teachers Have Broad Discretion to Modify Recommended Sex Education Curriculum According to Their Beliefs**

All 10 participants contributed responses in which Theme 1 theme was identified. This theme addressed the extent to which teachers' beliefs potentially influenced their sex education practices, rather than the types of changes teachers' beliefs caused them to implement. Participants reported that they had discretion to modify the recommended curriculum to any extent they considered appropriate, including by replacing it with a different curriculum altogether. The only requirement for sex education was that it be comprehensive and evidence-based, and implementation of the recommended curriculum ("Be Proud, Be Responsible") was neither overseen nor enforced. Teachers' beliefs could therefore influence their sex education practice to the extent of causing them to add topics not referenced in the recommendation or omit recommended topics altogether.

All participants reported that they had complete discretion in deciding what and how they taught sex education within the framework of comprehensive sex education instruction. P6 said of the supremacy of teacher discretion over the curriculum the district recommended, "[sex education practice is at] the teacher's discretion. We don't have to use the Be Proud, Be Responsible program, but we know that is what the district recommends. I could create my own curriculum if I wanted." P7 stated, "I guess I could do whatever I want, really." P8 also reported complete discretion and associated it with a lack of oversight:

> I can change the curriculum in any way I want. As the instructor, I have full discretion on what I want to present in my classroom. Now, we have topics we are supposed to cover, but if we decide to go a different route, who cares? No one really knows what's going on in my classroom unless I choose to discuss it with other teachers.

It is important to note in relation to the response from P8 just quoted that P8 did not agree that teachers should have this level of discretion. P8 added in a later part of the same response, "Administration assumes we are doing the right thing, and I think that most of us teachers are, but I know for a fact, there are some who are not." P4 confirmed P8's report in associating the large extent of teacher discretion in part with a lack of oversight, and also confirmed P6's description of teacher discretion as able to override the recommended curriculum. Like P8, P4 expressed misgivings about the breadth of teacher discretion: "We can add or remove material, it's totally our discretion. The sex education program, Be Proud, Be Responsible, is encouraged, but it's not like anyone is really watching. Which is scary, that we're not held to a stricter standard."

P5 reported that the range of teacher discretion extended to omitting topics according to teacher perceptions of their comparative importance: "I [use my discretion] all the time. It's my responsibility to make sure students get as much information as time allows. Sometimes I skip topics that don't seem as important as others . . . I've also added topics." P9 reported an experience similar to P5's, stating: "Yes, we [teachers] can add or omit material. I do it sometimes for various reasons . . . sometimes the program doesn't mention topics I think are important, or we just don't have time." Thus, like P5, P9 added

or omitted topics according to beliefs about their comparative importance. P10 also confirmed that teachers could add or omit topics according to personal beliefs about the topics' importance: "It's important to make sure your students are getting what they need, and if the curriculum doesn't cover something, I'll add it. I can choose not to cover something, too."

**Theme 2: Congruent Teacher Beliefs Promote Fidelity to the Comprehensive Sex Education Model**

All 10 participants contributed responses to this theme. As the discussion of Theme 1 indicated, participants reported that they had complete discretion to determine their sex education practices, and that they used this discretion to add or omit topics according to their beliefs about the topics' importance. In relation to the present theme, participants indicated that the agreement between comprehensive, evidence-based sex education and their personal beliefs caused them to limit their modifications to the recommended curriculum. When participants modified lessons, they did so in a manner consistent with what might be called the spirit of the recommended curriculum. Participants voluntarily limited their modifications to evidence-based instruction designed to enhance rather than undermine the recommended curriculum's focus on promoting healthy, informed decision-making.

All 10 participants reported that they believed comprehensive sex education was valid and effective. P4 reported belief-congruence with comprehensive sex education because: "Abstinence-only does not work, and we need to help our students, not shame them. Help them make healthy decisions. Awareness is the key." P3's belief in

comprehensive sex education was based on evidence that the model was more effective than abstinence-only education in reducing undesirable outcomes, and that sex education should be, "evidence based, with decision-making and refusal skills. Certainly not an abstinence-only curriculum. Definitely evidence-based. A curriculum that has evidence in reducing [STIs and pregnancies]. We're looking for things that are authentic to our students, realistic to them." P8 believed in the efficacy of comprehensive sex education because, "Comprehensive is the best, according to the evidence," and P5 reported a belief that comprehensive sex education was more effective than abstinence-only sex education because, "That's what the science says." P6 said of the societal contention between the respective advocates of abstinence-only and comprehensive sex education: "It's funny that there's still a debate about this. The science has answered this question a long time ago, but still there are people who believe abstinence-only programs will save our kids. It's a bunch of nonsense, actually."

Participants' belief that comprehensive sex education was valid and effective influenced them to refrain from using the full extent of their discretion to modify it. P7, who reported complete discretion to modify sex education curriculum but also a strong belief in the curriculum, voluntarily limited the use of discretion: "I make minor tweaks to the program but nothing significant." P9 reported that forbearance from using complete discretion was based on the belief that the recommended curriculum was appropriate: "No one ever told me I can't change the program. I could develop a significantly different lesson plan if I wanted to, but it doesn't make sense to." P1 reported doing research to refine the curriculum: "I can omit and I can add-on with my

discretion . . . Some of my curriculum, I've picked and chosen from various websites, various organizations, but really with HIV prevention." P1 reported refining the curriculum to enhance the recommended messages rather than to change them, out of a personal belief that those messages were valid and effective: "I really like that Be Proud, Be Responsible, and what that was about was preventing HIV, and other STDs. I feel that when you do so, you're also preventing pregnancies [by discouraging unprotected sex]."

**Theme 3: Teachers' Beliefs About Students' Informational Needs Guide Their Planning of Additions to the Recommended Curriculum**

Seven out of 10 participants reported that they preplanned additions to the recommended curriculum according to their beliefs about students' informational needs. No participants contradicted this theme. The participants who contributed to this theme reported that the recommended curriculum placed a strong emphasis on STI prevention. Participants who believed the recommended curriculum was valuable but not comprehensive enough.

Discussion of topics not included in the curriculum was needed to meet students' informational needs, participants believed. P9 directly associated the discretionary additions to the recommended curriculum in saying: "We can add or omit material. I do it sometimes for various reasons . . . sometimes the program doesn't mention topics I think are important." P2 provided a response consistent with P9's in saying that modifications were made to add topics that were perceived as important but were omitted from the recommended curriculum. P2 said of the recommended curriculum: "Be Proud, Be Responsible has six lessons with a heavy focus on HIV and AIDS. I put in other lessons

that make [sex education] more comprehensive." P4 also reported supplementing the recommended curriculum with topics believed to be important: "I have added or removed parts of the curriculum for different reasons. Sometimes, it's because the program is really focused on STD prevention but doesn't really discuss other aspects of sexual health." P10 emphasized that discretionary additions were not arbitrary, but rather guided by students' perceived informational needs: "It's important to make sure that your students are getting what they need, and if the curriculum does cover something, I'll add it." P1 cited the changing nature of scientific knowledge about health as a reason for continually updating the recommended curriculum to meet emerging informational needs:

> Some of my curriculum, I've kind of picked and chosen from various websites, various organizations . . . Health is always changing. Sex education and the way it's presented is always changing. So, I feel like part of what I share with Minneapolis health teachers is keeping up to date. That means changing things and what's good for our students.

In describing specific elements they added to the recommended curriculum, participants mentioned topics such as LGBTQ issues, birth control, and consent. P2 said of discretionary additions: "I talk about more STIs than just HIV and AIDS. I talk about consent, healthy and unhealthy relationships, stuff like that." P6 also referred to the supplementary nature of discretionary additions in stating: "I don't think this program is totally comprehensive, in that they don't discuss some topics that our kids want to talk about, like LGBTQ conversations . . . I take the time to add it to my lesson plan." To

meet students' perceived information needs, P3 used discretion to add to the recommended curriculum "evidence-based things with decision-making and refusal skills."

**Theme 4: Teachers' Belief that Sex Education Should Meet Students' Needs Makes Their Practices Responsive to Student Feedback**

Six out of 10 participants reported that their sex education practices were determined in part by the interests and needs their students expressed during class. No participants contradicted this theme. The participants who contributed to this theme reported that they identified student needs and interests by observing patterns in class discussions and student questions. sex education curriculum would then be modified to ensure that students' expressed needs were met. Participants engaged in the practice of modifying instruction to meet student needs because of their belief that sex education should enable students to make healthy, informed decisions, and that students' expressions were a valid source of information about what they needed in order to do so.

Participants offered examples of specific ways they had modified curriculum to meet students' expressed needs. P3 provided the following example of a specific change: "In, 2016, after Trump was elected, we had a lot of students asking about gay rights. So that became a topic." P3 framed this change as an example of a broader, beliefs-based approach to teaching: "I'm all for *ad hoc* questions. I'm the sort of teacher who does not get embarrassed by any sort of question. If I don't know the answer, I'll research it." P5 invited Planned Parenthood representatives to hold discussions with students about STIs but shifted the focus according to students' expressed needs: "We have people like

Planned Parenthood who can come in and talk to my students. I may ask them to spend extra time on a particular subject my students are really interested in." P6 solicited student feedback to guide the emphasis of the curriculum: "I give students the opportunity to bring up topics they want to see me cover."

Participants reported that the modifications they made to meet students' needs were based on their belief that sex education should serve students. After expressing misgivings about the extent of teacher discretion in determining sex education practices, P4 described that freedom as congruent with their own belief in the need to tailor sex education instruction to meet student needs: "We need room to tailor the program to our kids." P4 offered as an example of how sex education should be tailored to meet student needs: "We have kids who are struggling with their sexuality, and they need to know that we are interested in discussing topics that directly apply to them." As another example, P4 added, "Sex trafficking and consent are topics that are starting to become more common." In describing the belief on which this tailoring of instruction was based, P4 said: "We need to be able to meet our kids where they are." P8 also reported the belief that sex education instructors should be prepared to meet students' expressed needs: "[sex education is] not just the human body and STDs anymore. There are lots of in-depth conversations on subjects our students want us to cover, and we should be prepared to do so."

**Theme 5: Teachers Strive to Minimize the Influence of Their Personal Biases**

All 10 participants believed that sex education should meet students' informational needs, whether those needs were assessed according to the teacher's beliefs

about which topics were important, or according to student feedback. In either case, instruction was intended to be student-centered, and its overarching goal was to prepare students with evidence-based, up-to-date information applicable to healthy, informed decision-making. Participants distinguished between the use of teacher discretion to make instruction more informative and the use of that discretion to make instruction more prescriptive. All participants believed that the use of teacher discretion to augment informative, evidence-based instruction was appropriate, but that imparting personal biases through implicitly or explicitly prescriptive instruction was inappropriate and potentially harmful to students.

Participants believed there was a significant risk that teachers' personal biases would influence their sex education practices. P5 acknowledged this risk in stating, "It's hard to avoid how you feel [when teaching] . . . I've heard students complain about this teacher doesn't want to talk about LBGTQ topics or keeps talking about abstinence." P6 colloquially described teachers' moral biases as exerting a subliminal but significant influence: "Teachers will bring in negative vibes to their students . . . We have some teachers who promote abstinence really hard but don't want to talk about condoms or birth control. Or they skip over it really quick." In describing perspectives reported by some colleagues, P4 stated, "I've heard teachers say that parts of the curriculum make them uncomfortable because they were not raised to have these discussions, especially around homosexuality." P7 expressed the perception that some teachers allowed moral bias to inappropriately influence instruction: "I think some teachers believe they can tell their students what to do based on what they want them to do, not what is best for them."

P8 reporting hearing that personal bias could negatively impact instruction by causing the teacher to exclude or suppress important aspects of the curriculum: “I have heard stories of teachers who refuse to give a condom demonstration. I don’t know if it’s because they don’t believe in birth control or they feel uncomfortable, but they won’t do it.” P4 supported P8’s report of bias-motivated omissions by describing personal experiences as a student: “I had horrible experiences with health teachers when I was a kid. They did not want to discuss anything but anatomy and how the body works, but not social issues.” P9 also expressed doubts about whether all teachers worked sufficiently to minimize the impacts of their biases on students: “We’re teachers, and we’re trained to keep our opinions to ourselves. I don’t know if every teacher takes that advice.”

Participants expressed the belief that teachers are obligated to mindfully suspend their moral biases to prevent negative impacts on students. In describing negative impacts of teacher bias, P4 reported: “I have heard from my students that they have felt uncomfortable in other health classes. They tell me that their teacher seemed unprepared or nervous about the topic.” P4 added of the potential effects of teacher bias: “I think our beliefs impact how our kids see themselves and we have to be really careful not to send the wrong message.” P10 said of expressions of teacher bias during sex education: “It’s not good for the students. Your personal beliefs don’t matter, and more teachers need to realize that before they say something they will regret later.” P8 said of teachers whose personal biases prevented them from performing condom demonstrations, “We want our kids to be safe, and they are putting their personal feelings ahead of the students’ needs.” P5 also spoke of teachers’ professional obligation to suspend their biases in the

classroom: “We’re supposed to be professionals, so we should keep our personal feelings to ourselves.” P1 described an example of a potential teacher bias and its negative impact on students:

> For example, homophobia. If you can’t be open or can’t accept gay or LGBTQ, that’s your religious beliefs, leave your beliefs at home. You’re are not going to be able to teach—and I’ve had a student tell me that. This student is in the LGBTQ community, and he said, “Oh no, my teacher did not make me feel welcome.”

Participants stated that as a result of their belief that allowing personal biases to impact sex education practices was inappropriate, they worked to mindfully suspend their biases. P4 implicitly contrasted the appropriate use of teacher discretion to convey evidence-based information with the inappropriate use of discretion to impart a personal beliefs-based morality: “I believe kids need a well-rounded, scientific approach to sex education. Give the kids all of the facts: the good, the bad, and the really ugly. I’m not telling them how to live their lives.” P7 also refrained from prescriptive instruction: “I don’t tell [students] what to think or do . . . I’m not trying to intimidate them or force something down their throat.” P8 acknowledged the risk that biases would impact sex education instruction but described making a daily commitment to suspending them: “I believe our personal beliefs shape how we perceive the world around us, and our biases are real. I hope that I’m a good influence on my students by checking my biases at the door.” P8 specified that suspending biases involved self-reflection: “I am mindful of how I was raised or my experiences and whether it makes a difference.” P2 also reported a

daily commitment to the principle of excluding bias from instruction: “I’ve been trained to leave my personal beliefs behind when I walk in. Obviously, biases can creep in without my even knowing it. But I do my best to leave that at bay and give [students] just the facts.” Like other participants, P3 acknowledged the potential impact of teachers’ personal bias but reported excluding it from instruction: “Everybody has a history and experiences that impact everything we do. But I don’t think I bring my stuff into the classroom.

## Summary

The research question was in what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education (sex education) teaching practice? Five themes emerged during data analysis to answer the research question. The first theme was that teachers have broad discretion to modify recommended sex education curriculum according to their beliefs. This theme addressed the extent to which teachers’ beliefs potentially influenced their sex education practices, rather than the types of changes teachers’ beliefs caused them to implement. All 10 participants reported that they had discretion to modify the recommended curriculum to any extent they considered appropriate, including by replacing it with a different curriculum altogether. The only requirement for sex education was that it be comprehensive and evidence-based, and implementation of the recommended curriculum (“Be Proud, Be Responsible”) was neither overseen nor enforced. Teachers’ beliefs could therefore influence their sex education practice to the extent of causing them to add topics not referenced in the recommendation or omit recommended topics altogether.

The second theme was that congruent teacher beliefs promote fidelity to comprehensive sex education. All 10 participants indicated that the agreement between comprehensive, evidence-based sex education and their personal beliefs caused them to limit their modifications to the recommended curriculum. When participants modified lessons, they did so in a manner consistent with what might be called the spirit of the recommended curriculum. Participants voluntarily limited their modifications to evidence-based instruction designed to enhance rather than undermine the recommended curriculum's focus on promoting healthy, informed decision-making.

The third theme was that teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum. Seven out of 10 participants reported that they preplanned additions to the recommended curriculum according to their beliefs about students' informational needs. No participants contradicted this theme. The participants who contributed to this theme reported that the recommended curriculum placed a strong emphasis on STI prevention. Participants believed the recommended curriculum was valuable but not comprehensive enough. In describing specific elements they added to the recommended curriculum, participants cited topics such as LGBTQ issues, birth control, and consent.

The fourth theme was that teachers' belief that sex education should meet students' needs makes their practices responsive to student feedback. Six out of 10 participants reported that their sex education practices were determined in part by the interests and needs their students expressed during class. No participants contradicted this theme. The participants who contributed to this theme reported that they identified

student needs and interests by observing patterns in class discussions and student questions. sex education curriculum would then be modified to ensure that students' expressed needs were met. Participants engaged in the practice of modifying instruction to meet student needs because of their belief that sex education should enable students to make healthy, informed decisions, and that students' expressions were a valid source of information about what they needed in order to do so.

The fifth theme was that teachers strive to minimize the influence of their personal biases. All 10 participants believed that sex education should meet students' informational needs, whether those needs were assessed according to the teacher's beliefs about which topics were important, or according to student feedback. In either case, instruction was intended to be student-centered, and its overarching goal was to prepare students with evidence-based, up-to-date information applicable to healthy, informed decision-making. Participants distinguished between the use of teacher discretion to make instruction more informative and the use of that discretion to make instruction more prescriptive. All participants believed that the use of teacher discretion to augment informative, evidence-based instruction was appropriate, but that imparting personal biases through implicitly or explicitly prescriptive instruction was inappropriate and potentially harmful to students. Chapter 5 includes interpretation, discussion, and implications of these findings.

# Chapter 5: Discussion, Conclusions, and Recommendations

Students' healthy and informed decision-making concerning their sexual behaviors is effectively promoted by unbiased instruction in an evidence-based sex education curriculum (FoSE, 2012; Hills et al., 2013; Lamb et al., 2013). However, public school-based sex education programs for adolescents in the United States often adhere to abstinence-only or abstinence-based models, which are ideology-based rather than evidence-based, and which limit or exclude evidence-based, unbiased discussion of topics such as STIs, unwanted pregnancies, and nonheterosexual orientations (Stevens et al., 2013). Many U.S. school districts' sex education policies are also characterized by ambiguity, lack of oversight, and an absence of meaningful curricular or instructional standards, with the consequence that instructors have broad discretion to modify curricula and teaching practices according to their personal biases (Lamb et al.,2013). However, the extent and nature of teachers' belief-based modifications to sex education instruction have not previously been investigated. This study was conducted to address this gap in the literature and facilitate an evidence-based evaluation of the risks and benefits of both ideology- and research-based sex education (see Carrion & Jensen, 2014).

The purpose of this qualitative phenomenological study was to identify how the personal beliefs associated with sex education, as understood by 9 to 12 educators, influence teaching practice. I explored and documented (a) whether educators believe their sex education instruction is affected by personal beliefs and (b) to what degree educators feel that their beliefs affect individual teaching practice. The research question

was as follows: In what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice?

Data were collected through one-to-one, semistructured interviews with a purposive sample of 10 high school teachers who provide sex education to students in Grades 9 to 12 in Minnesota. Verbatim transcripts of the audio-recorded interviews were imported into NVivo 12 software and analyzed inductively and thematically using the 6-step procedure recommended by Braun et al. (2014). The following five major themes were identified in the data to answer the research question: (a) Teachers have broad discretion to modify recommended sex education curriculum according to their beliefs, (b) congruent teacher beliefs promote fidelity to comprehensive sex education, (c) teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum, (d) teachers' belief that sex education should meet students' needs makes their practices responsive to student feedback, and (e) teachers strive to minimize the influence of their personal biases.

This chapter includes discussion, interpretation, and recommendations based on the study findings. The following section comprises interpretations of the findings in relation to previous literature. Next, this chapter includes a review and discussion of the study's limitations, followed by recommendations for further research based on those limitations and previous literature. This chapter then precedes with a discussion of the implications of the study findings for positive social change and sex education teaching practice.

## Interpretation of the Findings

In this section, I describe how the study findings confirm, disconfirm, or extend conclusions presented in the peer-reviewed literature discussed in Chapter 2. The discussion is organized according to the five major themes that emerged during data analysis. The findings are also discussed concerning the conceptual framework, Bronfenbrenner's (1979) ecological systems theory (EST).

### Theme 1

Theme 1 was that teachers have broad discretion to modify recommended sex education curriculum according to their beliefs. This theme addressed the extent to which teachers' beliefs potentially influenced their sex education practices, rather than the kinds of changes teachers' beliefs caused them to implement. All 10 participants reported they had the discretion to modify the recommended curriculum to any extent they considered appropriate, including to replace it with a different curriculum altogether. Implementation of the recommended sex education curriculum was neither overseen nor enforced. These findings confirmed those of previous researchers, who have reported that standards are presently lacking but needed both for sex education curriculum and sex education instruction (see Abbott et al., 2016; Ballonoff Suleiman et al., 2015; Hall et al., 2016; Herbert et al., 2014).

Participants in this study indicated that the district provided them with a recommended curriculum called "Be Proud, Be Responsible" that was comprehensive but highly focused on STI prevention, particularly in relation to HIV. Topics such as consent, LGBTQ issues, unwanted pregnancy, and STIs other than HIV were added or omitted at

teachers' discretion. Additionally, participants reported a lack of oversight or enforcement at the school or district level to ensure that the recommended curriculum was being correctly taught or taught at all. Participants expressed discomfort with the level of discretion they were allowed in determining curriculum and instructional practices, citing the perceived likelihood that some teachers would misuse their discretion in ways detrimental to students' sexual health. These findings confirmed those of Ballonoff Suleiman et al. (2015), Barr et al. (2014), and Herbert et al. (2014), who reported that a standardized, evidence-based sex education curriculum is lacking, but that such a curriculum is a necessity for effectively promoting adolescents' informed and healthy decision-making regarding sexual behaviors.

Participants in this study also reported that in addition to their complete discretion in sex education curriculum and instruction, they received little or no guidance in selecting or teaching topics omitted from the recommended curriculum. Without guidelines to follow, participants resorted to researching topics online that they considered critical and developing a curriculum based on their findings. Abbott et al. (2016) and Van Leent and Ryan (2016) noted that researchers had paid little attention to how teachers use their power to include and exclude sex education topics at their discretion in the absence of proper, extensive training curriculum and policy support. Findings in the present study addressed this defined gap in the literature and extended previous researchers' findings by indicating that participants made good-faith efforts to supplement evidence-based sex education curriculum by conducting independent research. However, Van Leent and Ryan (2016) concluded that without training and

support, teachers are often unable to modify the recommended curriculum in a manner that aligns with evidence-based strategies. Thus, while teachers in the present study did not express doubts about their ability to supplement the recommended curriculum appropriately without training and support, the findings of Van Leent and Ryan indicated that these doubts would have an impact. Furthermore, teachers need to be given and trained in clear, comprehensive curriculum and instruction standards to promote students' sexual health effectively.

Ecological systems theory as described by Bronfenbrenner (1979) and Prado et al. (2013) contextualized these findings through the emphasis on what was lacking from them, namely, a lack of significant mesosystem-based (i.e., relationships between the school and district- or school-level oversight and policy) determination of curriculum and instruction. The consequence was that teachers had the power to modify curriculum and instruction to align with exosystemic influences (i.e., political or religious ideologies) to the detriment of the quality and efficacy of sex education. This finding was consistent with that of McLeory et al. (1988), who, in using an ecological systems theory framework, concluded that environmental systems in which the child did not directly participate could influence the child's development. Through the influence of beliefs, they instilled ideas at the discretion of influential people who helped raise the child, such as teachers.

**Theme 2**

Theme 2 was that congruent teacher beliefs promote fidelity to comprehensive sex education. While findings associated with Theme 1 indicated the extent of the

modifications that teachers had the power to make to the sex education curriculum, findings related to this theme stated the discretionary modifications' nature. Participants reported strong agreement with the recommended model of unbiased instruction and evidence-based curriculum. As a result, they used their discretion in a manner consistent with what might be called the spirit of comprehensive, evidence-based sex education. They endeavored to deliver unbiased, evidence-based information gathered through their independent research. In relation to the literature, two aspects of this finding are particularly salient.

First, as discussed in regard to Theme 1, teachers without appropriate and substantial training and ongoing support are unlikely to modify the recommended sex education curriculum in an optimal manner (Van Leent & Ryan, 2016). Although participants in this study reported good-faith efforts to align their modifications with the underlying philosophy and goals of an evidence-based curriculum, their modifications' effectiveness is unknown. Second, participants supported unbiased instruction in an evidence-based curriculum because of personal beliefs in its efficacy. While this belief was consistent with researchers' findings (see Breuner et al., 2016; Lerner & Hawkins, 2016; Workman et al., 2016), it emerged from exosystemic influences (McLeory et al., 1988) that convinced participants to favor science over ideology. Participants characterized teachers' freedom as a significant threat to students' sexual health and safety because it opened the way for arbitrary, exosystemic influences on teacher beliefs to shape sex education.

**Theme 3**

Theme 3 was that teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum. This theme extended the findings in Theme 2 by indicating that participants' general, belief-based support for unbiased, evidence-based sex education translated into the addition of specific topics to the curriculum based on participants' beliefs about students' informational needs. As with Themes 1 and 2, the findings in this theme indicated that participants were using their discretion in a manner congruent with researchers' results of unbiased, evidence-based sex education. Consequently, this is the most effective model for promoting adolescent students' sexual safety and health (Breuner et al., 2016; Lerner & Hawkins, 2016; Workman et al., 2016). Also consistent with Themes 1 and 2, Theme 3 confirmed that teachers' modifications to the recommended curriculum, however effective or well-meant, were arbitrary due to the absence of a detailed, mandated, standardized curriculum or training in and ongoing support for unbiased instruction.

Findings in this study indicated that participants' beliefs about students' informational needs were consistent with the recommendations of researchers, in that they included topics such as consent (Kelly, 2017), STDs and STIs (Barr et al., 2014; Breuner et al., 2016), and LGBTQ subjects (DePalma & Francis, 2014; Lynch, 2017; McNeill, 2013). However, the researchers who recommended the inclusion of those topics also cautioned that when teachers decide how to discuss them, teacher biases are likely to manifest in ways detrimental to adolescent students' sexual health, safety, and autonomy (Van Leent & Ryan, 2016). In general, expressions of instructor biases can

lead to feelings of guilt, shame, and confusion if students perceive their behavior as inconsistent with norms imparted in the classroom (Gonzalez et al., 2016). Teachers acting on their discretion tend consciously or unconsciously to perpetuate social inequalities. Teachers attempting to incorporate the recommended topic of consent tend to reinforce patriarchal norms by implicitly characterizing boys as predatory and girls as the victims or prey in sexual relationships (DePalma & Francis, 2014). Many teachers also struggle to understand consent and to translate its meaning to their students effectively (Kelly, 2017). Heterosexual teachers tend to be ineffective in normalizing LGBTQ subjects' discussion and minimizing heteronormativity without adequate, prior preparation, and ongoing support (DePalma & Francis, 2014; Lynch, 2017; McNeill, 2013). Teachers are also likely to resist gender-affirming pedagogy and emulate traditional discourse around gender norms when teaching transgender students (Smith & Payne, 2016). Participants in the present study used their discretion to introduce topics consistent with researcher recommendations. Still, there remains a significant risk that even evidence-based additions will be delivered through an instructional style detrimental to some or all students' dignity or autonomy

**Theme 4**

Theme 4 was that teachers' belief that sex education should meet students' needs makes their practices responsive to student feedback. This theme was identified in participants' responses indicated they believed sex education should meet students' needs. As a result, they used students' expressions of interest or knowledge gaps in the classroom to guide instruction, as by emphasizing or introducing topics. Researchers

have noted that sex education should be oriented toward meeting students' informational needs to prepare them to make healthy, informed choices regarding sexual behaviors (Bridges & Hauser, 2014; Workman et al., 2016). However, participants' belief in using student feedback as a source of guidance confirms some research findings and disconfirms others.

Researchers have emphasized the need for sex education to promote students' best interests concerning sexual health and safety. There is a dire need for sex education that provides young people with age-appropriate, unbiased information and the skills they need to take responsibility for their health and overall well-being (Bridges & Hauser, 2014). Bridges and Hauser (2014) argued that society is responsible for safeguarding adolescents by providing the information they need through comprehensive sex education. Berglas et al. (2014) added that sex education should be equipped in a manner that respects and promotes adolescents' agency in accordance with the principle that adolescents have sexual rights. However, it is not clear that allowing students' responses to guide sex education's focus is an optimal practice for providing adolescents with the information and skills they need (as opposed to those in which they spontaneously express an interest) to support their sexual health, safety, and autonomy.

Participants in this study reported omitting or deemphasizing a preplanned curriculum for students who appeared uninterested in favor of topics in which students expressed interest and curiosity. However, no studies were found in the previous literature that recommended this practice. Instead, sex education researchers have consistently advocated for a standardized, evidence-based, equity and diversity-focused

curriculum that incorporates sexual orientation, gender norms, sexual pleasure and expression, sexual violence, individual responsibilities and rights in relationships, and critical thinking regarding sexual choices and sexuality (Ballonoff Suleiman et al., 2015; Barr et al., 2014; Berglas et al., 2014; Breuner et al., 2016; DePalma & Francis, 2014; Herbert et al., 2014; Kelly, 2017; Lerner & Hawkins, 2016; Lynch, 2017; McNeill, 2013). These recommendations are unlikely to be compatible with allowing student expressions of interest in the classroom to determine the expansion or omission of topics. Doing so would let students join teachers in exercising broad discretion over sex education curriculum when researchers have consistently warned that such preference is likely to perpetuate social inequalities and unlikely to meet students' actual informational and instructional needs (DePalma & Francis, 2014; Gonzalez et al., 2016; Kelly, 2017; Smith & Payne, 2016; Van Leent & Ryan, 2016).

**Theme 5**

Theme 5 was that teachers strive to minimize the influence of their personal biases. Participants distinguished between teacher discretion to make instruction more scientifically informative and use discretion to make education more ideologically prescriptive. All participants believed that the use of teacher discretion to augment informative, evidence-based instruction was appropriate, but that imparting ideological biases through implicitly or explicitly prescriptive instruction was inappropriate and potentially harmful to students. The finding that ideologically prescriptive sex education is detrimental to students' dignity, autonomy, and knowledge confirmed those researchers (Breuner et al., 2016; Lerner & Hawkins, 2016; Workman et al., 2016). However, the

literature has indicated that even uses of teacher discretion to augment evidence-based instruction are likely to increase the negative impact of teachers' implicit biases on students (DePalma & Francis, 2014; Gonzalez et al., 2016; Kelly, 2017; Smith & Payne, 2016; Van Leent & Ryan, 2016). It should be noted that participants in the present study did not modify the recommended curriculum arbitrarily. Participants added topics because they felt obligated to remediate the omission of those topics from the curriculum. They reported discomfort with their discretion level, and they agreed with researchers that a detailed, standardized, evidence-based curriculum would and should eliminate it.

Participants' descriptions of the effects of teacher bias on students confirmed those of previous researchers. Sex education (sex education) in the United States is governed by teachers' beliefs and values (Herbert et al., 2014). The policy may include curriculum and implementation guidelines, but individual teachers routinely add or omit topics at their discretion, with the result that teacher bias has an extensive impact on students (Abbott et al., 2016). Teacher biases related to LGBTQ subjects (Lynch, 2017; McNeill, 2013), heteronormativity and gender and racial norms (DePalma & Francis, 2014; Francis & DePalma, 2014), transgender identities (Smith & Payne, 2016), and consent (Kelly, 2017) may shame, invalidate, or confuse even the students of teachers who are supportive enough to provide instruction on those topics (Gonzalez et al., 2016). Researchers have also found teachers' reported intentions to offer unbiased instruction on potentially controversial issues are often not reflected in their actual instructional practices. Approximately one-quarter of teachers who express support for LGBTQ-inclusive instruction do not implement it in their classroom, and heterosexual teachers

who do implement it tend to do so by rote rather than from a position of fully committed support (Gorski et al., 2013; Meyer et al., 2015). Most teachers who have received some training in and expressed a commitment to gender-affirming pedagogy became preoccupied with the logistics of accommodating transgender students' needs instead of making structural changes to support those students (Smith & Payne, 2016). Instructional practice in any subject can be influenced by teacher bias. Still, there is evidence that the highly personal and ideologically charged nature of sexuality heightens the risk that teacher bias will negatively impact instruction (Demby et al., 2014; Ragonese et al., 2017). In comparison to their colleagues in other subjects, sex education teachers need more rather than less support to provide unbiased, evidence-based instruction (Arons et al., 2016; Whitman & Bidell, 2014).

## Limitations of the Study

The qualitative methodology and procedures placed limitations on the scope of this study. Qualitative findings are grounded in the specific contexts and perspectives from which the data was collected, so they cannot be confidently generalized from the sample to the population of interest (Merriam & Tisdell, 2016). The sampling procedure and geographic setting used in this study are also likely to limit the findings' transferability to other populations and samples (Denzin & Lincoln, 2008). For example, data collected in a Grade 9-12 setting may not hold true in a Grade K-5 setting, and data collected from instructors in a school district where the recommended curriculum is evidence-based may not hold true of sex education instructors in a district where the recommended curriculum is abstinence-only. To assist readers in assessing the findings'

transferability, thick descriptions of the data have been provided in Chapter 4. Thick descriptions contextualize findings in the perspectives from which they were drawn, as by quoting participants' own words and attributing quotations to specific participants for whom demographic information is provided (Denzin & Lincoln, 2008).

The data collection procedure limited the credibility and dependability of the findings by making them dependent on participants' self-reports (Denzin & Lincoln, 2008). Participants' self-reports are the most trustworthy source of data in research using a phenomenological design (Moustakas, 1994), but participants' errors and biases may influence the findings. The thematic analysis procedure recommended by Braun et al. (2014) was used to mitigate this threat to credibility and dependability. Identifying themes that incorporated the majority of participants' perspectives minimized the potential for participants' errors and biases to influence the findings (Braun et al., 2014).

## Recommendations

The qualitative methodology in this study limited the generalizability of the findings, and the delimitations of sample size, geographical area, and organizational setting limited the transferability of the findings (Denzin & Lincoln, 2008; Merriam & Tisdell, 2016). Therefore, it is recommended that future research be conducted to assess the generalizability and transferability of the findings and the implications based on those generalizations. Quantitative analysis involving the administration of a validated survey instrument to a sample of sufficient size is recommended to confirm or disconfirm the generalizability of the findings in this study (Yin, 2016). Replications of this qualitative,

phenomenological study with different populations and settings are recommended to assess transferability (Denzin & Lincoln, 2008).

It is also recommended future research be conducted to further minimize the threat to credibility and dependability associated with reliance in this study on participants' self-reports. Specifically, it is recommended that qualitative or mixed-methods case study research be conducted to facilitate triangulation of data from sources such as researcher observations, student, parent, teacher, and administrator interviews or questionnaires, focus groups, and archival documents. Such research would facilitate developing a more trustworthy description of the phenomenon of interest (Yin, 2017).

## Implications

This study's findings have significant implications for positive social change when interpreted in light of the previous literature. Unbiased sex education instruction, guided by a detailed, standardized, evidence-based curriculum, has been identified as an effective means of equipping adolescents to make healthy, informed choices about sexual behaviors (Barr et al., 2014; Carr & Packham, 2017; Hills et al., 2013; Williams & Jensen, 2016). However, implementing such a model in the United States has been impeded by political, sociocultural, and systemic obstacles (Hall et al., 2016). In the absence of a mandated model with meaningful oversight, individual sex education instructors are at liberty to develop or modify sex education curriculum and instruction according to their own beliefs, their perceptions of students' needs, and the ideological and political biases in their communities (Arons et al., 2016). Students often receive unsubstantiated or ambiguous curricula that are ideologically or politically driven and do

not meet their informational needs (Hills et al., 2013; Lamb, 2013; Stevens et al., 2013). Consequently, U.S. teen pregnancy and STI rates are among the highest in the developed world (Barr et al., 2014; Carr & Packham, 2017; Hills et al., 2013; Williams & Jensen, 2016).

There has been a need to understand how teacher beliefs impact sex education instructional practices, mitigate those impacts in the present, and facilitate a more informed evaluation of their implications for a future, nationally standardized, evidence-based curriculum. Findings in this study confirmed that participants have complete discretion to modify the recommended curriculum. Findings in this study added to those of previous researchers that the resulting modifications are based entirely on teachers' beliefs about the importance of meeting students' informational needs, the validity of student expressions of interest as indicators of those needs, the efficacy of evidence-based curriculum in facilitating students' sexual health, and the inappropriateness of allowing personal bias to influence instruction. Participants' beliefs coincided with researcher recommendations on all points except the validity of student expressions of interest as informational-need indicators. However, participants reported some teachers' beliefs were incongruent with researcher recommendations, to the detriment of sex education quality.

A comparison of the findings with previous literature indicated that the impact of teacher beliefs on sex education instruction was likely detrimental to students' sexual health. Limiting the extent of that impact would require implementing a mandated, standardized, evidence-based curriculum with instructional training and ongoing support.

Findings in this study have implications for positive social change because they affirmed and explained the urgency of developing and implementing a mandated, standardized, evidence-based curriculum as the most effective means of ensuring that teachers deliver effective and appropriate sex education. These findings imply that educators, policymakers, students, and parents must demand and implement a sex education curriculum that enables all instructors to promote the sex education goals of mitigating the disproportionate rates of unwanted pregnancies and STIs among U.S. adolescents (Barr et al., 2014; Carr & Packham, 2017; Hills et al., 2013; Williams & Jensen, 2016). A standardized, mandated, evidence-based curriculum also has the potential to ensure that all sex education instructors can and do disrupt the perpetuation of social inequalities through biased instruction and to validate the identities and promote the informed, healthy, and autonomous sexual choices of all U.S. adolescents (DePalma & Francis, 2014; Gonzalez et al., 2016; Kelly, 2017; Smith & Payne, 2016; Van Leent & Ryan, 2016).

## Conclusion

Students' healthy and informed decision-making in relation to their sexual behaviors is most effectively promoted through unbiased instruction in an evidence-based sex education (sex education) curriculum (FoSE, 2012; Hills et al., 2013; Lamb, 2013). However, public school-based sex education programs for adolescents in the United States often adhere to 'abstinence-only' or 'abstinence-based' models, which are ideology- rather than evidence-based and do not meet students' informational needs (Hills et al., 2013; Lamb, 2013; Stevens et al., 2013). Consequently, U.S. teen pregnancy and STI

rates are among the highest in the developed world (Barr et al., 2014; Carr & Packham, 2017; Hills et al., 2013; Williams & Jensen, 2016). Individual sex education instructors also have broad discretion to modify curricula and teaching practices according to their personal beliefs, potentially exacerbating the effects of community-level ideological biases on the quality of sex education (Lamb, 2013). However, the extent and nature of teachers' beliefs-based modifications to sex education instruction have not previously been investigated.

The purpose of this qualitative phenomenological study was to identify how the personal beliefs associated with sex education, as understood by 9-12 educators, influence teaching practice.

The research question was: In what ways do the personal beliefs of public school (Grades 9-12) teachers influence sex education teaching practice? Data was collected through one-to-one, semi-structured interviews with a purposive sample of 10 high school teachers who provide sex education to students in Grades 9-12 in Minnesota. Inductive, thematic analysis of the interview data resulted in the identification of five major themes to answer the research question: (1) teachers have broad discretion to modify recommended sex education curriculum according to their beliefs; (2) congruent teacher beliefs promote fidelity to comprehensive sex education; (3) teachers' beliefs about students' informational needs guide their planning of additions to the recommended curriculum; (4) teachers' belief that sex education should meet students' needs makes their practices responsive to student feedback, and; (5) teachers strive to minimize the influence of their personal biases.

The findings extended those of previous researchers by confirming the extent and specifying the nature of the influence of teacher beliefs on sex education instruction. A comparison of the findings with previous literature indicated that the impact of teacher beliefs on sex education instruction was likely detrimental to students' sexual health. Limiting the extent of that impact would require implementing a mandated, standardized, evidence-based curriculum with instructional training and ongoing support. The urgency of developing and implementing a mandated, standardized, evidence-based curriculum is the most effective means of ensuring that teachers deliver effective and appropriate sex education. Furthermore, these findings imply that educators, policymakers, students, and parents must demand and implement such a curriculum to enable all instructors to promote the sex education goals of mitigating the disproportionate rates of unwanted pregnancies and STIs among U.S. adolescents. A standardized, mandated, evidence-based curriculum also has the potential to ensure that all sex education instructors can and do disrupt the perpetuation of social inequalities through biased instruction and to validate the identities and promote the informed, healthy, and autonomous sexual choices of all U.S. adolescents.

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# Appendix A: Public School Teacher Interview Protocol

Hello. My name is Denise, and I am a Doctoral Candidate at Walden University. I am conducting a dissertation research study on sex education practice. More specifically, this phenomenological study will examine how personal ideology affects individual teaching practice. I am pleased that you are willing to talk to me about teen pregnancy and sexually transmitted disease prevention.

The interview process will take about 30 minutes. You may skip a question any time you feel uncomfortable answering. There are no right or wrong answers to the questions I will pose. I want you to be candid. I hope that the findings will contribute useful information to address issues identified in the information you provide. The comments you provide are confidential; I won't use your name in any description or summary that I write.

Additionally, I will record the conversation today to ensure my notes are accurate. Only the transcriber and I are involved with this effort and will hear these recordings; the recordings will be destroyed after five years, the required time that the dissertation data must be maintained. Subsequent the interview, the transcript of your interview will be sent to you to ensure accuracy. Do I have your permission to record? Do you have any questions before we start?

# Appendix B: Research Study Question

**The following question is the foundation for this study. These are not the interview questions. They are noted below.**

RQ1- In what ways do the personal beliefs of public-school teachers (Grades 9-12) influence sex education teaching practice?

# Appendix C: Participant Interview Questions

1. Where do you teach sex education (school name)

2. What grade(s) do you teach? How long have you taught sex education in a public-school setting?

3. What type of sex education program do you teach? (Comprehensive, abstinence-only, or other)

4. Are you required (mandated) to use a specific sex education curriculum?

5. Who creates/develops the sex education program in your school?

6. What role, (if any) do you have in developing sex education curricula?

7. Can you add or omit material from the curricula? If yes, have you used your discretion to add or omit material? Why? Or Why not?

8. What type of curriculum do you think is the most effective in reducing unwanted pregnancies and sexually transmitted diseases?

9. Do you think the personal beliefs of educators have an impact on teaching practice? If yes, in what ways (if any) do you think the personal opinions of educators affect their teaching practice?

10. Do you think your personal beliefs have an impact on teaching practice?