GENERAL EDUCATION AND SPECIAL EDUCATION TEACHERS' ATTITUDES AND COMFORT LEVELS IN HAVING APPROPRIATE CONVERSATIONS WITH SPECIAL NEEDS STUDENTS: A CAUSAL-COMPARATIVE STUDY

by

Jessica Hensley

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

The purpose of this quantitative, causal-comparative study is to determine if there is a difference in special education and general education teachers' attitudes and comfort level in teaching sex education. Students with intellectual disabilities need a sex education curriculum that can be extended if needed to ensure that they understand and are able to apply their knowledge to personal situations if they arise. The study's sample includes high school and middle school special education and general education teachers. The sample was taken from participants who volunteered to take the survey via a link posted on social media account. A Microsoft Office 365 survey tool was posted on social media account via an IRB approved post; this survey included the TACS attitude and comfort scale questions as well as demographic questions. The results collected were sorted into the five attitudes and comfort level factors. A MANOVA was used to analyze resulting data. There was a statistically significant difference between the teachers on the combined dependent variables, $F(2, 68) = 9.712$, $p < .05$; Wilks $\Delta = .778$; partial $n^2 = .222$, indicating a large effect size. Therefore, the researcher rejected the null hypothesis.

Keywords: *Special education teachers, general education teachers, sex education, inclusion, students with intellectual disabilities, parents of students with special needs*

Dedication

This thesis is dedicated to my husband and daughters. Without your patience, prayers, and encouragement, I never would have finished.

Acknowledgments

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List of Abbreviations

Americans with Disabilities Act (ADA)

Dating Violence (DV)

Education for All Handicapped Children (EHA)

Health Belief Model (HBM)

Individualized Education Plan (IEP)

Individuals with Disability Act (IDEA)

Intellectual Disability (ID)

Intimate Partner Violence (IPV)

Public law 142 (PL-142)

Teachers Attitudes and Comfort Scale (TACS)

Theory of Planned Behavior (TPB)

CHAPTER ONE: INTRODUCTION

Overview

This quantitative, causal-comparative study aims to determine if special education teachers' and general education teachers' attitudes and comfort levels play a part in having appropriate conversations about sexuality with special needs students. Chapter One provides a background of Individuals with Disability Education Act (IDEA) and the history of sex education in the American school system. The background will give an overview of the theoretical framework for this study, including the theory of planned behavior and cognitive-anthropological cultural schema theory. The problem statement will examine the scope of the recent literature on this topic. The significance of the current study follows the purpose of this study. Finally, the research questions are introduced, and definitions pertinent to this study are provided.

Background

Teachers' professional personalities, as well as their intentions concerning inclusive teaching, are essential prerequisites for successful learning environments (Hellmich et al., 2019). General and special education teachers can have quite different roles and expectations placed on them in the classroom. Since the enactment of the Individuals with Disabilities Act, special education students have been included in the general education classroom and have been exposed to the general education curriculum in an inclusive setting. Inclusion, or an inclusive classroom, refers to providing all learners in the classroom access to the broad education curriculum, which requires educators' responsibility for providing access to that curriculum while potentially implementing accommodations (Puliatte et al., 2021). While special education teachers are accustomed to providing accommodations and altering their lessons, general

education teachers are not always aware of when and how to do this. One of the main barriers to the practice of inclusive education is represented by the teachers' attitudes toward inclusion and its' principles (Unianu, 2012). Sex education teachers must have a basic understanding of any questions that could be asked and worry that parents or outsiders might pressure them about the curriculum. In terms of sexuality education, a teacher's comfort has been expressed in the context of the teachers' knowledge about sexual health and their comfort in teaching and discussing sexual health topics. These have been associated with their actual coverage of sexual health topics and the ability to address their students' reactions to the content (Rose et al., 2018).

Historical Overview

Special education has not always been a part of America's school systems. In 1942, Congress enacted the Education for All Handicapped Children Act, or EHA, to protect the rights of infants, toddlers, children, and youth with disabilities (Shimo, 2019). With the enactment of the EHA, children with disabilities were still excluded from school systems; instead, the EHA supported several "Severely Handicapped Institutes" (Shimo, 2019). PL 94-142 fundamentally changed the lives of children with disabilities, families, and professionals by opening school doors for all children regardless of their disability (Itkonen, 2007). According to Itkonen (2007), PL 94-142 ended the systemic, institutionalized exclusion of students with disabilities. The education of children with disabilities, just like all other children, were now the responsibility of society. It was not until the late 1990s after EHA was changed into the Individuals with Disabilities Education Act (IDEA) that students with disabilities were more slowlyintegrated into the school systems. This integration entitled special education students the right to the general curriculum. Enacting the IDEA and the Americans with Disabilities Act (ADA) opened the door for students with disabilities to be more a part of the classroom and community. However,

individuals with disabilities still suffer disproportionately from adverse health outcomes and stigmas (Grove et al., 2018). In a study by Grove et al. (2018), it was determined that individuals with intellectual disabilities have significantly different health and social needs than their physically disabled counterparts due to developmental differences impacting behavior, communication, and independence.

Sex education was a norm in public schools in the 1950s. During this time, adolescence came to be defined as a distinct period in one's life (Cronenberg, 2013). According to Cronenberg (2013), this was considered the age of Eros, where sex drives were awakened, and it was believed that if one left these desires unmanaged, one would be dangerous and upset the balance of society. Sex education has since evolved from a family-life curriculum to an abstinence-based curriculum. No matter the era, sex has always been a taboo subject.

Sexual socialization occurs outside the home as children and adolescents observe community norms, consume mass media, and participate in cultural and religious activities (Shtarkshall et al., 2007). Students who are served in self-contained classrooms or students who are served in an inclusion setting do not always have the comprehension skills or the peer groups to learn things outside of their home and their classroom. Sexuality is an integral part of adult life, but the educational aspect has been relatively inaccessible to people with an intellectual disability (ID) because of barriers such as lack of privacy in institutional living situations or because they have been kept in ignorance (Cuskelly & Gilmore, 2007). Sex education curriculum has gone from family-oriented to comprehensive based to now abstinence-based. There is a lack of curriculum that will teach students about the appropriateness or the dangers or implications of sex. Sex education remains a contentious topic in the United States, especially within the public school systems. In October 2020, only 30 states and the District of Columbia required public

schools to teach sex education, and only 22 states require that sex education be medically and factually accurate (Galindo, 2022).

Society-at-Large

Sometimes individuals with disabilities display social-sexual behaviors that are found to be offensive, and this can have significant consequences (Sharp, 2022). In most special education classrooms, teachers use a social skills curriculum to help students understand what is appropriate in society, classrooms, home life, etc. These skills are taught and practiced as often as a standard math curriculum would be taught. Students with intellectual disabilities are often taught job skills and sometimes go to work during school hours to continue practicing these skills. If students with an intellectual disability are not taught skills or what is appropriate, they will likely not gain that skills from a social group as they are not exposed to peer interactions and conversations as a typical general education student would be. A child with an intellectual disability's sexual development may often be ignored, which can relate to their lack of self-expression, inability to understand what is happening around them, and even their lack of societal recognition (Top, 2022). In 2010, the US Census found that approximately 2.8 million people under 15 had a physical, intellectual, or emotional disability; these people are often excluded from a comprehensive sex education class (Milne, 2021). According to Milne (2021), studies have shown that 69% of individuals with severe intellectual disabilities have experienced sexual abuse, and 68-83% of women with disabilities have been victims of sexual assault. Students with intellectual disability have the same reproductive rights, and it is often a right that is taken away from them. Someone with an intellectual disability is often thought to be incapable of making independent decisions regarding their body, education, and care (Henley, 2017).

Theoretical Background

The health belief model's components hypothesize that behavior is a function of the individual's value of health and the individual's belief that specific preventive actions will achieve that goal (Rosenstock et al., 1988). The health belief model, developed by social scientists at the US Public Health Service, is vital in understanding special needs individuals and their sexual education. When special education students lack the social abilities to sort through fact and fiction, they run the risk of believing misinformation they receive from friends and other sources. They become what some call vulnerable because of their sexual behavior (Abbott et al., 2016). Sexuality, an essential aspect of one’s personality and sense of self, offers a gateway to intimacy that includes feelings of comfort, security, support, love, and affection; for people with mental disabilities, expressions of sexuality can become controversial (Howard-Barr et al., 2005). According to Rosenstock et al., the theory of planned behavior is a valuable framework for designing behavior change interventions and explicating the mechanisms by which the interventions expect to affect the behavior. The theory of planned behavior, developed by Icek Ajzen (Kan & Frabrigar, 2017), is a theory used to understand and predict behaviors, which posits that behaviors are immediately determined by behavioral intentions and under certain circumstances, perceived behavioral control. These behavioral intentions are determined by a combination of three factors: attitudes toward the behavior, subjective norms, and perceived behavioral control (Kan & Frabigar, 2017). Students in special education classrooms often do not always have the same access to peers or social circles to gain information regarding their sexuality. The theory of planned behavior can help special needs students learn about sexual desires and behaviors, but it can be argued that there is not always self-control.

Sexual education has become taboo, especially where some parents of students with disabilities are concerned. Sexual education classes have changed over the last few decades. It is now an abstinence-based curriculum rather than a comprehensive based sex education curriculum. The lack of a comprehensive based curriculum has not affected the general school populations, as these students can learn their sexual socialization through community norms, peer interactions, and consuming mass media (Shtarkshall et al., 2007). With the focus being abstinence-based, students with special needs are not receiving the sex education they deserve and are also not exposed to proper sex socialization. A comprehensive based program will allow access to topics such as appropriate sexual behavior and sexual socialization, as well as awareness of what is public and private, personal boundaries and safety (Strnadova et al., 2022). Stein et al. (2018) showed that parents of children with disabilities often believe their children's sexuality is dormant and that exposing them to sex education will awaken it. This fear and the belief that children with a disability are asexual has limited the sex education they are receiving at home as well (Stein et al., 2018). This lack of knowledge and socialization is taking away a fundamental human right, and it is why there is an increased risk of sexual abuse and sexual exploitation amongst children with a disability. With the approval of parents and an appropriate school board-approved comprehensive-based sex education curriculum being implemented in schools, the likelihood is that students with a disability will stay safer and healthier and be able to achieve independence in their sexuality (Taylor & Abernathy, 2022).

The theory of cognitive-anthropological cultural schema assumes that an individual's behavior is motivated by both personal and cultural knowledge and experience and that the cultural schema is information shared by a group of people's shared experiences and knowledge (Haas & Hutter, 2021). This theory gives insight into what a teacher thinks when asked to teach a

sexual education class to any students, let alone special education students. Teachers would act upon their personal experiences, and how those would motivate or disincline them to teach the curriculum, the theory would assume that their behavior is motivated by personal and cultural knowledge and experience (Haas & Hutter, 2021). Another factor that could cause discomfort would be a teacher's personal religious beliefs. These beliefs may result in abstinence-only messages and being reticent about safe-sex practices; they may feel that these topics are inappropriate and may condone or encourage students to have sex (Haas & Hutter, 2021). A proper sex education curriculum would provide the students with the knowledge and skill to understand their sexual development, establish healthy relationships and prevent HIV/other STDs and unintended pregnancy (Rose et al., 2018).

Problem Statement

When it comes to disability and sexuality, a large part of the issue lies in the fact that disabled people are infrequently included in the decisions made about their bodies, their education, and their care (Henley, 2017). Sex education has evolved through the years, starting with a marital focus, then a comprehensive focus, and now to a focus on abstinence. Literature spanning over the last 15 to 20 years documents the personal reasons that teachers are not comfortable having appropriate conversations that are comprehensively focused, such as fear of students asking questions that are inappropriate or afraid of parents becoming upset about the curriculum and what it entails. However, no literature compares general education teachers' attitudes and comfort levels and special education teaching with the comprehensive-based, sex education curriculum. In the United States public school system, health teachers may be required to teach sex education in a general education classroom; it is a part of their preservice course offerings and a curriculum they are typically trained to do. Most states focus on abstinence and

HIV rather than the changes in bodies and potential dangers of sex, such as venereal diseases and pregnancy. The sexual aspect of sex education is not taught for many reasons, but one of the main reasons is that teachers are not comfortable discussing the sexual aspect with students. Teachers feel uncertain about the theoretical basis that is associated with sex education and struggle with the age and cognitive ability of their students (Sato et al., 2022). Teachers are concerned about potential repercussions from parents, questions that students may ask, and concerns that it could go against their own religious beliefs. Students with special needs will likely require a more in-depth and visual model to help gain knowledge of sex education. Students with an intellectual disability may have trouble understanding the information and may require other sources, such as books with pictures, videos, or body part models.

Sex education content for individuals with disabilities must be accessible and personalized for their needs, which may be challenging to implement given that teachers must work simultaneously with multiple students who are developing at different rates socially and cognitively (Bloor et al., 2022). General education teachers struggling with the content will feel uncomfortable breaking down the curriculum to reach all learners and their diverse needs. Special education teachers can play many roles: self-contained teachers and co-teachers play different parts in serving students with IEPs and will see many levels of learners. A teacher used to working with students with autism may understand how those students may need visuals or social stories to understand a concept. With the teaching of a sex education curriculum, this teacher will have to explore visual options for those students. This teacher will also have to go into a more in-depth lesson that can be taught more than once to ensure an understanding. It has been observed that most teachers have no problem delivering sex education that consists of biological facts but find it difficult to teach some topics, such as condom use, masturbation, and

contraceptives (Mkumbo, 2012). The problem is that literature has not fully addressed the comfort levels and attitudes of general education and special education teachers, or how comfortable and prepared they feel to teach an in-depth sex education course to students with disabilities.

Purpose Statement

This quantitative, causal-comparative study aims to determine if special education teachers and general education teachers' attitudes and comfort levels play a part in having appropriate conversations with special education students. The independent variable is type of teacher, middle school or high school general education teachers and middle school or high school special education teachers. The dependent variables are the nine factors of attitudes and comfort levels of teaching sex education to special education students, comfort with the subject matter, teacher characteristics, course-specific teacher attitudes, course-specific teacher values, course-specific teacher training, teacher knowledge about sexuality, teacher attitudes towards sexuality, teacher interest about curriculum implementation, and teacher willingness to teaching difficult subjects (Perez et al., 2004). Sex Education can be defined as a lifelong process of building a solid foundation for sexual health through acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy (Halder, 2020). A general education teacher is responsible for instructing students in core academic curriculum (General Education Instructor Overview, n.d.). A special education teacher is a teacher who delivers specially designed instruction at no cost to parents to meet the unique needs of a child with a disability (Shepard et al., 2016). General and special education teachers' attitudes and comfort levels will be compared using the Teachers' Attitude and Comfort Scale (TACS) instrument (Perez et al., 2004).

Significance of the Study

Sexual health education for people with disabilities is essential to help and ensure the capacity of each individual to make informed and educated choices regarding personal safety, developing, and maintaining healthy relationships, and understanding how to maintain sexual health and hygiene (Taylor & Abernathy, 2022). Students with intellectual disabilities need a curriculum that can be extended if needed to ensure that they understand and are able to apply their knowledge if a situation arises. Encouraging an understanding of one's body, body autonomy, and appropriate social relationships is essential to help prevent abuse (Galindo, 2022). Although numerous studies have described the cultural and religious barriers teachers may encounter when teaching about sex and sexuality, less research has focused on the role of teachers' personal experiences (Hass & Hutter, 2021). The issue is that teachers are not prepared or necessarily comfortable teaching a sex education curriculum to any student, especially students who need a more in-depth explanation of the curriculum. In the United States, the only educators required to learn how to teach a sex education curriculum are health teachers, and the average time spent on that subject is short, and the curriculum is very generic. Teachers develop strategies based on dominant gender and sexuality discourses in school and try not to disturb widely accepted sexuality norms when teaching about sexuality (Erden, 2021). History indicates that people often believed that people with an intellectual disability were asexual and that they were not capable of making decisions regarding their bodies for themselves (Bloor et al., 2022). Research has proven that some autistic individuals struggle to understand that touching someone without consent could be considered rape or that masturbating in public is not socially acceptable. These are both situations that, with a proper sex education curriculum, these students can learn what is appropriate according to social mores (Bloor et al., 2022). Students with ID do

not learn social-sexual cues from peers. They do not always understand right from wrong by watching and learning around them. They require an in-depth curriculum that will guide them to being socially appropriate. General and special education teachers may lack training in this curriculum type. General education and special education teachers' attitudes and comfort levels need to be considered while choosing a comprehensive based sexual curriculum so that they can adequately expose their students with an intellectual disability to what could be considered a fundamental human right, their sexuality, while doing so at a level they feel comfortable.

Research Question

RQ1: What is the difference between the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special needs students?

Definitions

1. *Adolescence*- Adolescence is the phase of life stretching between childhood and adulthood (Sawyer et al., 2018).
2. *General Education Teacher*- General education teachers are responsible for instructing students in the core academic curriculum (General Education Instructor Overview, n.d.).
3. *Inclusion or Inclusive education*- Providing all learners in the classroom access to the general education curriculum (Puliatte et al., 2021).
4. *Intellectual disability (ID)*- Intellectual disability is a disorder characterized by significant limitations in intellectual functioning and adaptive behavior, as expressed in conceptual, social, and practical skills, with onset before 18 years of age or during the developmental period (Arcangeli et al., 2020).

5. *Sex Education*- Sex education is a lifelong process of building a solid foundation for sexual health through acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy (Halder, 2020).
6. *Sexuality*- Sexuality is defined as being a "natural part of being human" is multifaceted, having biological, social, psychological, spiritual, ethical, and cultural dimensions (Gougeon,2009).
7. *Special Education*- I.D.E.A. defines special education as instruction that is designed specifically to respond to the learning needs of an individual with disabilities regardless of environment, whether in a classroom, home, or hospital (Grancisco et al., 2020).
8. *Special Education Students*- Students who are served with specially designed instruction, at no cost to parents, to meet their unique needs (Shepard et al., 2016).
9. *Specially designed instruction*- Is the process of adapting as appropriate to the needs of an eligible child under the delivery of instruction (Shepard et al., 2016).
10. *The Health Belief Model*- The health belief model was constructed to explain which beliefs should be targeted in communication campaigns to cause positive health behaviors (Carpenter, 2010).
11. *The Theory of Planned Behavior* – The theory of planned behavior is used to understand and predict behaviors, which posits that behavioral intentions immediately determine behaviors and, under certain circumstances, perceived behavioral control (Kan & Fabrigar, 2017).

12. *The cognitive-anthropological cultural schema theory* – The cognitive-anthropological cultural schema theory assumes that individual behavior is motivated by both personal and cultural knowledge and experiences (Hass & Hutter, 2021).

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to explore the attitudes and comfort levels of general education and special education teachers' teaching of sex education to special education students. This chapter offers a review of the research on this topic. Prior research on the effectiveness of sexuality and HIV education programs has primarily focused on the curriculum, policy standards, and outcomes. However, few studies have focused on the critical components such as teacher preparedness or other characteristics of teachers relative to the actual instruction (Herr et al., 2012). The theory of planned behavior, the theory of cognitive-anthropological cultural schema, and the health belief model are discussed in the first section, followed by a review of recent literature on teachers' opinions on teaching sex education. Lastly, the literature concerns the importance of training preservice teachers for sex education. The lack of adequate teacher education potentially results in a lack of confidence in delivering a sex education curriculum (Burns & Hendriks, 2018). Finally, a gap in the literature is identified. There needs to be more research on how teachers' attitudes and comfort levels affect the teaching of sex education curricula to special needs students.

Theoretical Framework

The theoretical framework for this study includes the theory of planned behavior. The theory of planned behavior began as the theory of reasoned action and was intended to explain all behaviors in which people can exert self-control (Kam & Frabrigar, 2017). According to the theory of planned behavior, behavioral achievement depends on motivation and ability. The theory distinguishes between three types of beliefs: behavioral, normative, and control. The theory of planned behavior is broken down into six different areas that could represent a person's

actual control over their behavior, including behavioral beliefs, attitude towards the behavior, normative beliefs, subjective norm, control beliefs, and perceived behavioral control; these are all connected with the intention and the behavior (Kam & Fabrigar, 2017). “Intentions to perform various behaviors can be predicted with high accuracy from attitudes towards the behavior, subjective norms, and perceived behavioral control, and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior” (Ajzen, 1991). Icek Ajzen created an extension of the theory of behavior designed to predict and understand peoples' overt behaviors under volitional control (Kan & Fabrigar, 2017). According to Kan and Fabrigar (2017), any behavior can be conceptualized in terms of four components: action, the specific act performed by an individual, target, who or what the behavior is directed towards, context, in what situation does the behavior occur and time, when does the behavior occur.

Sexuality, an essential aspect of one’s personality and sense of self, offers a gateway to intimacy that includes feelings of comfort, security, support, love, and affection. For people with mental disabilities, expressions of sexuality can become controversial (Howard-Barr et al., 2005). According to Howard-Barr, people with mental disabilities learn most of their sexual knowledge and form their views about their sexuality from personal experiences, peer interactions, and their social circle. Because youth and adolescence are times of physical, emotional, and psychological development when decisions about relationship formation and sexual debut occur, it is viewed as a particularly salient period in which to address issues of sexuality (Smith & Harrison, 2013). Students in special education classrooms often do not have the same access to peers or social circles to gain information regarding their sexuality. The theory of planned behavior can help gain knowledge and insight into teachers' attitudes and

comfort levels when required to teach sex education to special needs students. Hack et al. (2019) applied the theory of planned behavior to sex educators' attitudes and intentions towards using sexually explicit materials. Their study investigated whether the key variables included in the theory of planned behavior would predict the intention of sex health professionals to use sexually explicit material during their sex education lessons, and if perceived behavioral control and subjective norms may also influence the intention to use the materials (Hack et al., 2019).

Public health services scientists developed the health belief model to focus the efforts of those who sought to improve public health by understanding why people failed to adopt a preventive health measure, the models' ability to explain and predict a variety of behaviors associated with positive health outcomes has been successfully replicated (Carpenter, 2010). The health belief model (Carpenter, 2010) was derived from psychological and behavioral theories with a foundation that two components of a health-related behavior are: the desire to avoid getting sick and the belief that a specific health action will prevent or cure the illness. The main downfall of the health belief model is the multiple limitations that it has placed on it. These limitations include not accounting for a person's attitudes, beliefs, or any other determinants that would dictate a person's acceptance of a behavior, habitual behaviors, or behaviors performed for non-health reasons such as social acceptance, environmental or economic factors. The model also assumes that everyone has the same access to equal information on an illness or disease and believes that their cues and actions encourage people to act and prioritize health (Carpenter, 2010). Rosenstock's seminal work on the HBM, the original goal of the researchers who developed the model was to focus the efforts of those who sought to improve public health by understanding why people failed to adopt a preventative health measure (Carpenter, 2010).

The health belief model specifies that an individual's perceptions of four variables can predict their behavior. The first variable the model argues is that people will be more motivated to act in a healthy way if they believe they are susceptible to a negative health outcome, so if they don't believe it will affect them, they will not work to prevent it (Carpenter, 2010). Secondly, the model predicts that the stronger the person's perception of the severity of the negative health outcome, the more they will be motivated to avoid the causes. Third, the individual must perceive that the newly target behavior will provide strong benefits. And finally, if people perceive there are strong barriers that prevent their adopting the preventative behavior, it is unlikely that they will do so (Carpenter, 2010).

Few studies have explored the specific nature of sexuality education for children with intellectual disabilities or respondents' attitudes toward offering a comprehensive sexual education curriculum (Howard-Barr et al., 2005). One focus of research should be to determine if or how teachers are trained to implement the most effective sex education curriculum for special education students. Multiple qualitative studies have been conducted to determine the impact of sex education training for teachers on their students' knowledge and perception of sex. However, only a few quantitative studies have been done on general education and special education teachers' different attitudes, opinions, and comfort levels. Special education programs focus on academic skills and differentiation, whereas general education teachers focus on the curriculum at hand and teaching to test.

In contrast, teachers trained in the proper curriculum in sex education could teach their students important and appropriate health concerns that can arise from things such as unsafe sex, as well as what is inappropriate for them to do but also for someone to do to them. In other words, it is essential to examine if special education teachers are trained on how to deliver sex

education curricula, and how the strategies they use to impact the importance of behavior and safe sex improve the knowledge and mindset of special education students about sex. Past studies have concentrated on teachers' behaviors and learning capabilities in the inclusive environment; therefore, a study on who is more comfortable teaching a sex education curriculum to special education students is vital in ensuring this population of students gets the appropriate instruction at their level of understanding. The health belief model is vital in understanding special needs' individuals and their sexual education. When they lack the social abilities to sort through fact and fiction, they run the risk of believing misinformation they receive from friends and other sources. They become what some call vulnerable because of their sexual behavior (Abbott et al., 2016).

Cultural schema theory aims to understand how individual reasoning is motivated by cultural schemas (Haas & Hutter, 2021). According to Haas and Hutter (2021), a schema is an internal conceptual structure that allows people to identify objects and events; a cultural schema aims to understand how an individual's reasoning is motivated by the cultural schema. In the event of teachers' and sex education, they will take their personal feelings and knowledge and use that to determine their comfort in what they teach. Cultural schemas are not fixed but dynamic; they will change due to added information, experiences, and knowledge based on their present constructions of the cultural meaning system (Haas & Hutter, 2021). Many myths and negative expectations concerning the sexual behavior of disabled children exist among parents, teachers, and members of society (Gaston, n.d.). Some believe that people with disabilities are asexual, sexually inactive, that they do not need sexual education and they cannot and should not have sexual relations (Rashikj-Canevska et al., 2023). All young people with disabilities are sexual beings and have the same right to enjoy their sexuality within the highest standards of

health, including safe sexual experiences, free from coercion and violence and have access to quality sex education and services for sexual and reproductive health (Rashikj-Canevska et al., 2023). According to Haas and Hutter (2021), research has indicated in the past that teachers can feel discomfort teaching sex education due to conflicts they feel regarding the comprehensive sex education programs and their perceived sociocultural and religious beliefs; in other words, teachers will only teach what they feel comfortable teaching.

Related Literature

Teachers' attitudes and comfort levels have always been the most significant test in determining the success of their students. The teacher's personality remains of primary importance. A teacher may have excellent knowledge of many subjects, and may have read many books, but the factor that has the most significant influence is the personality that emanates from the teacher (Timmerman, 2009). General education teachers in secondary schools generally focus on one subject. They are highly trained in their subject of choice and are fully prepared to teach the curriculum to their students. Special education teachers, while trained in teaching academics, are also taught about disabilities, behaviors, IEPs, behavior plans, and accommodations. A general education teacher's and special education teacher’s day-to-day life will look different. While a general education teacher tends to focus more strictly on the curriculum, a special education teacher will more commonly introduce their students to the curriculum with modifications and accommodations. In today’s education climate, the responsibility for teaching students with special needs no longer lies exclusively with special education teachers. With inclusion classrooms being considered the LRE, the general education classroom has been positioned as the optimal learning space, and teachers of all levels and content areas will be required to work with students who have special needs (Byrd & Alexander,

2020). With the enactment of the IDEA, students with disabilities are now more than ever mainstreamed into the general education classroom. Inclusion, while great for content and social exposure for special needs students, can encourage a struggle for both general and special education teachers.

Special Education

Special education services provided to children with special needs are described as "education maintained in appropriate environments by specially trained staff with specially trained staff with specially developed educational programs and methods to meet educational and social needs of individuals with special education needs based on their characteristics in all developmental areas and competencies in academic discipline areas" (Melekoglu, 2013). Internationally the concept of "special educational need" is being revised, the old was of seeing the psycho-medical paradigm has been replaced by the interactive paradigm (Avramidis et al., 2000). Individuals with intellectual disabilities have many challenges in their life one of which is about their sexual life, however their sexual rights are usually forgotten and approached with ignore their needs for sexual knowledge and emotions. This situation caused their sexual behaviors and practices to be conceptualized deviant and accepted as abnormal and people have myths about sexuality of the individuals with ID (Gokgoz et al., 2021).Adolescents with an intellectual disability may need help in issues such as hygiene and behavior control due to changing hormones that respond to sexual development, at the same time these children are unable to share with their family or peers their knowledge and experiences in context of sexual development and the difficulties they may experience controlling their sexual behaviors (Kurtuncu & Kurt, 2020). Discussion of sexual rights in the context of a disability is an often neglected and underdeveloped terrain within the human rights discourse; it becomes taboo to

discuss the sexual health and reproductive rights of adolescents living with disabilities (Khau, 2022). According to Khau (2022), this group of adolescents is often constructed as being sexually innocent, asexual, or lacking sexual agency, thus denying their sexual autonomy or believing that adolescents living with disabilities are constructed as hypersexual, which puts them at risk of sexual exploitation and harm. Professional attitudes may act to facilitate or constrain the implementation of policies which may be considered radical or controversial, for the success of innovative and challenging programs must surely depend on the cooperation and commitment of those most directly involved, such as educators (Avramidis et al., 2000). IDEA precisely that children with disabilities should be included in general education settings and that special education teachers should work in inclusive ways to improve opportunities and outcomes, yet obstacles remain for implementing quality special education instruction, services, and approaches, and there are gaps in outcomes for students with disabilities (Woulfin & Jones, 2021). Since the enactment of IDEA in 1975, along with its subsequent revisions and amendments, the percentage of children with disabilities receiving an inclusive education in schools has risen from 20% in 1970 to 95% in 2011 (Barnard-Brak et al., 2014). The issues of patterns for students that do and do not receive sex education thus merits much attention, considering the increase proportion of children with ID in the public school system (Barnard-Brak et al., 2014). All individuals, regardless of whether they have a disability, have a desire to express their sexuality in private and in public if it is appropriate and their sexual needs without being abused or exploited (Sravanti & Pradeep, 2021). The International Planned Parenthood Federation points out that there is no single definition of comprehensive sex education. They explain it as a holistic, developmentally, age appropriate, culturally and contextually relevant, scientifically accurate process, grounded in a vision of human rights, gender equality, positivism

towards sex relationships that encourage children to understand their rights, make decisions regarding their health and increase the abilities of young people to engage in equal, happy, healthy, fulfilling, and consensual relationships (Rashikj-Canevska et al., 2023). With comprehensive sex education not being a part of a school district's curriculum, students could be potentially set up for failure in their social life and future love life. People with intellectual disabilities have the same sexual needs and desires as people without disabilities. Research has revealed that people with I.D. lack opportunities for an informal exchange of information with peers, or even a social life, and the opportunity to develop romantic relationships like their peers because they have limited social network and autonomy and experience more time under the supervision of family members or caretakers (Lam et al., 2021). A student with disabilities may be served in a general education classroom or a self-contained classroom. Each classroom level will provide a different social learning experience for all students. Typically, students in a self-contained classroom do not have as much exposure to peers' education, which can limit proper sexual and social knowledge. Children with disabilities experience higher rates of mental, emotional, physical, and sexual abuse than those without disabilities (Taylor & Abernathy, 2022). In relation to sexuality, on one hand, disabled individuals may have different sexual access needs depending on their impairment, and on the other hand, disabled people regardless of impairment, often experience being seen as non-sexual and less attractive by mainstream society, largely due to not being ‘fit’, ‘healthy’ and ‘independent’ by normative standards (Bahner, 2018). The lack of knowledge about sexuality with persons with disabilities can put them at a higher risk of sexual violence; children with disabilities are three to four times more likely to be abused than their peers without disabilities. The risk of not teaching what is appropriate can also lead to STDs, unwanted pregnancies, and even getting in trouble for not understanding private

versus public or not understanding what is acceptable when touching or being touched. According to Shapiro (2018), a yearlong investigation found that people with intellectual disabilities are among the most at-risk groups in America for sexual assault or sexual harassment. A previous study from 2009 found that 11% of abused children had a behavioral, cognitive, or physical disability; letting the children know what is appropriate to touch and what is inappropriate is essential for safety (Henley, 2017). With all the previous studies on the importance of sex education for students with disabilities, there is not a focus on the importance of sex knowledge not only in an in-person situation but also for internet safety. The internet has predators that prey on children, but some likely predators focus solely on children with disabilities and are ready to take advantage.

Inclusive education has increased over the last decade as students with disabilities are now included more in general education classrooms as part of their daily educational routine, allowing them to develop academically and socially (Puliatte et al., 2021). According to Puliatte et al. (2021), inclusion, or inclusive education, refers to providing all learners in the classroom access to the general education curriculum. The general education curriculum includes sex education as part of their health class. Inclusion classes will look different depending on the class itself. An inclusion classroom requires the general education and the special education teacher to work together to accommodate all students' needs in the classroom. Within inclusive education, students with special educational needs presenting social and/or emotional problems are psychologically and professionally demanding for teachers (Schwab et al., 2019). Teachers' belief systems about the inclusion of students with special needs may explain gaps between policy and practice; research in this field has produced contradictory findings, resulting in a

sparse understanding of why teachers differ in their belief systems and how teachers' training experiences contribute to their development (Dignath et al., 2022).

Sex Education

Ongoing and sometimes rancorous policy debates at the federal, state, and local school district levels focus on the relative merits of sex education that teaches abstinence only until marriage versus approaches that include instruction on contraception and protection against STDs for student who do become sexually active (Constantine et al., 2007). Sex education is a lifelong process of building a solid foundation for sexual health through acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy (Halder, 2020). Sexuality education is described as education about human sexuality anatomy, reproduction, intercourse, reproductive health, emotional relations, reproductive rights and responsibilities, abstinence, contraception, family planning, body image, sexual orientation, sexual pleasure, values, decision making, communication, dating relationships, sexually transmitted infections (STI's) and how to avoid them, and birth control methods (Zaw et al., 2021). A successful sexuality and HIV/AIDS education program must begin with an understanding of the necessary educator characteristics as a prelude to identifying where the levers of change may lie (Francis & DePalma, 2015).

Sexual education has become taboo, especially where parents of students with disabilities are involved. Perceptions surrounding the sexualities of learners with disabilities are constructed in the light of dominant socio-medical discourses that generally construct people with physical or sensory disabilities as non-sexual and lacking physical capabilities of having intimate relationships, conversely, those with intellectual disabilities or psycho-social disabilities are often infantilized or deemed oversexed and unable to control their sexual desires (Chappell et

al., 2018). Comprehensive sex education describes cognitive, social, emotional, and physical developments in a holistic manner that values bodily autonomy, diversity, evidence-based instruction, reproductive health, and respect for differences (Davies et al., 2022). Sexual health education aims to teach students about a wide range of issues, including personal hygiene, puberty, childbirth, sexual anatomy, healthy sexual behavior, interpersonal relationships, consent, self-respect, respect for others, and family life, with the actual content provided varying (Zhuravleva & Helmer, 2023). Quality sex education is important for all students, it also helps with a successful transition to life after high school. Students with intellectual disabilities often do not receive holistic sex education which is critical for their successful transition to post school life (Strnadova et al., 2022). Strnadova et al., (2022) found in a study two main themes when studying teen girls with an intellectual disability: experiences with and preferences for sex education was number one and plans regarding relationships and family planning came in as second.

Sexual education classes have changed over the last few decades. It is now an abstinence-based curriculum rather than a comprehensive based. Abstinence-only sexuality education focuses on teaching young people that abstaining from sex until marriage is the best option to avoid STIs, HIV and unwanted pregnancy while comprehensive and preventative methods against STIs and HIV and how to use them, the proponents of abstinence only education claim that comprehensive sexuality education encourages young people to initiate sexual intercourse at an early age thus leading to teenage pregnancy (Zaw et al., 2019). A previous literature review on sexuality curriculum for individuals with I.D. found that biological and reproductive health topics were covered extensively, while self-advocacy and self-protections were neglected (Strnadova et al., 2022). Previous research has highlighted how comprehensive sexuality

education has a stronger positive influence on the sexual behavior of young people than abstinence only programs (Bittner & Meisert, 2021). Zaw et al, (2019) on the other hand, proponents of comprehensive sexuality education question whether it is realistic to encourage abstinence until marriage, claiming that lack of information on use of condoms and other contraceptives increases risky behavior and rates of teenage pregnancy, while comprehensive sex education has shown to encourage students to adopt healthy behaviors. The phrase "comprehensive sex education" is commonly used in policy debates and by the media to distinguish approaches that cover contraception and protections from those that strategically omit these topics, when in reality it is composed of three components: it provides complete, accurate, positive and developmentally appropriate information on human sexuality including the risk reduction strategies of abstinence, contraception and STD protection, it promotes the development of relevant personal and interpersonal skills, and it includes parents or caregivers as partners with the teachers (Constantine et al., 2007). While the benefits of comprehensive sexuality education are clear, restrictions are often placed on content, limiting the comprehensive nature of what is taught in many schools; many secondary students reach a level of maturity at which pregnancy and childbirth become possible so content such as fertilization and pregnancy is paramount (Sato et al., 2022). The lack of a comprehensive curriculum has not affected the general school populations, as these students can learn their sexual socialization through community norms, peer interactions, and consuming mass media (Shtarkshall et al., 2007). With the focus being abstinence-based, students with special needs are not receiving the sex education they deserve and are also not being exposed to proper sex socialization. Individuals with ASD want social and romantic relationships but commonly experience social barriers due to social isolation and stigmatization. The unique needs that children with ASD may experience relative to

navigating relationships are social reciprocity, sensory issues, and consent (Davies et al., 2022). Given that social reciprocity is an important relationship skill, instruction focusing on knowledge and skill building is imperative. These skills will break down how to initiate friendships, how to read social cues, how to flirt, initiating and establishing boundaries within relationships and discussions around sexual consent (Davies et al., 2022). Strnadova et al. (2022), stated that when the topics in an abstinence-based program were taught, studies suggested that the information provided was either superficial or not retained, because the education students were receiving lacked depth or was too complex. Additionally, the lack of suitable social role models added to the challenge of understanding what socially appropriate behavior is and what is private behavior. A study by Stein et al. (2018) showed that some parents of children with disabilities believe their children's sexuality is dormant but exposing them to sex education will awaken it. This fear and the belief that children with a disability are asexual has limited the sex education they are receiving at home as well (Stein et al., 2018).

Sex education is essential as it equips individuals with the knowledge to live independent and safe sex lives (Bloor et al., 2022). Sex education or sexuality are terms that only encompass intercourse or other sexual behavior; these topics have comprehensive definitions (Galindo, 2022). According to Galindo (2022), comprehensive sex education includes the circles of sexuality, which include: sexual health and reproduction, sexual identity, intimacy, sensuality, sexualization, and values. The sexual health and reproduction circle includes attitudes and behaviors and the potential consequences such as pregnancy; the sexual identity circle is the development of the sense of who one is; intimacy includes understanding the need for emotional closeness, sensuality includes an awareness, acceptance, and comfort of ones' own body and respecting the body of others, and sensuality includes awareness of the use of sexuality to

influence, control or manipulate others (Galindo, 2022). A comprehensive sex education curriculum will allow special education learners to understand what is appropriate for themselves and others at their ability level. According to Online MSW programs (n.d.), only 30 states in the United States mandate sex education to be taught in public schools, and only twenty-two of those states require the curriculum to be medically accurate. Creating an inclusive sex education program will support the teachers' ability to properly teach the curriculum and provide educators with the necessary knowledge regarding the risks associated with students with disabilities (Peris, 2020).

Providing sex education for people with disabilities often causes ambivalence, the need for sex education is recognized but it often creates anxiety concerning the potential to causes harm or inappropriate sexual behavior (Lofgren-Martenson & Ouis, 2019). Sexual curiosity is a normal part of adolescence and young people's development, and the internet offers the possibility to search for information and images privately and discreetly (Hack et al., 2019). According to Hack et al. (2019), the quality and adequacy of the information on sexuality offered online is often questionable, misleading, or inaccurate and may lead to unrealistic attitudes or expectations or often destructive behaviors and more aggressive sexual behavior. All individuals, regardless of whether they have a disability, have a desire to express their sexuality in private and in public if it is appropriate and their fill sexual needs without being abused or exploited (Sravanti & Pradeep, 2021). With comprehensive sex education not being a part of a school district's curriculum, students could be potentially set up for failure in their social life and future love life. Typically, students in a self-contained classroom do not have as much exposure to peers' education, which can limit proper sexual and social knowledge. Children with disabilities experience higher rates of mental, emotional, physical, and sexual abuse than those without

disabilities (Taylor & Abernathy, 2022). The lack of knowledge about sexuality with persons with disabilities can put them at a higher risk of sexual violence; children with disabilities are three to four times more likely to be abused than their peers without disabilities. The risk of not teaching what is appropriate can also lead to STDs, unwanted pregnancies, and even getting in trouble for not understanding private versus public or not understanding what is acceptable when touching or being touched. According to Shapiro (2018), a yearlong investigation found that people with intellectual disabilities are among the most at-risk groups in America for sexual assault or sexual harassment. A previous study from 2009 found that 11% of abused children had a behavioral, cognitive, or physical disability; letting the children know what is appropriate to touch and what is inappropriate is essential for safety (Henley, 2017). Concerns have been expressed about the physical, mental, and social health related behaviors of youth that impact their education. Teenage behaviors such as sexual promiscuity, substance abuse and violence often lead to student underachievement (Hamilton & Gingiss, 1993). Hamilton & Gingiss (1993) have found that human sexuality education provides a prototype for examining the level of influence of a teacher's prior experience and preparation on their performance, teachers attitude about teaching sexuality are significantly related to the nature of the instruction they provide. If children with learning disabilities or special needs are at greater risk for contracting STIs, then understanding the risk behaviors and risk reduction needs of this group is critical (Mandell et al., 2008).

Teachers' Attitudes and Comfort Levels

Teacher perceptions of sex education for children with ID are of interest based on the Pygmalion effect, a term describing the effects of interpersonal expectations (Barnard-Brak, 2014). As demonstrated in previous research higher expectations from the teacher enhance

students' learning because the teacher tends to create a warmer socioemotional climate, teach more material, give greater opportunities for responding and provide more differentiated feedback, teachers have been found to be unprepared to handle sexuality issues with students with disabilities (Barnard-Brak, 2014). Although various studies have described the cultural and religious barriers teachers may encounter when teaching sex and sexuality, few have focused on the attitudes and comfort levels of general and special education teachers when teaching special needs students. In a study conducted by Strnadova et al. (2022), only 25% of all special education teachers involved believed that students with moderate to profound intellectual disability would gain something valuable from a comprehensive sex education curriculum, while 68% of teachers in the study believed that students with mild intellectual disabilities would benefit from sex education and 60% of teachers thought that students without ID would benefit from sex education. Sex "talk" is an uncomfortable subject when discussed in education. While there are sex education curriculums required in the United States, the subjects may vary from state to state. Teachers' and administrators' solid opinions and sense of moral authority regarding young people's sexuality dominate the formal and informal discourses about sexuality within the schools and may impede the delivery of school-based sexuality education and HIV prevention curricula (Smith & Harrison, 2013). Literature indicates that teachers often report they are poorly trained in teaching sex education programs and are unable to answer questions that may be raised in class, while their level of knowledge about sex education can have a positive influence on the education and support provided (Ionescu et at., 2019). While little is known about teachers' perceptions and attitudes towards the implementation of sex education, there is research identifying differences in teachers' attitudes and comfort towards sex education based on their gender, age, ethnicity, school district, and school location (Zhuravlevan & Helmer, 2023).

Teachers from previous research have reported being selective about comprehensive sex education material they taught and what they have left out; the teachers believed that some of the information in the curriculum would be counterproductive (Zulu et al., 2019). A study by Nelson et al., (2020) found that teachers believed there was an importance in working with disability awareness, and it would be a critical component on sexual education, and the teachers believed there was a stigma directed towards disabilities that some students may try to hide from their own disability when interacting with society. By conforming to these social standards, teachers believed that students would suffer consequences from not understanding their own sexuality (Nelson et al., 2020).

General Education Teachers

General education teachers' attitudes and comfort levels in teaching special education students will vary by subject. The landscape of the classroom is changing, the spaces now consist of an ever-increasing body of students with special needs, ranging from learning and/or behavioral challenges and sometimes with linguistically and culturally varied backgrounds (Byrd & Alexander, 2020). With the inclusion of students with a disability in their classroom, general education teachers may have to learn how to adjust their curriculum to accommodate all students. Previous research has shown that teachers' attitudes and skills related to sex education may prevent them from delivering all topics included in the curriculum. Some teachers believe that students with a disability have limited capacity to understand sex education, so the teachers do not provide the details (Strnadova et al., 2022). According to Strnadova et al. (2022), teachers also believed that they were not provided the proper number of tools, resources, and skills needed to deliver an extensive and accessible sex education program needed for students with disabilities. Lack of time is a major barrier to teaching sexual health lessons, and several health

educators mentioned needing more time to complete the lessons and activities (Rose et al., 2018). Preparing teachers for working with students in their LRE is critical, as it is one of the few offerings that provide key information on managing student behavior, assessments, and professional interaction expectations (Byrd & Alexander, 2020). A previous study by Goli et al. (2022) showed that some instructors and educators oppose sexual education for students with disabilities because it may cause them to be more irresponsible and uncontrolled. Teachers' restrictive attitudes towards discussing sexual issues with students with special needs is unnecessary and risky and could limit their performance and decrease their motivation to acquire skills. Health education teachers often feel uncomfortable teaching sexuality education and answering students' questions about sexual health and sexual health behavior. When used effectively, sexuality education is an important academic part of the health education curriculum that helps secondary students develop a positive view of sexuality and aids them in understanding and decision making with respect to sexual health (Sato et al., 2022). The same study showed teachers believing that the most common sexual behaviors in adolescents with disabilities take place in public places, including school, are masturbation, showing their genitals, and showing body parts to other teachers and do not have enough skills and knowledge to deal with these behaviors properly (Goli et al., 2022).

A research article by Khau (2022) indicated that teachers resorted to their comfort zones when designing their lesson plans in line with their socialization, but their understandings and perceptions of using assistive technology devices to teach sex education were challenged and deconstructed through their engagement in theatre-in education processes, which highlighted the importance of engaged scholarship in deconstructing harmful norms towards transformative pedagogies. Some mainstream comprehensive sex education teachers employ a pedagogy of

discomfort, in which they are culturally and religiously conflicted and embarrassed to teach the curriculum itself (Khau, 2022).

While the main issue from previous research regarding teaching sex education to students with disabilities is their comfort level with the curriculum itself, there is also an abundance of research regarding the lack of proper training in teaching the materials. In a previous study by Keogh et al. (2021), inadequate teacher training remained a significant hurdle to practical implementation, manifesting in teacher discomfort and inaccurate messaging. Lack of adequate teacher education results in sex education which often focuses on biological aspects instead of social and emotional topics (Burns & Hendriks, 2018). Students with disabilities cannot always learn social and emotional behaviors independently. They may not have the skills to pick up on social cues as their peers would. Reviewing previous research, developing sex education training at schools is not always an easy matter; there is fear and anxiety about talking about sexual issues; it has shown that most teachers consider sexuality only from a biological point of view and not in a social context (Goli et al., 2022). The teachers' attitudes responsible for the lessons must first be evaluated before sex education training to determine if their comfort level will influence their ability to handle the curriculum. In a study conducted by Iva Strnadova (2021) regarding teachers' experiences with sex education for students with a disability, it was found that despite acknowledging that sex education was important for students with disabilities, teachers lacked confidence in delivering the curriculum. Teachers involved in sexuality education are confronted by ambivalences such as protecting individual privacy while promoting openness or warning of dangers such as unwanted pregnancy or sexually transmitted diseases while simultaneously conveying a positive view of sexuality (Bittner & Meisert, 2021). Some teachers believed that students with disabilities had a limited capacity to understand sex

education, so the details were left out, however some of the teachers believed that sex education would benefit the students (Strnadova et al., 2021). Teachers may not always possess the appropriate level of knowledge, primarily due to a lack of training programs; the teachers often report that they are poorly trained in teaching sex education and feel unable to answer questions that may arise in class (Ionescu et al., 2019). The discomfort that teachers may experience in teaching sex education to children with disabilities may impact the children's education. Previous findings suggest that to support professional growth and development among health educators teaching sexuality education, and to advance the quality of sexuality education instruction and learning outcomes, a clearer focus on the status, quality, and relevance of this work among teachers, administrators and researchers is needed (Sato et al., 2022).

Special Education Teachers

The role of a special education teacher demands effort and time and even involves emotional and cognitive ability; they need specific skills and expertise to fulfill and overcome problems faced by their pupils (Shuib et al., 2022). Special education teachers engage in complex work while implementing education policies and integrating students with disabilities (Woulfin & Jones, 2021). Students with disabilities are often hypersexual and do not have the means to know when and where it is appropriate. Preservice special education teachers are introduced to disabilities, behavior disorders, and potential medical issues that may be seen in their classrooms. IDEA specifies that children with disabilities should be included in general education settings and that special education teachers should work in inclusive ways to improve opportunities and outcomes, yet obstacles remain for implementing quality special education instruction, services, and approaches, and there are pervasive gaps in outcomes for students with disabilities (Woulfin & Jones, 2021). Special educators face increasing or large caseloads, lack

of clarity in their roles, lack of administrative support, excessive paperwork, feelings of isolation and loneliness, and minimal collaboration with colleagues (Cancio et al., 2018). Special education teachers are educated on situations that they may encounter in the classroom, they read about behaviors and disabilities, they learn about testing that is used to help determine a disability category, they learn ways to differentiate the instruction, but they are not trained in handling the sexual acts of students with disabilities that they may encounter. When a student is not properly taught what is appropriate or socially acceptable in a school setting, they are not going to know. Students with autism spectrum disorder typically learn from visuals such as picture cards and social stories. An abstinence-based sex education curriculum will not provide students with ASD the proper tools to understand something as simple as what acts are private and what are public. With the incorporation of a comprehensive based sex education curriculum, and the proper visuals to accompany it, students on the spectrum and students with other disabilities can be equipped for post school life. Leaving young people uninformed makes them vulnerable to coercion and poor decision making (Zhuravleva & Helmer, 2022).

Regarding sex education, special education teachers have reported feeling anxious or ambivalent and a lack of clarity regarding their role and responsibility (Borawska-Charko et al., 2023). In a previous study by Borawska-Charko et al. (2023), three main themes were identified regarding student behaviors and delivering sex and relationships education to students with disabilities. First, they found there are challenges and difficulties in teaching sex education; some teachers knew their students lacked interest because they had no previous knowledge. Some students showed socially inappropriate behavior because the students showed extremely sexualized behavior because of the severity of their disability, black and white thinking, experiences of sexual abuse, cognitive abilities, emotions, negative parental attitudes, anxiety,

and some struggled with their students understanding the words that were being used. Another central theme in the study by Borawska-Charko et al. (2023) was overcoming difficulties with the instruction, having a lack of general tools and techniques to teach a sex education curriculum to their students, and how to adapt the tools to each learner. The teachers in the study summarized the importance of safeguarding, teaching internet safety, knowing what is right and wrong, how to make your own choices, and teaching students social and life skills (Borawska-Charko et al., 2023). Special education teachers are accustomed to modifying assignments to fit each student's needs and understanding their ever-changing role in the classroom. There is a lack of training for special education teachers in teaching sex education to special needs students. Inappropriate behaviors are more likely to happen in a special education setting. With proper training, these behaviors would be addressed, and the student could identify why it is inappropriate and understand the proper time and place. Little research has been conducted on special education teachers' attitudes and comfort levels regarding teaching sex education to their students. The focus falls on social and living skills. In a study conducted by Gerchenovitch & Rusu (2019), it was determined that there is a lack of training for a sex education program for special needs students and that training in the preservice stages would benefit the teacher and the student. The research also showed that preservice teachers who participated in sex education training increased their knowledge of topics relevant to a program and were more prepared to deliver the curriculum (Gershenovitch & Rusu, 2019).

Parental Effects on Sex Education

Studies have shown that parental attitudes are highly significant predictors of the sexual and emotional functioning of a person with disabilities (Rashikj-Canevska et al., 2023). Sexuality is a normal, expected part of life. In previous studies, Srvanti (2021) stated that parents

expected puberty at a certain age. Parents' integration of sexual socialization begins early in their children's life. There are some parents who object to public school sexuality education programs and claim providing sex education is a parental right that does not belong to schools, while a greater majority continue to see the subject as shameful and a topic only required by adults (Zhuravleva & Helmer, 2023). Parents will teach their children about nudity and modesty. However, the results of a study by Stein (2018) show that mothers were more reluctant to start conversations about sex when their children had disabilities and were less detailed regarding what is taught versus students without disabilities. Some mothers of children with ID had their own poor understandings regarding sexuality and they viewed sexuality primarily through the lens of sexual encounters and intimate relationships that they have had (Kamaluding et al., 2022). A student with a disability such as autism may not understand clues from their parents; this is where a comprehensive sexual education curriculum would come in. There is a need to enable young people with ID about how to express their sexuality and how to form interpersonal relationships. Educating parents about sexual health needs should be given as much importance as educating them about self-help-skills and adaptive functioning (Sravanti & Pradeep, 2021).

Mothers expressed that they try to retain control over their children’s sexual behaviors, as they worry their children could express sexual desires towards inappropriate people such as an elderly person or relatives. They also indicated that they sometimes remove their children from a social environment, or they protect their children through constant monitoring and control (Gokgoz et al., 2021). Top (2022) concluded that mothers did not have sufficient knowledge of the sexual developmental characteristics of their adolescent children with ID, and they were unable to recognize the sexual developments, changes, and behaviors of their children. Some parents believe their children are a-sexual because of their disability or belief that teaching sex

education will awaken their sexuality; some students with disabilities are not given any social cues to know proper sex etiquette (Stein et al., 2018; Taylor & Abernathy, 2022).

An online survey tool created by Qualtrics compiled 31 questions for parents to answer regarding their child's sex life or potential sex life and what education they would prefer (Stein et al., 2018). Stein noted that most parents approved of a form of sex education for their children and have noticed the physiological changes puberty has caused in their children. The readings show multiple times where research has determined if parents believe their child need or are receiving a sex education class. However, it is not clear whether they feel their child needs a socialization sex education curriculum that would guide them to the appropriateness and to build their knowledge to help guide them to knowing what consent would look like. Kurtuncu & Kurt's (2020) study concluded that mothers of children with intellectual disabilities had a low level of knowledge regarding the sexual development of their children, and they experience problems with managing their children's behaviors and needed education in these areas. Among the main concerns of families of children with ID were the personal hygiene of their children, their outward sexual behaviors and their low level or lack of awareness regarding strangers. They believed that providing training on sexual development for both the child with ID and the parents would facilitate the management of the issues (Kurtuncu & Kurt, 2020).

Lack of Knowledge and Abuse

In 1998 in Canada, section 153. (1) of the Criminal Code was added to explicitly criminalize the sexual exploitation of persons with a disability. This act prohibited including sexual acts against a disabled person include directly or indirectly touching, inciting, or counseling a victim to touch their own body, the perpetrators' or someone else's, and includes all forms of mental or physical disabilities (Peris, 2020). To comprehend the abstract concept of

sexuality, one must first understand appropriate interpersonal interactions and social boundaries that are consistent with current cultural values and personal beliefs. These concepts will foster the development of healthy intimate relationships and minimize the potential for exploitation and sexual abuse (Faught et al., 2020). All individuals, regardless of whether they have a disability, have a desire to express their sexuality in private and in public if it is appropriate and their sexual needs without being abused or exploited (Sravanti & Pradeep, 2021). With comprehensive sex education not being a part of a school district's curriculum, students could be potentially set up for failure in their social life and future love life.

A student with disabilities may be served in a general education classroom or a self-contained classroom. Each classroom level will provide a different social learning experience for all students. Typically, students in a self-contained classroom do not have as much exposure to peers' education, which can limit proper sexual and social knowledge. Children with disabilities experience higher rates of mental, emotional, physical, and sexual abuse than those without disabilities (Taylor & Abernathy, 2022). Previous research conducted by Brown et al. (2017) reflected that adults with ASD might be at increased risk for sexual victimization due to their limited sexual knowledge and experiences as well as challenges in social situations. Wos et al., (2021) expressed that people with Intellectual Disabilities experience resistance from their loved ones when exercising their sexual rights. They are unable to discuss topics related to their sexuality, they are more likely to have a lack of privacy, restrictive institutional regulations, overprotectiveness, and lack of sex education, by limiting these things it also deprives them of their right to self-realization.

The lack of knowledge about sexuality with persons with disabilities can put them at a higher risk of sexual violence; children with disabilities are three to four times more likely to be

abused than their peers without disabilities (Sravanti & Pradeep, 2021; Taylor & Abernathy, 2022). The risk of not teaching what is appropriate can also lead to STDs, unwanted pregnancies, and even getting in trouble for not understanding private versus public or not understanding what is acceptable when touching or being touched. Having access to a sex education program that includes topics such as appropriate sexual behavior and sexual socialization could also be useful for students with autism who tend to experience issues with sexual behavior, knowledge and self-esteem as well as limited awareness of private and public body parts, personal boundaries and safety (Strnadova et al., 2022). According to Shapiro (2018)a yearlong investigation found that people with intellectual disabilities are among the most at-risk groups in America for sexual assault or sexual harassment. A previous study from 2009 found that 11% of abused children had a behavioral, cognitive, or physical disability.

Teaching children to know what is appropriate to touch and what is inappropriate is essential for safety (Henley, 2017). Comparative studies from the UK have noted that people with ID have a lower level of sexual knowledge than peers from the general population, also that people with ID are less likely to engage in sexual activity than their peers in the 19-20 age group; once they have engaged in sexual activity, they are more likely to engage in dangerous sex than people in the general population and girls with ID are more likely to become pregnant (Wos et al., 2021). Medina-Rico et al. (2018) addressed that people with ID have a higher autoerotic behavior compared to the general population and described the knowledge that people with ID have regarding laws, finding that less than half know about laws against sexual abuse, only half know about the minimum age for consent in a sexual relationship, and only a third know that they have equal freedom to marry.

The use of social justice and rights-based frameworks in designing and teaching topics related to sexuality and sexual health has increased over the past several years and has been advocated by leading sexual health organizations. A social justice lens uses the concepts of human rights and equality through which to challenge power, privilege, and structural and systemic discrimination of marginalized communities (Goldfarb & Lieberman, 2020). Proper understanding of social boundaries not only fosters the development of healthy intimate relationships, but also minimizes the potential for exploitation and sexual abuse (Faught et al., 2020). A study conducted by Goldfarb & Lieberman (2020) expressed that strong evaluations demonstrate a range of positive outcomes for programs that focus on prevention of dating violence (DV) and intimate partner violence (IPV) among youth. School-based efforts have the potential to play a key role in reducing DV and in many cases have shown positive long-term outcomes. The purpose of a comprehensive based sex education curriculum is not only to discuss sexual matters but to increase their knowledge, change their attitudes and improve their skills to reduce dating violence and intimate partner violence (Goldfarb & Lieberman, 2020).

With all the previous studies on the importance of sex education for students with disabilities, there is not a focus on the importance of sex knowledge not only in an in-person situation but also for internet safety. Sexual curiosity is a normal part of adolescence and young people's development, and the internet offers the possibility to search for information and images in a private and discreet way. However, the quality and the adequacy of the information on sexuality that is offered on the internet is often questionable, misleading, or inaccurate (Hack et al., 2019). The internet has predators that prey on children, but some likely predators focus solely on children with disabilities and are ready to take advantage. People with disabilities have a higher chance of being bullied or threatened in a real-life situation. While the internet can be a

learning tool, it can also lead to a broader spectrum of bullying. It cannot be ignored that some perpetrators use the internet as a tool to target, abuse and exploit others, including those with intellectual disabilities (Hebblewhite et al., 2022). In interviews conducted by Heitplatz et al., (2022) people with ID were unable to identify the risks such as being bullied, threatened, or harassed online. The lack of appropriate social skills and the ability to read social cues not only affects people with disabilities in a real life setting but also online. In today's fast-growing and rapidly evolving digital environment where reality is increasingly being given the prefix virtual, the aspect of information security is becoming imperative in all areas of human action affected by digital technology (Luic et al., 2021). Results in research conducted by Luic et al., (2021) it showed that some students practice behaviors that are potentially dangerous, making them vulnerable and easy targets of cyber predators and attackers, which is why there is cause for concern for students.

It is no secret that internet usage is popular amongst teenagers, and one could argue that usage is high amongst those with autism spectrum disorder or other disabilities. Research has demonstrated growth in smartphone and tablet use amongst people with disabilities, but with this comes complex issues around balancing the right to make choices with concerns about vulnerability and safety (Caton & Landman, 2020). Online grooming is commonly associated with sexual predators but the same pattern of intentional development of emotional links to gain trust has been seen in grooming. People with disabilities may agree to engage in socially risky behavior due to difficulties differentiating between fact and untrustworthy information found online (Caton & Landman, 2020). Reports in previous literature characterize the online grooming process in five stages. The first stage is identifying the victim, allowing them to gain information to carry out the abuse. The second stage is building trust with the victim. Third is assessing the

risk, the perpetrator will aim to ensure that what will be done will not be disclosed by the victim. In the fourth stage, the perpetrator encourages the adolescent to keep the relationship a secret and in the fifth stage, the perpetrator will carry out the abuse (Katz et al., 2021). Incorporating a comprehensive sex education curriculum will allow the students with disabilities to learn potential dangers of using the internet and give them the tools needed to decipher what is real and what could potentially be a dangerous situation. Comprehensive sex education is more than just sex education; it involves life skills, social skills and tools needed for a safe future.

Summary

Sexuality is not our choice; it is a natural part of all lives, it is a human right, regardless of gender, age, sexual orientation, or disability, as confirmed by the Declaration of Sexual Rights. According to this legal act, everyone has the right to sex education which supports the development of sexuality (Wos et al., 2021). Sexual education classes have been a part of America's school system for many years. Its focus has shifted from a comprehensive curriculum to a more abstinence-focused curriculum. Only 30 states in the US mandate sex education to be taught in public schools, while only 22 of those states require the curriculum to be medically accurate (*Advocating for Inclusive Sex*, n.d.). In the United States, there are no established training programs for teachers on sexuality education; previous research has shown that across the states only 41% of health education teachers had professional preparation in health/physical education and health education, and only one third of those teachers had received training in pregnancy prevention, HIV prevention and STD prevention (Perez et al., 2004).

There is growing awareness and international commitment to improving sexual and reproductive health for persons with intellectual disabilities. Despite this, people with ID continue to face stigma and have limited access to sexual health information and education

(Nelson et al., 2020). Since IDEA came into effect in America's school systems, an alternative sex education curriculum for special needs students have not been implemented in most school systems because it is not federally enforced. There are instructional strategies but are not readily available to educators who want to include a comprehensive sex education curriculum, and training is not usually an option. According to research, general education teachers' attitudes and comfort levels fall into the same categories, with discomfort and lack of training being unanimous in most studies. There is a gap in research regarding how special education teachers feel regarding the sex education curriculum. Students with special needs are affected by their lack of sexual knowledge. Children with disabilities are among the highest population who suffer from physical and sexual abuse (CANVAS Arts Action Programs, 2020). Several barriers regarding sex education for this group of students have been identified but the availability is limited, and little is known about strategies and practices that would be effective for teaching in this area (Strnadova et al., 2022). In cases where sexual health education needed by adolescents cannot be provided, risks including sexual abuse, sexually transmitted diseases, low self-respect, social isolation, and a lower quality of life are known to increase. (Top, 2022). Identifying teachers' general attitudes towards sexuality, as well as their attitudes towards teaching sexual education is considered an optimal starting point for the implementation of intervention programs in the field of sexual health education for people with disabilities, as well as providing appropriate training for the teachers to provide an objective and accurate sex education to those in need (Ionescu et al., 2019).

Sexuality education helps prepare young people for life, especially for building and maintaining fulfilling relationships and contributes to their positive personal development and self-determination. The need for sex education has arisen due to several developmental stages in

the last decade because of the rapid spread of the internet and mobile phones, the emergence of HIV/AIDS, the growing concern about sexual abuse of children and the changing attitudes towards sexuality and changing sexual behavior among young people (Rashikj-Canevska, 2023).

CHAPTER THREE: METHODS

Overview

This quantitative, causal-comparative study aims to determine the differences between special education and general curriculum teachers' attitudes and comfort levels in having appropriate conversations to special education students. The instrument used for this study is the teachers' attitude and comfort scale (TACS). This chapter begins by introducing the study's design, including full definitions of all variables. The research questions and null hypothesis follow. The participants, setting, instrumentation, procedures, and data analysis plans are presented.

Design

This quantitative study used a causal-comparative research design to determine the difference in attitudes and comfort levels between general education and special education teachers in having appropriate conversations about sexuality to students with special needs. According to Gall et al. (2007), causal-comparative research seeks to identify cause and effect relationships by forming groups of individuals in whom the independent variable and determining whether the groups differ on the dependent variable. This study compared the attitudes and comfort levels of general education teachers and special education teachers about teaching of sex education to special education students. This design was appropriate because the independent variable, type of teacher, was not manipulated by the researcher (Gall et al., 2007). Similarly, Evan (2009) used a causal-comparative study to determine the perspectives of staff and family members concerning sexuality and personal relationships for people with an intellectual disability.

The dependent variables are the five factors of attitudes and comfort levels of teaching sex education to special education students. Factor one: teachers are concerned about curriculum implementation. Factor two: teacher comfort with the subject matter. Factor three: teacher interest about curriculum content. Factor four: regarding course-specific teacher attitudes, and factor five: teacher attitudes towards sexuality. The critical feature of a causal-comparative research study is that the independent variable is measured in the form of categories (Gall et al., 2007). The instrument uses a five-point Likert scale that ranges from strongly disagree =1, disagree =2, neutral=3, agree =4, and strongly agree=5. The combined possible score on the scale may range from 30-150; a score of 30 means that all sub-sections were highly disagreed, and a 150 will be highly agreed.

Research Question

The research question for this study is:

RQ1: What is the difference between the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special needs students?

Hypothesis

The null hypothesis for this study is:

$H_0$1: There is no difference in general and special education teachers' attitudes and comfort levels in having appropriate conversations with special needs students on TACS.

Participants and Setting

In this section, there will be a description of the population, the participants involved, the sampling technique, and the sample size. The population section will go into detail regarding where the participants were chosen from and the year of the study. The participant's section will detail the number of participants in the study and the grades the teachers teach. The setting

section will detail where the study took place and how the data was collected.

Population

The participants in this study were taken from a convenience sample of middle and high school general education and special education teachers. Based on the background evidence in previously studied articles, there is a need to improve the preparation of teachers in comprehensive sex education. This study will allow researchers to assess teachers' attitudes and comfort with sexuality education, so that school systems will be able to identify the attitudes and comfort levels before they address sexuality-related issues in the classrooms (Perez et al., 2004). Sexuality is a dominant trait in middle and high schools with both general education and special education students. Teachers of all academic areas would benefit from training in sexuality education to ensure the safety of their students and potential behaviors that could arise in their classrooms. Sex education comes in many forms and all aspects will not be written in a set curriculum. Sexual socialization occurs outside the home as children and adolescents observe community norms, consume mass media, and participate in cultural and religious activities (Shtarkshall et al., 2007). Since the enactment of IDEA, students with disabilities have had more opportunities to be served in the general education setting including classrooms, and lunchrooms. With the inclusion of students with disabilities into a general education setting, the likelihood that a general education teacher observes an inappropriate sexual situation, be it intentional or not, is higher. It is important to gather and value the opinions of both special education and general education teachers' attitudes and comfort levels in regard to sex education and students with disabilities, to better prepare the teachers for any inappropriate situations that can occur either in their classroom or where the general education population could be. Students with disabilities may or may not have the basic understandings of what is appropriate and what is not

appropriate, and it is only fair to the students that all their teachers to have an understanding and the ability to handle a potential situation with fairness.

All general education and special education middle and high school teachers were invited to participate in the study from multiple districts through an online social media survey. The participants were chosen at random via an IRB approved post on social media. If they agreed to participate, they filled out an online survey through Microsoft Office, granting permission to the researcher. The general education teachers were teachers of different subjects ranging from PE to AP classes, and the special education teachers will include co-teachers of different subjects and self-contained teachers.

Participants

All teachers from different school districts and of all subjects in grades 6-12 were invited to participate in the study through a social media postAccording to G*Power, when using a MANOVA test, or Hotelling's T^2, assuming a medium effect size and a statistical power of 0.8, the sample size required is 58. The sample will included 29 general education teachers and 42 special education teachers. The sample also included 59 females and 13 males: highest degree of 17 bachelor's degree, 53 graduate degrees, and one doctorate degree.

Within the special education teacher group, the sample included 41 females and 3 males. Fourteen held a highest degree of bachelor's; 30 more held graduate degrees; none held doctorate degrees. Within the general education teacher group, the sample included 17 females and 10 males; highest degree of four was bachelor's, 22 held graduate degrees, and one held a doctorate.

Setting

The study was conducted online through a social media platform. The social media post was IRB approved (please see Appendix D for post). The study is focused on the teachers at the

middle and high school levels only. The schools are from different parts of the United States, The IRB approved post was accessed on an online platform where participants clicked the link to participate. All special education and general education teachers who were apart of the facebook group where the IRB approved survey link was posted and taught grades 6^{th}-12^{th} had access to the survey through the Microsoft office online platform.

Instrumentation

The Attitudes and Comfort Scale

The instrument that will be used for this study is TACS (Perez et al., 2004). See Appendix A for the instrument. See Appendix B for permission to use the instrument. The purpose of this instrument is to measure the attitude and comfort levels of general education and special education teachers on teaching sex education. The instrument was used in numerous studies (e.g., Ang & Lee, 2017; Sato et al., 2021, & Perez et al., 2004). In the study conducted by Sato et al. (2021), the TACS scale was used with samples from other questionnaires to form their research instrument in answering the question to describe the teachers' experiences teaching sex education to students in secondary schools in Japan. The TACS instrument was also used in another study by Ang and Lee (2017) as a guide to creating their survey named Sexuality Education Survey for Teachers of Secondary School Students with Learning Disabilities.

The instrument consists of two different sections. Section one contains nine questions to find the demographics of each teacher participating, and section two contains 30 questions that best represents the beliefs of the participant. TACS is separated into five factors. Factor one: teachers' concern about curriculum implementation, containing seven questions. Factor two: teacher comfort with subject matter, containing six questions. Factor three: teacher interest about curriculum content, containing four questions. Factor four regarding course-specific teacher

attitudes, with three questions. Factor five: teacher attitudes towards sexuality, also with three questions.

Teacher concerns about curriculum implementation will ask questions regarding parental support of a school-based sexuality program, videos that would be effective in teaching sexuality, appropriate lectures, potential guest speakers, and outside groups that may influence the sex education. Teacher comfort with the subject matter addresses the need for additional training, the difficulty of public speaking regarding sex education topics, and whether the teachers are personally comfortable teaching the topics. Teacher interest addresses their personal interests affecting their comfort levels teaching sex education topics, and their beliefs if adolescents should be taught about sexuality. Course-specific teacher attitudes are opinions concerning if young people should learn about sexuality from the teachers' own experiences, if the teachers would be embarrassed by exposing their own experiences, and if students should be discouraged from asking sexuality related questions. Teacher attitudes toward sexuality is an insight to the teacher's opinion about their level of comfort when discussing sex to students (Perez et al., 2004).

The panel of five experts in the field of human sexuality, which included veteran classroom teachers, university professors who had published in the field, and a staff member at Planned Parenthood, assisted with the face validity (Perez et al., 2004). According to Perez (2004), this instrument is based on the standards for instrument development established by the American Psychological Association (1985) and the guidelines suggested by Algina and Crocker (1986). The instrument uses a five-point Likert scale that ranges from strongly disagree =1, disagree =2, neutral=3, agree =4, and strongly agree=5. The combined possible score on the scale ranges from 30-150. A score of 30 means that all sub-sections were highly disagreed with,

and a 150 score indicates highest possible levels of agreement. The TACS instrument should take approximately 40 minutes to complete.

The teachers were given three weeks to complete the survey; any surveys returned after that time were discarded. The instruments' internal and stability reliability were conducted. First, Cronbach alpha coefficients were calculated to determine the internal consistency of the total scale and each derived factor (Perez et al., 2004). According to Perez et al. (2004) a two-tailed Pearson product moment correlation coefficient was performed to establish the stability of TACS, a criterion value of .7 was established for acceptable reliability. The five subscales included in the TACS instrument responded well with the factors indicating a good measure of construct validity (Perez et al., 2004). Cronbach alpha coefficients were calculated for each subscale in the instrument, the reliability analyses of the five factors of TACS were as follows: Factor 1 = .87, factor 2 = .78, factor 3 = .84, factor 4 = .48 and factor 5 = .39.

Procedures

Permission to conduct this study will be secured through Liberty University's Institutional Review Board (IRB) before gathering data. See Appendix C for approval. The social media post in a private teacher group as well as a personal page wasapproved through the IRB prior to its release on social media. See Appendix D for IRB social media post approval. Teacher consent is not needed in this study since the participants are anonymous. Participating teachers were in different school districts throughout the United States. All general education teachers and special education teachers on social media platforms will have access to participate.

Permissions are not needed for the anonymous survey, the TACS questionnaire will be available via Microsoft teams survey link. See the link in Appendix D. The study will be conducted online through a questionnaire sent to each participant from Microsoft Forms. The

questionnaire will contain all TACS questions and use a Likert scale. The teachers will click on the link to complete the TACS instrument. The data will be collected and stored on a locked personal computer. Once all the surveys are complete, the data will be coded and inputted into the SPSS software for analysis.

At all stages of data collection, all information that could identify the participants wasstored securely, and only the researcher had access to records. Data were stored on a private password-protected computer. The computer was stored in a locked filing cabinet when not being utilized. The data will be retained for a period of five years after the completion of this research study.

Data Analysis

The data analysis used in this study was the multivariate analysis of variance (MANOVA). One-way MANOVA is a statistical technique for determining whether groups differ on multiple dependent variables (Gall et al., 2007). SPSS will be used to run the data analysis of the study and to test the hypothesis. There was one independent variable consisting of two categorical groups (general and special education teachers) in the study. The study had independence of observation, as the general and special education teachers had no relationship in both groups. Data screening included the visual screening of the data received to check for missing points and inaccuracies, the data screening was essential to ensure the distribution of data is normal and to eliminate distortion of central tendency (Gall et al., 2007). To use the MANOVA analysis, a few assumptions must be met. First, there should be no univariate or multivariate outliers in each group of the independent variable for any of the dependent variables. The data will be examined for univariate outliers using boxplots, and the data will be examined for multivariate outliers by calculating the Mahalanobis distance. Next, there should be

no multicollinearity; the dependent variables should be moderately correlated with each other. To test for this, Pearson correlation coefficients was calculated between the dependent variables. There also needs to be multivariate normality of the data. To test for this, a Shapiro-Wilk test was conducted. Next, there should be a linear relationship between the dependent variables for each group of the independent variable. This was tested by plotting and inspecting scatterplots for each group. There should also be a homogeneity of variance-covariance matrices, which was tested using Box's M test of equality of covariance. Finally, there should be homogeneity of variances, which will be tested using Levene's test of equality of variances. The *F*-statistic will be reported at the α level of .05, and partial η_p^2 will be used to measure the effect size.

CHAPTER FOUR: FINDINGS

Overview

This quantitative, causal-comparative study aimed to determine the differences between special education and general curriculum teachers' attitudes and comfort levels in having appropriate conversations to special education students. The instrument used for this study is the teachers' attitude and comfort scale (TACS). In this chapter is the research question and the null hypothesis, followed by the descriptive statistics and the one-way MANOVA data results.

Research Question

RQ1: What is the difference between the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special needs students?

Null Hypothesis

$H_0$1: There is no difference in general education and special education teachers' attitudes and comfort levels in having appropriate conversations with special needs students on TACS.

Descriptive Statistics

Teachers in both general education and special education scored higher in their comfort levels on TACS (*M*=31.5, *S.D.*= 5.69, *M*=31.24, *S.D.*= 5.39, *M*=31.34, *S.D.*= 5.47) than in their attitudes on TACS (*M*=29.07, *S.D.*=5.87, *M*= 24.42, *S.D.*= 4.77, *M*=26.25, *S.D.*=5.67). Descriptive statistics can be found in Table 1 below.

Table 1

Descriptive Statistics

	Teachers	*M*	*SD*	*N*
Comfort	General educator	31.5000	5.69275	28
	Special educator	31.2326	5.38887	43
	Total	31.3380	5.47186	71
Attitudes	General educator	29.0714	5.86849	28
	Special educator	24.4186	4.77210	43
	Total	26.2535	5.67380	71

Results

A one-way MANOVA was conducted to determine whether there are any differences between independent groups with more than one continuous dependent variable. First, data screening was conducted to check for errors or incomplete responses. No errors or inconsistencies were found, so all data were retained.

Prior to conducting a one-way MANOVA, there are assumptions that must be met. The first assumption, normality, was tested using Shapiro-Wilk because the sample size was greater than 50. Attitudes and comfort level scores were normally distributed for each type of teacher as assessed by Shapiro-Wilk's test, $p > .05$ (see Table 2).

Table 2

Tests of Normality

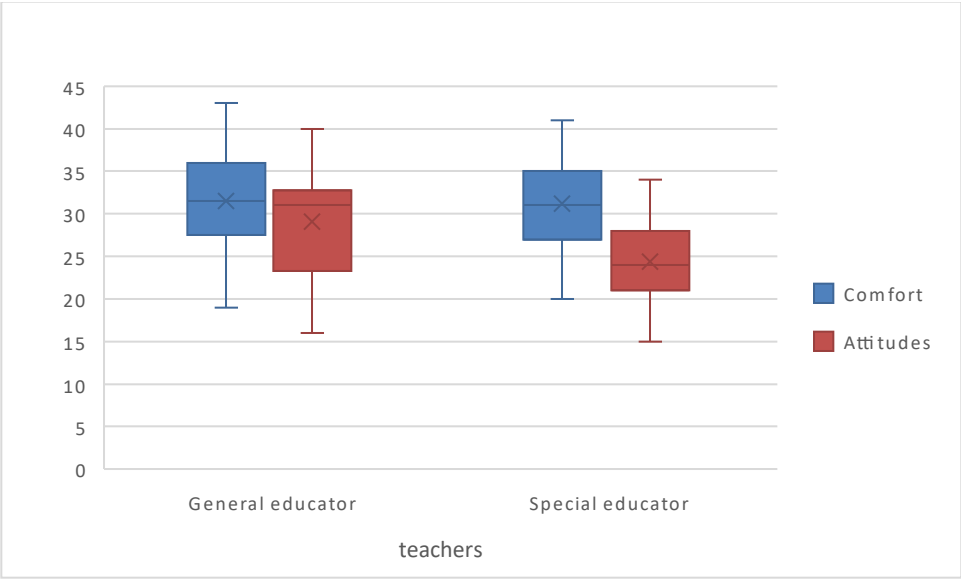
		Comfort		Attitudes	
		General educator	Special educator	General educator	Special educator
Kolmogorov-Smirnov[a]	Statistic	.107	.092	.174	.136
	df	28	43	28	43
	Sig.	.200*	.200*	.030	.045
Shapiro-Wilk	Statistic	.960	.970	.948	.969
	df	28	43	28	43
	Sig.	.347	.324	.177	.293

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

To determine whether there were any outliers in the data, the researcher examined box plots. There were no univariate outliers in the data, as assessed by inspection of a box plot for values greater than 1.5 box lengths from the edge of the box (see Figure 1).

Figure 1

Box Plot



A Pearson correlation test was used between the dependent variables to determine if there were any relationships that were too strongly correlated. There was no multicollinearity, as assessed by Pearson correlation (r=.559, $p < 0.01$).

Table 3

Pearson Correlation

		Comfort	Attitudes
Comfort	Pearson Correlation	1	.559**
	Sig. (2-tailed)		<.001
	N	71	71
Attitudes	Pearson Correlation	.559**	1
	Sig. (2-tailed)	<.001	
	N	71	71

**. Correlation is significant at the 0.01 level (2-tailed).

To determine if there was a linear relationship between the dependent variables for each group of independent variables, a scatter box matrix was created. The researcher examined the scatterplots and determined that there was a linear relationship (see Figures 2 and 3).

Figure 2

Scatterplot Matrix General Education Teachers

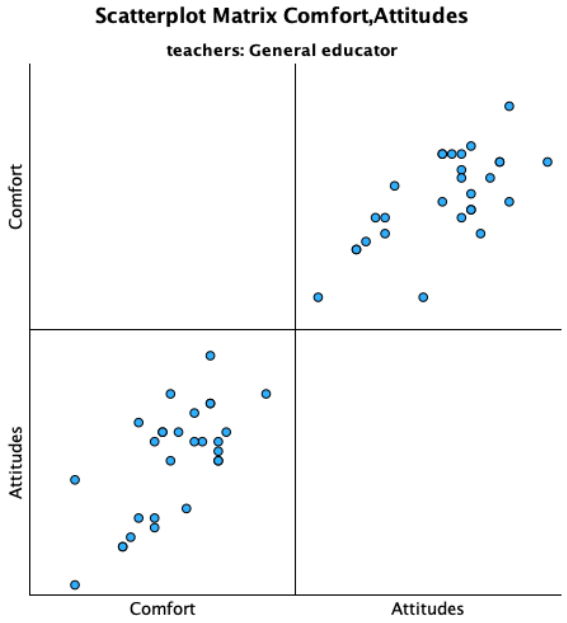
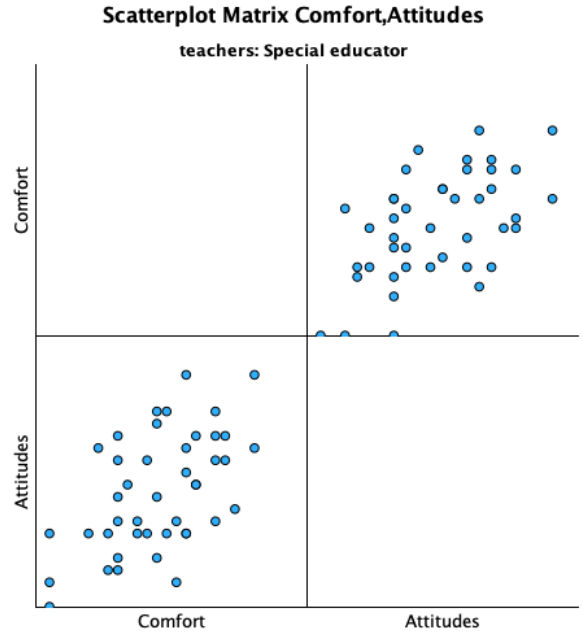


Figure 3

Scatterplot Matrix Special Education Teachers



To test the data for multivariate outliers, SPSS was used to calculate the Mahalanobis distance. There were no multivariate outliers in the data, as assessed by Mahalanobis distance (p > .001). The data collected for the Mahalanobis distance was compared to the p-values to verify. The highest distance was 7.19; this was below 13.82 which is the critical value for two dependents.

According to SPSS, there was homogeneity of variances, as assessed by Levene's Test of Equality of Error Variances, p> .05 (see Table 4).

Table 4

Levene's Test of Equality of Error Variances[a]

		Levene's Statistic	df1	df2	Sig.
Comfort	Based on Mean	.064	1	69	.801
	Based on Median	.067	1	69	.796
	Based on Median and with adjusted df	.067	1	68.760	.796
	Based on trimmed mean	.063	1	69	.803
Attitudes	Based on Mean	.878	1	69	.352
	Based on Median	.331	1	69	.567
	Based on Median and with adjusted df	.331	1	54.554	.567
	Based on trimmed mean	.828	1	69	.366

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + teachers

To test for homogeneity of variances-covariances, a Box's Test of Equality was created. The researcher determined that there was homogeneity of variances-covariances matrices, as assessed by Box's test of equality of covariance matrices where p = .650.

Table 5

Box's Test of Equality of Covariance Matrices

Statistic	Value
Box's M	1.696
F	.547
df1	3
df2	158040.982
Sig.	.650

A one-way multivariate analysis of variance was run to determine the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special education students. Two measures were assessed: the attitudes and the comfort levels of general education teachers and special education teachers. There was a statistically significant difference between the teachers on the combined dependent variables, $F(2, 68) = 9.712$, $p < .05$; Wilks $\Delta = .778$; partial $n^2 = .222$, indicating a large effect size. Therefore, the researcher rejected the null hypothesis.

CHAPTER FIVE: CONCLUSIONS

Overview

Chapter Five investigates the results for this quantitative, causal-comparative study that sought to determine if there was a difference between general education teachers' and special education teachers' attitudes and comfort levels when having appropriate conversations with special needs students. This chapter includes a discussion of the findings related to the literature on the implications of the lack of appropriate sex education classes for students with special needs, the lack of training for teachers in handling these conversations and the overall comfort levels of educators in determining the success of the students. The chapter concludes with a discussion of the limitations of the study and areas for future research.

Discussion

The purpose of this quantitative, causal-comparative study was to determine the differences between general education teachers' and special education teachers' attitudes and comfort levels in having appropriate conversations with special education students. Knowledge of the attitudes and comfort levels was examined by using the five factors of the TACS instrument: teachers concern about curriculum implementation, teacher comfort with subject matter, teacher interest about curriculum content, course-specific teacher attitudes, teacher attitudes towards sexuality, and teacher concerns about curriculum implementation. The study was conducted online via a social media platform, using an IRB-approved social media post. Seventy-one teachers participated: 42 special education teachers and 29 general education teachers who all taught grades between 6^{th} and 12^{th}. The survey contained one instrument, the Attitude and Comfort Scale (TACS) as well as questions regarding demographics, current teaching grade level, and current teaching certificate held.

The research question that guided this study was, “What is the difference between the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special needs students?” The null hypothesis stated that there is no difference in general and special education teachers’ attitudes and comfort levels in having appropriate conversations with special needs students on TACS.

Although various studies have described the cultural and religious barriers teachers may encounter when teaching about sex and sexuality, less research has focused on the role of teachers’ personal experiences (Hass, 2021). The focus of this study was primarily the attitudes and comfort levels that teachers may face in a situation that can occur at any school. A one-way multivariate analysis of variance was run to determine the attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special education students. The results for the two measures that were assessed was a statistically significant difference between the teachers on the combined dependent variables, F (2,68) = 9.712, $p < .05$; Wilks $\Delta = .778$; partial $n^2 = .222$. The researcher rejected the null hypothesis.

The literature showed strong correlations between a teacher’s skill and training level and their level of comfort in teaching sex education and/or having an appropriate conversation with a special needs student. The findings of this study support other studies that have found a relationship between the teacher’s attitude and comfort level and the having appropriate conversations about sexuality with special needs students. A research article by Khau (2022) indicated that teachers resorted to their comfort zones when designing their lesson plans in line with their socialization, but their understandings and perceptions of teaching sex education were challenged and deconstructed through their engagement in education processes, which highlights the importance of engaged scholarship in deconstructing harmful norms towards transformative

pedagogies. Some mainstream comprehensive sex education teachers employ a pedagogy of discomfort, in which they are culturally and religiously conflicted and embarrassed to teach the curriculum itself (Khau, 2022). Previous research has indicated that teaching sex education to students with disabilities is their comfort level with the curriculum itself, there is also an abundance of research regarding the lack of proper training; inadequate teacher training remained a hurdle to practical implementation, manifesting in teacher discomfort and inaccurate messaging (Keogh et al., 2021).

The theoretical framework of this study included two theories: the theory of planned behavior and the health belief model. The theory of planned behavior focuses on the ability for people to exert self-control. Included in this theory is the belief that an attitude towards a behavior, their beliefs, subjective norm are all connected with the intention and the behavior. The current study aligns with this aspect of the theory. Both general education and special education teachers base their comfort levels on their attitudes towards specific subject matter and their personal beliefs. The health belief model has not aligned with prior research, as it does not focus on the attitudes and comfort levels. It also assumes that everyone has the same equal information available to them regarding their health and preventative measures (Carpenter, 2010). This study focused on the attitudes and comfort levels of teachers in situations regarding sexual talk or sexual acts that occur in school.

This study found that both general education and special education teachers scored higher in their comfort level of having appropriate conversations with special needs students regarding things of a sexual nature. While a high level of comfort was found amongst both groups of teachers, general education teachers scored a mean of 29.07 in their attitudes, while the special education teachers results scores resulted in a mean of 24.42, which is statistically lower. In this

survey, 35% of participants simply agreed that persons involved in sex education lack training, while 17% of participants strongly agreed. In previous research, teachers believed that they were not provided the proper number of tools, resources and skills needed to deliver an extensive and accessible sex education program needed for students with disabilities (Strnadova et al., 2022). While not all participants believed that training is necessary, 39% of the participants agreed that they would need additional training on how to teach and incorporate the emotional aspects of human sexuality. Since the addition of students with special needs in general education classrooms, all teachers have had to adjust their personal beliefs for the benefit of all students. Special needs students do not learn what is appropriate through friends as other peers do, and do not understand that grabbing someone, public masturbation, or sexual talk is not appropriate in a public situation. These situations unfortunately do happen every day in high schools and even middle schools. The attitudes level of the teachers in this study scored statistically lower amongst both groups of teachers. The trend in the difference is that special education teachers can potentially see more behaviors that are inappropriate thought out the day while the general education teachers do not feel that those behaviors are appropriate and do not understand why they cannot just be told to stop without an explanation. In previous research, it has shown that general education teachers do not feel that they have enough training regarding special education students, therefore they do not understand all that special education can involve. Few studies have focused on the specific nature of sexuality education for special education students and who would be responsible for teaching it. Teachers' belief systems about the inclusion of students with special needs may explain the gaps between policy and practice. Research in this field has produced contradictory findings, resulting in sparse understand of why teachers differ in their

belief systems and how teachers' training experiences contribute to their development (Dignath et al., 2022).

Implications

This study asked challenging questions that not all educators are comfortable with. The instrument itself asked questions such as if the teacher believed that teaching and talking about sexuality will encourage a student to be sexual or if a student should be discouraged from asking a teacher a sexually related question. The survey itself is an eye opener to teachers that may not have been exposed to a situation with a special needs student that involves sexuality. Since the enactment of IDEA and the inclusion of special needs students in the general education setting, education involves more than simply teaching the curriculum. If a student is unaware of appropriate behavior and a situation arises, the teacher in the room must be prepared to not scold the student but educate the student on what is appropriate and what is not. This study expanded on previous research that showed teachers were simply not prepared for teaching sexual education classes nor for providing education in other areas of the school. The scores calculated that while teachers' attitudes were in the right place, their comfort levels varied. An important finding from this study was that even though all teachers' comfort levels were close to one another, and their attitudes scores varied, they all seemed to agree that sex education is a key factor in a school setting. Though some participants were strongly against the idea, 35% strongly disagreed that they have strong feelings about it. Simply because someone is born with a disability does not automatically turn that part of their brain and body off. All students their rights regarding their bodies. This survey showed that 42% of the teachers who participated strongly disagreed that students should be discouraged from asking sexually related questions.

The scores from this survey showed that while all teachers do not agree on every aspect of sex education, the scores showed that they are not against having the conversations if needed and guiding students in an appropriate direction.

Educational leaders at the state and national levels need to incorporate a comprehensive sex education program training for general education and special education teachers. This would give teachers the guidance needed in educating special needs students in what is appropriate sexually in private versus in public. With IDEA and FAPE, the focus is strictly on the academic aspect of education. Special needs students need to be taught multiple academic subjects as well as social skills, sex education and their rights to their bodies. While the educational aspect is still warranted and needed, it is not enough to encourage and build a well-rounded adult. When educators witness inappropriate behavior from either a general education student or a special needs student, that teacher needs to have the tools to deescalate or detour the behavior and use that moment to work on an appropriate skill. The schools' board of education should be involved in the implementation and approval of a sex education program that is appropriate for their special needs 'population. There are incidences and behaviors that occur more than likely daily in middle and high schools across the United States. This population of students (special education) is not going away and is only growing. Proper tools are needed to ensure the safety and understanding of people with special needs. Teachers must be prepared with the knowledge and skills to help guide these students.

Limitations

Several limitations in both internal and external validity were noted in this study. Internal validity refers to the extent to which a study's results were not impacted by other variables

(Warner, 2021). External validity refers to the extent to which a study's results can be generalized to other settings or applied in a practical, real-world scenario (Gall et al., 2007).

The first limitation concerning external validity would be the study's effect size. A large effect size would suggest that the difference may be noticeable in the classroom, but not as easy to recognize in the real world. An internal validity limitation to this study would be the teachers who participated. A higher number of special education teachers (44) participated than general education teachers (28). However, these numbers are not accurately reflected in the survey score. The scoring on this survey was generalized and averaged together, meaning the ratings may not be accurate if the same number of types of teachers participated. The third limitation regarding external validity was the inability to clarify their responses to the survey. The questions on the survey were direct and the only choices ranged from strongly disagree to strongly agree. The participants may have had to simply choose an answer if the answer they wanted was unavailable. This could have impacted the total scores of one or multiple questions.

Recommendations for Future Research

Researching teachers' attitudes and comfort levels in having appropriate conversations with students with special needs helped bridge the gap in existing research and could lead to improved student outcomes. This would ensure that teachers are properly trained and equipped with the knowledge to educate and support students with disabilities and their knowledge on sexual health and sexual appropriateness. The current study examined the relationship between general education teachers' and special education teachers attitudes and comfort levels in having appropriate conversations with students with special needs. While this study helped to close some of the gaps in current literature, many areas have yet to be explored. The following are recommendations for future research:

1. Replication of this study with participants from specific areas within different states, which may increase generalizability.
2. Replication of this study with participants whose schools train teachers in sex education curriculum may alter the results in both attitudes and comfort levels.
3. Replication of this study with a different instrument to measure attitudes and comfort levels in having appropriate conversations with special needs students to compare the findings with this study and investigate the reliability of the TACS survey.
4. Investigate additional variables that may impact teacher's attitudes and comfort levels in having appropriate conversations with special needs students, such as administrative support and opinions, financial obligations for the trainings and accessibility to resources.
5. Conduct qualitative research to further investigate teachers' attitudes and comfort levels in educating and having appropriate conversations with special needs students and their perspectives from various sex education trainings, techniques, and accommodations.

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APPENDICES

Appendix A

Teachers' Attitude, Comfort & Training for Sexuality Education

Instructions: Select the best response for each of the demographic questions below.

1. Gender

    1. Male 2. Female

2. When were you born? 19_____

3. Mark your race/ethnicity

    1. White/Not Hispanic
    2. Black/African American
    3. Latino/Hispanic
    4. Asian (specify) _____
    5. Pacific Islander (specify)_____
    6. Native American
    7. Other (Specify) _____
    8. None

4. Teaching level

    1. Kindergarten
    2. Elementary
    3. Junior high
    4. High school

5. What is your marital status?

    1. Single
    2. Married living with spouse
    3. Married but away from spouse
    4. Live with significant other
    5. Divorced
    6. Widowed

7. Unsure
8. Other _____

6. What is the highest grade you completed in school?

1. High school graduate
2. 1-2 years of college
3. 2-4 years of college
4. College graduate
5. Some graduate courses
6. Graduate degree
7. Doctorate

7. In the average month, how many times do you attend a church or synagogue?
1. Never
2. Once
3. Twice
4. Three
5. Four or more
6. None

Please respond to each of the following statements by circling the number of the choice which best represents your feelings or beliefs. Use the following scale:

5 = Strongly agree 3 = Mixed feelings 1 = Strongly disagree
4 = Agree 2 = Disagree

8. I find it difficult to speak about sex. 1 2 3 4 5

9. I would be embarrassed to teach about sexuality to my students. 1 2 3 4 5

10. Sexuality should not be discussed in the classroom. 1 2 3 4 5

11. I would not be comfortable teaching a class concerning sexuality 1 2 3 4 5

12. Students should be discouraged from asking sexuality related 1 2 3 4 5 questions.

13. I have very traditional ideas about a man's role in life. 1 2 3 4 5

14. I have very traditional ideas about a woman's role in life. 1 2 3 4 5

15. Teachers who have strong religious beliefs about sexuality should 1 2 3 4 5 teach those to their students.

16. Talking about sexuality encourages people to become sexual. 1 2 3 4 5

17. Young people should learn about sexuality from their own 1 2 3 4 5 experiences.

18. Teachers need to discuss the roles of the family in personal 1 2 3 4 5 growth and development.

19. Teachers need to help adolescents understand their responsibilities 1 2 3 4 5 to self, family, and friend

20. Teachers need to help adolescents develop skills in getting along 1 2 3 4 5 with members of the opposite sex.

21. Adolescents should be taught about sexuality. 1 2 3 4 5

22. Sexual play among adolescents is natural and harmless. 1 2 3 4 5

23. Sexuality education should not be taught in school. 1 2 3 4 5

Please respond to each of the following statements by circling the number of the choice which best represents your feelings or beliefs. Use the following scale:

5 = Strongly agree 3 = Mixed feelings 1 = Strongly disagree
4 = Agree 2 = Disagree

24. Experts such as doctors, nurses, psychologists rather than 1 2 3 4 5 classroom teachers should be called upon to teach sexuality in the school.

25. I have strong feelings against teaching sexuality in schools. 1 2 3 4 5

26. Persons involved in school sexuality education lack adequate training. 1 2 3 4 5

27. Before a person should be allowed to teach sexuality education, 1 2 3 4 5
they should meet certain criteria (i.e. certification).

28. A well-qualified teacher is the most important ingredient in an 1 2 3 4 5
effective school sexuality education program.

29. I need additional training on how to teach and incorporate the 1 2 3 4 5
emotional aspects of human sexuality.

30. Videos are an effective method for teaching sexuality. 1 2 3 4 5

31. Lectures are an effective method for teaching sexuality. 1 2. 3. 4 5

32. I need additional training on the sexuality of adolescents. 1 2 3 4 5

33. Parents are generally supportive of school-based sexuality education. 1 2 3 4 5

34. My school district provides adequate training and helps teachers 1 2 3 4 5
to secure necessary resources.

35. Outside groups (i.e., parents, religious groups) pose a significant 1 2 3 4. 5
influence to implementing sexuality education in the classroom.

36. Guest speakers are effective methods for teaching sexuality. 1 2 3
4 5

37. Teachers should refrain from physically touching their students. 1 2 3
4 5

Appendix B

[External] Re: Instrument Use for

[redacted]

1 attachment
(30 KB) final tacs
(teacher)
scale.pdf;

You don't often get email from [redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Dear Ms. Hensley,

Thank you for your patience in waiting for my response, but since we are on summer break, I do not check my email on a regular basis.

You have our permission to use the TACS (enclosed) as part of your doctoral work at Liberty University and we would appreciate a copy of your dissertation when it is approved.

Best to you in your educational endeavors,

[redacted]

Dear Dr. Perez,

Please let me introduce myself. My name is Jessica Hensley, and I am a currently a student at Liberty University. I am enrolled in the PhD program with a focus on special education. My research is attitudes and comfort levels of general education teachers and special education teachers teaching sex education to special needs students. My research question is "What is the difference between the attitudes and comfort levels of general education and special education teachers in teaching human sexuality to special needs students". I have researched many articles looking for an appropriate instrument and found your TACS instrument in your journal article,

"Instrument Development for Measuring Teachers' Attitudes and Comfort in Teaching Human Sexuality." Your TACS instrument is appropriate for my research, and I am asking permission to use the instrument in my studies. Thank you for your time.

Respectfully,

[redacted]

Appendix C

IRB #: IRB-FY23-24-1035
Title: General Education and Special Education Teachers' Attitudes and Comfort Levels in having appropriate conversations with special needs students.
Creation Date: 12-11-2023
End Date:
Status: Approved
Principal Investigator: Jessica Hensley
Review Board: Research Ethics Office
Sponsor:

Study History

Submission Type Initial Submission Type Modification

Key Study Contacts

Review Type Review Type

Exempt Exempt

Decision Decision

Contact Contact Contact

Exempt Exempt

[redacted]

Member Member Member

Rebecca Lunde Jessica Hensley Jessica Hensley

Role Co-Principal Investigator Role Principal Investigator Role Primary Contact

Appendix D

ATTENTION TEACHERS: I am conducting research as part of the requirements for a doctoral of special education degree at Liberty University. The purpose of my research is to compare attitudes and comfort levels of general education and special education teachers in having appropriate conversations with special needs students. To participate, you must be a certified teacher 6th grade and above in any general education class or in special education. Participants will be asked to take an anonymous, online survey. It should take approximately 15 minutes to complete the procedure listed. Participants will be completely anonymous, and no personal, identifying information will be collected. If you would like to participate and meet the study criteria, please click here:

https://forms.office.com/Pages/ResponsePage.aspx?id=jiH4ugKzZUSpk0o5yXJRsqspPbROD7ZMs4B_JbUFzm5URjFLWUtZNUJaWTY1RE80OFE2VVlMR05NUi4u

Appendix E

Congratulations on the successful defense of your dissertation Dr. Hensley!!!!

The TACS is a copyrighted instrument, but we are happy to extend the limited permission previously granted for data collection to include publishing of your results. Please share a copy of the published paper when it comes out.

Again, CONGRATULATIONS!