12-2023

School Nurses and the Sexual Health and Education of Public-School Students in Tennessee

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School Nurses and the Sexual Health and Education of Public-School Students in Tennessee

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A dissertation

presented to

the faculty of the Department of Nursing

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Philosophy in Nursing

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by

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December 2023

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Keywords: school nurse, sexual health, sexual health education, sexually transmitted disease, qualitative, Critical Discourse Analysis

ABSTRACT

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Tennesseans have been experiencing increasing rates of sexually transmitted diseases since the year 2000. Those rates are highest among those 15- to 24-year-olds. At the same time, Tennessee policy requires the teaching of abstinence as the primary form of sexual health education and emphasized the use of abstinence-only curriculum. The school nurse represents an available resource in the Tennessee public schools. The purpose of the qualitative study was to explore, describe, and interpret the perceptions and experiences of public-school nurses from rural, suburban, and urban areas of Tennessee related to the sexual health and sexual health education of students. School nurses were recruited from across the state and from a variety of communities to complete an electronic survey and to participate in individual interviews. Critical Discourse Analysis was used to analyze results in the context of the existing sociocultural and power structures. The research plan included a comparison of results from participants in rural, suburban, and urban areas that could not be done because of the limited responses obtained from potential participants. Emerging themes in light of the limited participant responses created a view of power structures within the context of existing conditions that may be impacting the sexual health of students.

DEDICATION

I dedicate my dissertation to Gary M. Wake, my husband, who has supported me through this process and through most of my life. Your support of and commitment to me and my efforts over the decades, and especially over these last six years, has made all the difference. I love you, and I thank you.

ACKNOWLEDGEMENTS

First, I would like to acknowledge my dissertation committee. I appreciate the time and attention given to me by Dr. Lisa M. Haddad, chair, Dr. Jean Croce Hemphill, Dr. Patricia Harnois-Church, and Dr. Kate Beatty. I would like to thank Dr. Haddad for the years of mentorship, support, and encouragement.

Second, I would like to thank my family. I have already mentioned my husband, Gary, but he is definitely worth a second mention and thank you. I would like to thank my children, Marley and Rob, for being so supportive of my work while pursuing their own goals and dreams. They inspire me daily. My parents, Robert and Marlene Rine, have always emphasized the importance of education and supported my educational goals. I thank them for that. My sisters, MaryBeth, Karen, and Holly, have provided hours of entertainment and support through my doctoral journey. I need to give special acknowledgment to my sister, Holly Anne Rine, PhD, for her support through this process, keeping me on track and on target with understanding, humor, and treats.

Third, to the rest of my family and friends who offered support, encouragement, food, and drinks, thank you for everything.

Fourth, I am thankful for the office of Graduate Student Success at ETSU and the interns who met with me regularly over the past 2 ½ years acting as accountability partners. Hannah, Megan, Jacob, Aaron, and Joey were great to work with and helped keep me moving forward.

Finally, to my precious granddaughter, Amelia, who arrived as a surprise early in my doctoral journey, thank you for keeping my life interesting and colorful with your presence and spirit. I love you.

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Chapter 1. Introduction

The World Health Organization (WHO, 2019) identifies sexually transmitted disease (STD) as an important global health issue and adolescents as a vulnerable population relative to STDs. Adolescents aged 15 to 24 years account for about 14% of the United States (US) population (United States Census Bureau [USCB], 2020). However, members of this same age group account for about 53% of all STDs in the US (Centers for Disease Control and Prevention [CDC], 2023c). This age group accounts for 61% of chlamydia cases, 42% of gonorrhea cases, and 20% of syphilis cases nationally (CDC, 2023b). A lifetime of problems can result from contracting STDs. The CDC (2021) reports that STDs can lead to chronic pelvic pain, pelvic inflammatory disease, increased risk of certain cancers, infertility, and pregnancy complications. The costs to the US healthcare system for STD-related treatments will exceed $1 billion dollars lifetime for people with chlamydia, gonorrhea, and syphilis contracted in 2018 alone, and 60% of that lifetime total will be for people aged 15-24 years. (CDC, n.d.).

According to 2021 data, Tennessee is ranked 11th in the US for gonorrhea, 12th for chlamydia, and 23rd for syphilis (CDC, 2023a). Tennessee's rates for gonorrhea and chlamydia exceed the national average. Increases continue with rates of STDs with the exception of chlamydia (CDC,2023a). The CDC notes throughout their reporting that all rates were impacted by the COVID-19 pandemic with special attention to chlamydia rates since chlamydia is often detected during routine care. The CDC notes across reporting sites for all diseases that rates were very likely underreported rather than decreased. Reported rates of STDs and other diseases were influenced and impacted by reductions in screenings, limitations on resources, and decreases in routine care that would have led to identification of symptomless diseases like chlamydia (CDC, 2022).

While several researchers point to the unique position of school nurses to address issues of sexual health, sexual health education (SHE), and STD prevention, a dearth of information exists related to the experiences, roles, impact, and influences of school nurses in these areas (Dickson et al., 2020; Jackson, 2011; Majer et al., 1992; Smith et al., 2020). SHE that is comprehensive, medically accurate, developmentally appropriate, and culturally relevant improves health outcomes for adolescents (CDC, 2023b). The CDC (2023b) reports that less than 43% of high schools in the US teach key topics for SHE. Research addressing experiences, roles, impacts, influences, and interventions of school nurses related to the sexual health and SHE of adolescents in schools and systems in highly impacted states like Tennessee can help expand foundational information to manage the continuing increases in STD rates.

Background

Tennessee has consistently seen rising rates of STDs over the past years, especially among adolescents, with chlamydia increasing since the year 2000 and gonorrhea and syphilis increasing steadily since 2014 (CDC, 2022). While these trends cross all age groups, the 15 to 24-year-old age group represents the greatest proportion of STDs in the state. Poverty is an identified risk factor for STDs (CDC, 2022). Tennessee ranks 41st out of 50 states for poverty (USCB, 2020).

When reviewing Tennessee state data, county-level data for 15 to 24-year-old residents with specific STDs is not available from the CDC or the Tennessee Department of Health (TDH). When reviewing county ranking for STDs by rate per 100,000 population for all age groups, rural counties are at or near the top of the list for all categories (CDC, n.d.). Seven of the top 10 counties for rates of gonorrhea and syphilis are rural, and six of the top 10 counties for

chlamydia are rural, demonstrating the impact of STDs across a variety of communities in the state (CDC, n.d.).

Tennessee has a policy that promotes the teaching of abstinence as the primary form of sexual health education in public schools and allows for the teaching of abstinence exclusively. This is termed sexual risk avoidance and is promoted by the federal government as well as at the state level (Romines, 2023). Regulations for sexual health education are included in Tennessee Code Annotated (TCA) Title 49 Chapter 6. The CDC provides 22 critical topics for comprehensive SHE (CDC, 2023b). Less than one-third of high schools (grades 9-12) in Tennessee report providing SHE inclusive of the 22 topics identified by the CDC (Romines, 2023). Parents are allowed to opt-out students from SHE in Tennessee (Romines, 2023). TCA Title 49 Chapter 6 previously required the teaching of SHE beyond abstinence if the pregnancy rate among 15 to 17-year-old females exceeded 19.5% per 1,000 females in a county (McKeever, 2020). The code changed to remove that stipulation. School systems are no longer required to monitor teen pregnancy rates for their communities (M. Bloodworth, personal communication, August 22, 2023).

Problem Statement

With all of this information, school nurses are lacking a voice in the conversations concerning sexual health and sexual health education. The literature contains little information, research, and data from school nurses who are an available healthcare access points for Tennessee public-school students as well as many other public-school students across the country. The school nurse's perceptions and experiences with the sexual health and sexual health education of students need to be explored and described in the literature.

Purpose

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. The limited research on sexual health and sexual health education from the perspective of the school nurse exposes a significant gap in the literature and demonstrates the need for an exploration of the experiences, roles, influences, and impact of school nurses in the sexual health and the sexual health education of public-school students especially those from areas like Tennessee who are at risk for exposure to sexually transmitted diseases.

Research Question and Aims

How do school nurses working in Tennessee public schools perceive their roles in the sexual health and the sexual health education of students from rural, suburban, and urban communities?

Aim 1: To explore the perceptions of school nurses about their roles in the sexual health and sexual health education of students in Tennessee public schools.

Aim 2: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in rural areas of Tennessee.

Aim 3: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in suburban areas Tennessee.

Aim 4: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in urban areas of Tennessee.

Aim 5: To compare, contrast, and interpret the perceptions and experiences of public-school nurses from rural, suburban, and urban areas of Tennessee related to the sexual

health and sexual health education of their students in the context of their societal, cultural, and power structures.

Assumptions

Several assumptions exist with the proposed research:

- School nurses have the knowledge and self-efficacy to participate effectively in the sexual health and sexual health education of students.
- Various and varying societal and cultural mores across rural, suburban, and urban areas of Tennessee influence and impact sexual health and sexual health education of those subjected to those mores.
- The sexual health and sexual health education of students in Tennessee are impacted by both health policy and social policy.
- Individuals and societies are driven, influenced, and constrained by power and knowledge.

Philosophy

Post-positive philosophy of science developed in the mid-twentieth century as a response to the increasing rigidity of positivist philosophy (Godfrey-Smith, 2003). The post-World War II social and political climate was in a state of change with movements focused on equality and civil rights. The changes that occurred in the social and political realms of the mid-century are reflected in and by the changes occurring simultaneously in the scientific realm. The United States Supreme Court ruled on Brown versus the Board of Education of Topeka in 1954 mandating for the desegregation of public schools. The Little Rock Nine attended Central High School in Little Rock, Arkansas in 1957. Martin Luther King, Jr. led the civil rights march on Washington, DC in 1963. In 1962, Thomas S. Kuhn (2012) published his seminal work *The*

Structure of Scientific Revolutions. Kuhn, along with other philosophers of science, began to address the impact of historical context on the changing landscape of science, scientific research, and the scientist (Dahnke & Dreher, 2016). The post-positive philosophy considers the impact of social, behavioral, and human sciences on the scientific world and acknowledges the relevance of these sciences to the natural sciences and scientific research (Dahnke & Dreher, 2016). Post-positive philosophy acknowledges the impact of historical context and the humanity of the researcher seeking to address bias in an effort to improve research outcomes (Godfrey-Smith, 2003).

The post-positivist researcher and post-positivist philosophy must acknowledge a place for both qualitative and quantitative data and processes (Clark, 1998). Because of these factors along with the acknowledged impact of history, culture, and context, truth is not, nor can it be, absolute but an expression of the current view of truth. The post-positivist understands ontologically that as these influencing factors change so will the view of truth and the view of reality. As the historical and contextual influences of the world change, both researcher and participant will change in their perceptions of reality and truth. The nature of being human impacts the nature of existence.

Kuhn's work is positioned historically to have had an impact on the work of post-modernist philosophers of science like Michel Foucault (Dahnke & Dreher, 2016). Foucault (2000) married relationship and language, noting the need to identify the context, use, and influencing factors on language and discourse in order to analyze that discourse appropriately. Foucault (2000) addressed power as one primary influencing factor. Fairclough (2010) built his views of power, relationship, and discourse analysis philosophically from the work of Foucault and others.

For this work, the researcher needs to acknowledge the social and historical context that impacts the problem. Policy issues are related to Tennessee state law and the federal government adoption of sexual risk avoidance which is taught in schools as abstinence (Romines, 2023). The social norms or social policies of communities need to be considered when addressing issues of sexual health and SHE as rural communities typically are different functionally from urban communities (Long & Weinert, 1989). While Dillon and Savage (2006) focus on specific issues of abortion and same-sex relations, their work generally addresses values and religiosity that influence rural America. The southern US is particularly impacted by conservative religious beliefs (Dillon & Savage, 2006). These conservative religious beliefs impact social policy across the state.

Conceptual Frameworks

Theories provide a framework to guide knowledge development achieved through nursing research (Alligood, 1997). Two theoretical frameworks supported this research both of which are nursing specific: the Roy Adaptation Model (RAM) and Rural Nursing Theory (RNT). RAM is a very highly developed and widely used theoretical framework in nursing (Roy, 2009). RNT is designed to provide a framework for nursing within the context of rural communities (Long & Weinert, 1989). These theories together provide a strong but flexible framework for Critical Discourse Analysis (CDA) to address the perceived roles and experiences of school nurses concerning the sexual health and sexual health education of students in rural Tennessee communities as well as an exploration of relationships between school nurses and the sexual health, the sexual health education, and the meeting the sexual health needs of their students in the context of their existing societal, cultural, and power structures.

Roy's Adaptation Model

RAM supports qualitative research through recognition and description of adaptive systems that help to change output behaviors. RAM uses the interconnectedness of the adaptive modes impacted by individual coping processes that lead to behavioral output (Roy, 2009). The individual adapts in various ways based on the manner in which the person is currently experiencing and coping with the stimuli and experiences influencing the person, health, and environment (Roy, 2009). RAM addresses the adaptive modes of physiological/physical, self-concept/group identity, role function, and interdependence (Roy, 2009). RAM presents strong philosophical, scientific, and cultural assumptions to support individuals and groups as they experience adaptations in person, health, and environment. RAM perceives the person as a thinking, feeling, creative, and interdependent being with complex relationships with others, the environment, health, and spirit/God (Roy, 2009).

RAM requires the acknowledgment of culture, cultural expression, and cultural perspectives (Roy, 2009). The influence of culture is important when working within the boundaries of various populations. RAM acknowledges the focal, contextual, and residual components of the environment (Roy, 2009). In RAM, as in nursing, the individual and the environment impact each other. The interconnectedness of person, health, environment, and nursing as outlined in RAM acquires unique attributes in the context of sexual health.

Rural Nursing Theory

RNT helps to further define the cultural impact on the population. Concepts specific to rural populations include health as the ability to be productive and self-reliance as the ability to provide for self and family (Lee et al., 2018). Health is further influenced by isolation and distance from practitioners (Lee et al., 2018). RNT addresses the concept of a lack of anonymity

and role diffusion for nurses and other health care providers in rural communities which can have an effect on highly personal health issues like sexual health, SHE, and STDs. The concepts of anonymity and role diffusion in particular were considered when working with members of rural communities on their perspectives and experiences with sexual health and STDs.

RNT addresses aspects of accessibility, ability to function, lack of anonymity, and other concepts that create unique problems within the rural context (Long & Weinert, 1989). RNT approaches health and health-related interventions from the community and the individual perspective (Long & Weinert, 1989). Both the community and the individual have an impact on the public health issue of rising rates of STDs in general and among 15-24-year-olds specifically. Both the community and the individual influence sexual health, SHE, and STD prevention and treatment from external and internal perspectives.

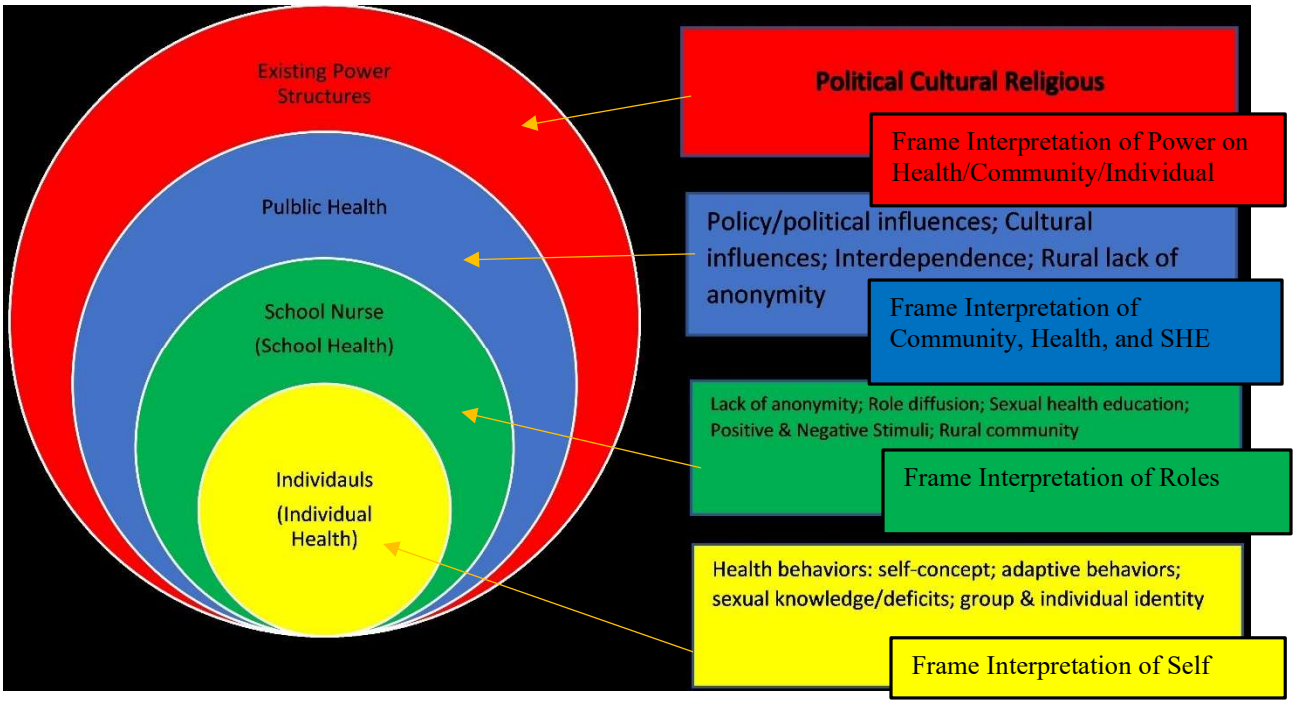
Combining Theories

RAM and RNT were combined to create a framework to support the unique aspects of individual, community, rurality, and SHE. The school nurse represents a present and available health practitioner in communities that can be lacking adequate health care providers. The school nurse and school health provide a link between individual health and public health in rural communities that may not be present or necessary in urban communities. The school nurse is an important resource for both individual and community health especially as it relates to the issues of sexual health and STDs. The school nurse is uniquely positioned to impact the health behaviors in general and the sexual health behaviors specifically of students by using a recognition of the nature of the community culture.

Figure 1 below is a visual representation of combined constructs that were used as a general theoretical framework for the qualitative research. The visual was created by the researcher for use in this work.

Figure 1

Adaptation of RAM & RNT Applied to School Nurses and Sexual Health



In Figure 1, the interconnectedness of individuals, communities, health, and power are combined within the concepts of RAM and RNT. Concepts from RAM (Roy, 2009) such as health behaviors, self-concept, and group and individual identity are used to frame the interpretation of self for the individual. The figure shows RAM's (Roy, 2009) concept of positive and negative stimuli along with RNT's (Long & Weinert, 1989) concepts of lack of anonymity and role diffusion combine to frame the interpretation of roles for the school nurse as it encompasses the health of individuals. Interpretation of public health is framed by the combined concepts of policy and cultural influences along with interdependence and lack of anonymity.

Political and cultural influences including religion are used to frame the interpretation of existing power structures. The figure is used to visualize the combination of the two theories as they relate to the school health nurse and school health nursing in the current context of the sexual health and education of students. Concepts and terms are defined in more detail below.

Terms and Concepts

Terms and concepts used in this research need to be defined.

Terms

Terms are defined for clarity of use within the research. The terms defined are not exhaustive of terms used within the research but represent primary ideas in the research that may be addressed or defined in various ways.

Sexually Transmitted Diseases (STDs) are those diseases that are transmitted from person to person via sexual contact that can be vaginal, anal, and/or oral (CDC, 2022). While there are multiple STDs, the CDC reports primarily on syphilis, gonorrhea, and chlamydia. The CDC (2022) notes that sexually transmitted diseases are also known as sexually transmitted infections (STIs). Because the CDC uses the term sexually transmitted disease or STD, the term sexually transmitted disease or STD was used in this research.

Rural is a primary term for this research and can be defined in multiple ways. The USCB continues to define *rural* as not urban (Bureau of the Census [BC], 2021). Other definitions of rural can be applied to various areas based on the agency working in the area. According to the TDH, counties or areas can be classified as rural by multiple means depending on the reason or purpose of the definition. The Office of Management and Budget (OMB) addresses the major categories of metropolitan, micropolitan, or neither (United States Department of Health and Human Services [HHS], 2020). Rural communities fall into the category of neither. Rural

communities fall into the nonmetro categories with micro areas having small urban clusters between 10,000 and 49,999 population using metro criteria. Everything not otherwise categorized is deemed noncore and the most rural of communities (BC, 2021).

Because of the varied and often ambiguous definitions of rural and because of the variety of students in any given school or school system, the participant will be the one to define rurality for the purposes of this work. Allowing the school nurse, the participant, to determine rurality may increase recruitment and participation. Additionally, allowing the participant to determine rurality may invite a more open conversation, trust, and revelation of experiences when the definition of student population is not limited by the researcher before the interview begins.

Urban is a term with multiple potential definitions. The BC (2021) uses the term *urban* to address urban areas as those with at least 50,000 people and urbanized areas as places with a population of at least 2,500 people. The BC (2021) also discusses the urban fringe areas around urban areas. However, the term urban is used generally to include all of these areas. OMB addresses urban as metropolitan with a population of 50,000 or more and as micropolitan with a population of at least 10,000 but less than 50,000 (HHS, 2020).

As with the definition of rural, the participant will provide the categorization of students as urban. This ability to define terms may allow the participant to communicate perceptions and experiences based on a personal lens that acknowledges context. This approach may prevent the actual, potential, or perceived limitation of participants as well as research bias from labeling of populations.

Suburban is another term that will be defined by the participant. Official definitions of areas of suburban use language like micropolitan (HHS, 2020), urbanized area, and urban fringe (BC, 2021) to describe areas that are often termed suburban. The United States Department of

Agriculture (USDA) (2008) refers to metro areas as those surrounding urban centers. Participants may have perceptions of their students and communities that defer from any of the multiple definitions of area. As with *urban* and *rural*, the participant will define the term for the purposes of this research.

School Nurse will be used to indicate Registered Nurses for this work. While Licensed Practical Nurses also function in various schools and systems, the focus of this work is on the RN. In Tennessee, the LPN in the school setting must work under the guidance of the RN. Tennessee defines the ***School Nurse*** as a professionally educated RN whose role it is to strengthen and facilitate the educational process by improving and protecting the health status of the students (Watson, 2019, p. 90).

Sexual Health Education (SHE) is a broad term that encompasses any education concerning sexual health. SHE in Tennessee is focused on sexual risk avoidance, which is the terminology used to describe abstinence behaviors (Romines, 2019). However, the CDC (2020) describes quality SHE as providing students with the knowledge and skills to help them be healthy and avoid human immunodeficiency virus (HIV), STD, and unintended pregnancy. A SHE curriculum includes medically accurate, developmentally appropriate, age appropriate, culturally relevant content and skills that target key behavioral outcomes and promote healthy sexual development. Further, SHE should be consistent with scientific research and best practices; reflect the diversity of student experiences and identities; and align with school, family, and community priorities. SHE in Tennessee varies across the state.

Concepts

Concepts used in the research are defined for clarity. Concepts represent those derived from the combined theories that framed this research.

Positive & Negative Stimuli are anything which promotes a response. Stimuli, either positive or negative are the point of interaction between the person and the environment (Roy, 2009, p. 27). Actions or lack of actions in the environment can promote various responses from individuals and groups.

Health Behaviors are any behaviors that impact the health of the individual or the community (Roy, 2009). Health behaviors can result in positive or negative consequences for the individual and/or the community.

Adaptive Behaviors are those behaviors that promote the integrity of the human system to meet the needs of survival, growth, reproduction, mastery, human transformation, and environmental transformation (Roy, 2009, p. 39). Roy (2009) further defines adaptive behaviors as improving the integrity of the human system which then improves society in general (pp. 39-40). Adaptive behaviors are viewed by RAM in a positive light with a positive impact for the individual and the community.

Self-Concept represents the whole of thoughts and emotions that an individual experiences about self at any given time (Roy, 2009, p. 89). Self-concept is ever-changing as the person experiences stimuli from the environment. This dual influence means that self-concept in impacted by both internal and external influences.

Interdependence is a means of achieving relational integrity through sharing love, respect, and value among individuals while working within the social context of the larger community (Roy, 2009, pp. 44-45). While RNT addresses issues related to self-reliance, interdependence is seen in RNT in concepts like insider, lay care network, and familiarity (Lee et al., 2018).

Group & Individual Identity refers to how the person views self both alone and as a member of a group. In order for the group and individual identities to have strong foundations, they must have underlying honesty. The individual demonstrates shared attributes of identity with the group (Roy, 2009).

Policy & Political Influences are complex and come from various directions and institutions. These represent means by which power is exerted over individuals and societies in a general manner (Foucault, 2000). Policy and political influences impact the context of any situation. The school nurse is no exception and deals with policy and political influences from multiple directions.

Culture & Cultural Influences are behaviors and beliefs of a particular group which can be delineated by age, ethnicity, society, or area (Flexner & Hauck, 1993, p. 488). The behaviors and beliefs can act as stimuli to impact individuals and groups as well as impact responses. Zwilling (2018) notes the impact of rural culture for both the practitioner and the patient.

Lack of Anonymity is the inability to remain nameless or unknown in the current situation (Lee et al., 2018). The concept is important in RNT and in rural communities. People are aware of each other on intimate levels that prevent anonymity and hinder confidentiality which might be attainable in urban areas.

Role Diffusion is defined in the original work of RNT as related to the health care provider, in this case the school nurse, taking on multiple roles (Long & Weinert, 1998). The rural school nurse is taking on multiple roles that might not be assigned to or expected of a school nurse in a nonrural area.

For the school nurse and the students served by that nurse, role diffusion and lack of anonymity can move out of the school and into the community. In rural areas, the nurse is likely

to encounter those who are patients in settings outside of health care, like church and community organizations (Long & Weinert, 1998). These multiple connections can strain the nurse-patient relationship for all parties.

Significance

The perceived roles, experiences, and responsibilities of the school nurse in the sexual health and SHE of secondary students are not thoroughly represented in the literature. Sexual health education in public schools in Tennessee is inconsistent among school systems (Romines, 2023). State law requires that abstinence be taught as the primary method of sexual risk avoidance with schools being allowed to adopt an abstinence-only curriculum per Tennessee Code Annotated (TCA) Title 49 Chapter 6 (TDoE, 2021). The CDC (2023b) provides data that supports the method to decrease sexual risk behaviors and to delay the onset of becoming sexually active through medically accurate, age appropriate, and culturally relevant sexual health education curriculum. Tennessee's public schools do not seem to be using this data to guide SHE in the public schools (Romines, 2023). At the same time, Tennessee is experiencing increases in STD with rates higher than the national average especially among adolescents and young adults (CDC, 2023c).

Chapter 2. Literature Review

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. A thorough review of the literature was vital to understand the current knowledge and perceptions of concepts considered in the research (Thomas & Pollio, 2004). A review of the literature was necessary to demonstrate how school nurses are represented and heard in the research. The very limited research on sexual health and sexual health education from the perspective of the school nurse led to the need for an exploration of the perceived roles, influences, impact, and experiences of school nurses in the sexual health and sexual health education of public-school students in Tennessee. The lack of incorporation of school nurses and their voices in the research was clear in the literature review.

Methods

Multiple databases were included in the search. The Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, Nursing and Allied Health Comprehensive, Health Source: Nursing/Academic Info, and PubMed were used in the literature search. PubMed searches are separate from the others based on availability through the ETSU online search engines provided by the Sherrod Library to all students. The search was limited to works available in English. Searches were reduced to journal articles and dissertations after the initial review of returns. Journals were peer-reviewed. Searches were not limited by date because of the limited number of articles found related to the topic. The dates of articles demonstrate the recognition of the role of the school nurse in the sexual health and sexual health education of

students as well as the continued lack of research that exists regardless of the identified need for more research (McGrath & Laliberte, 1974).

When reviewing the literature on these topics, studies that include the school nurse were limited, often old going back to 1974, or from countries outside the U.S. A search using "sexually transmitted diseases or sexually transmitted infections or std or STD" AND "adolescents or teenagers or young adults" yields over 6,000 articles before culling. Simply adding AND "school nurse" to that same search cuts the number of returned articles to 42 before culling with articles going back to 1974 (McGrath & Laliberte, 1974). In fact, the first article in the list does not involve the school nurse in the research but is about adolescents and their families (Kao & Manczak, 2012). Removing the "adolescent" portion of the search and using only the "STD" and "school nurse" portion of the search gleans only 75 results before culling. Ultimately, 18 articles were included in the literature review based on the search using the variations of sexually transmitted diseases, adolescents, and school nurse. A table including those 18 articles appears in Appendix A.

Conceptual Frameworks

Roy's Adaptation Model (RAM) is a very highly developed and widely used theoretical framework in nursing (Roy, 2009). Rural Nursing Theory (RNT) is designed to provide a framework for nursing within the context of rural communities (Long & Weinert, 1989). Both of these theories together provided a strong but flexible framework for a qualitative study using Critical Discourse Analysis of the experiences of school nurses concerning the sexual health and sexual health education of students in various Tennessee communities.

RAM and RNT were combined to create a framework to support the unique aspects of individual, school nurse, public health, and power structures. The concepts of health behaviors,

self-concept, and group and individual identity are used to frame the interpretation of self for the individual. The concepts of positive and negative stimuli, lack of anonymity, and role diffusion combine to frame the interpretation of roles for the school nurse as it encompasses the health of individuals. Interpretation of public health is framed by the concepts of policy and cultural influences, interdependence, and lack of anonymity. Political and cultural influences including religion are used to frame the interpretation of existing power structures.

The school nurse represents a present and available health practitioner in communities that can be lacking adequate health care providers. The school nurse as an arbiter of school health provides a link between individual health and public health in rural communities that may not be present or necessary in urban communities (Long & Weinert, 1989). The school nurse is an important resource for both individual and community health especially as it relates to the issues of sexual health and STDs. The school nurse recognizes the nature of culture and community while being available to students to impact health behaviors in general and sexual health behaviors more specifically.

RAM in the literature

RAM is a well-established and widely used grand nursing theory. Using RAM as the only search criteria in CINAHL alone with the limitation of publications in English only, over 900 results are available. Almost 700 of those results are in academic journals and almost 200 are in dissertations. When scanning the list of articles, many of them have the name of the model in the title in some form. Adding “qualitative research or qualitative study or qualitative methods or interview” to the search decreased the number of available articles to 250 which demonstrates the models use for qualitative work. When limiting the search to RAM and “rural”, the results dropped dramatically to 18. Adding in the third search criteria of “qualitative research or

qualitative study or qualitative methods or interview", the number was cut in half to nine. The four dissertations on the results list were not qualitative studies. Only the five journal articles actually met the three search criteria.

Increasing the databases to include PsycINFO, Nursing and Allied Health Comprehensive, and Health Source: Nursing/Academic Info yielded over 1,300 results with more than 1,000 academic journal articles and more than 200 dissertations when searching RAM alone. Adding the qualitative aspect decreased the available items to 344. Using "rural" with RAM, the results drop to just 28. When combining all three in the search criteria, only 16 options appeared with several being different presentations of the same research such as journal articles published from dissertation work.

Changing the search criteria to RAM and "sexual health or sexual health education or sexuality or sexual wellbeing" resulted in just 19 items in English. Five of the 19 items represented qualitative work. None of the work included anything about populations under 18 years of age. Increasing the search to include the databases PsycINFO, Nursing and Allied Health Comprehensive, and Health Source: Nursing/Academic Info yielded a total of 32 results. Including all databases yields only four more possibilities at 36 results.

Searching PubMed for RAM returned 251 potential articles. Again, many of these had the name of the model or some form of it in the title. Many of these 251 items were duplicates of those found in CINAHL, PsycINFO, Nursing and Allied Health Comprehensive, or Health Source: Nursing/Academic Info. Adding the search criteria of "qualitative research or qualitative study or qualitative methods or interview" and limiting to items in English cut the list to 26 items. Only about half of the items returned represented actual qualitative research.

When searching RAM and "school nurse or school health nurse or school nursing" in all mentioned databases, less than five of the results returned have any inclusion of the school nurse as a player in the research with one author publishing multiple articles from the same initial research (Frame, 2003; Hennessy-Harstad, 1999).

When searching for RAM with the school nurse and sexual health criteria, no results were found in any database except PubMed. PubMed identified six potential references but only one marginally met the search criteria. That work was published more than 20 years ago, was survey work, and occurred in India (Chatterjee et al., 2001). Adding rural to the PubMed search returned zero possible items for review.

RNT in the Literature

RNT is a middle-range nursing theory that is not often used or identified in the literature. Searches for RNT conducted in CINAHL, PsycINFO, Nursing and Allied Health Comprehensive, and Health Source: Nursing/Academic Info followed by a PubMed search yielded much more limited results. The first four databases yielded 119 possible results. Of those, 60 were books that referenced the original work on RNT by Long & Weinert (1989). Reviewing the 40 journal articles and 14 dissertations, 11 journal articles and zero dissertations actually met the search criteria. Of the 11 published articles, five were items presented at the same conference. Only one is an article that was not included in the book *Rural Nursing: Concept, Theory, and Practice,* edited by Winters and Lee (2018). PubMed search returned 554 possible results. Most results are not related to Rural Nursing Theory but, instead, are about nursing in rural settings. Results related to RNT are the same as those found in the other databases.

Search criteria were added in the same combinations used for the RAM searches. Using the "qualitative research or qualitative study or qualitative methods or interview" terms revealed one article by Lee and Winters (2004) that actually met the criteria. Using the terms "sexual health or sexual health education or sexuality or sexual wellbeing" did not yield any results. Using the terms "school nurse or school health nurse or school nursing" produced 14 possible results which, upon review, did not meet the criteria of school nurse. The use of RNT in the literature was highly limited.

Critical Discourse Analysis

Critical Discourse Analysis is often used in social and behavioral sciences, linguistics, and literature as a qualitative methodology (Gee, 2014). However, CDA is rarely used in nursing research (Smith, 2007). When reviewing the literature for the use of CDA in nursing research, the initial review suggests 505 academic journal articles and 13 dissertations. Of the 13 dissertations listed, five were relevant to the search representing the use of CDA for nursing research. These five dissertations appear again in the review of journal articles as works created from the dissertations. Of the 505 journal articles, just over 400 were published between 2007 and 2022. The year 2007 is when Smith (2007) published her article on the benefits of CDA for nursing research which had previously been used minimally. More than 300 of the journal articles have been published in the last ten years. Less than half of that number were published in the past five years.

While the use of CDA in nursing research increased in the past decade, its use for qualitative research remains limited. Searching CDA, nursing, and "qualitative research or qualitative study or qualitative methods or interview" provides 249 potential articles to review. On review, many articles were not reports of actual nursing research. Changing the search from

"nursing" to "nursing research" dropped the number to 38. Of the 38, only 12 represented reports of research. Several of these were reviews of historical or secondary data such as textbooks and journal articles (Bond, 2013; Buus, 2005), open online posts (Hardin, 2003), or other documents (Burnett et al., 2015). Few items were found that include CDA with nursing and the other search limiters used in the review process: "sexual health or sexual health education or sexuality or sexual wellbeing" or "school nurse or school health nurse or school nursing." Only one article met the search criteria by including what the role of the school nurse could be based on the research rather than actively including the school nurse (Evans-Agnew, 2016).

With the limited use of CDA in nursing research, Traynor (2006) and Buus (2005) both pointed out inconsistencies in the use of CDA in the nursing research. Traynor (2006) suggested that researchers stated that they are using CDA when in reality they were using more traditional methodologies. Traynor (2006) believed that authors should provide details about their approach to CDA in an effort to demonstrate rigor in the methodology; however, CDA is not considered prescriptive in nature (van Dijk, 2013).

Adolescents and Sexuality

The literature concerning adolescents and sexuality in general was extensive. Tens of thousands of potential journal articles and dissertations were available. The topic needed to be limited significantly. Limiting the search by adding "sexually transmitted diseases or sexually transmitted infections or STI or STD" cut the number to just under 4,000. That was still too great a number. Adding "school nurse or school health nurse or school nursing" to the search cut the number of results to under 300. Only a fraction of the results were identified as qualitative research.

The majority of the existing literature was quantitative. Some of the literature available about adolescents and sexuality including sexual knowledge and sexual health education was based on secondary data from sources like the Youth Risk Behavior Surveillance System (YRBSS). For example, Baiden et al. (2020) used the data from the 2017 YRBSS to examine the impact of sexual orientation and race on suicidal ideations among adolescents. Fernandez et al. (2021) used the data from the 2017 YRBSS to examine substance use among high school students with non-heterosexual orientation. More quantitative work used surveys (Samkange-Zeeb et al., 2013), instruments (Jaworski & Carey, 2001), or educational or other interventions (Millanzi et al., 2022). The research with adolescents and STDs was so extensive and varied because of the continued public health crisis of high STD rates among this population.

In Brazil, Beserra et al. (2008) used school nurses to deliver SHE content to a group of 10 adolescent females. This qualitative research used the school nurse but did not otherwise involve or assess the school nurse. The school nurse was used as a tool but was not a subject of the research. Harper et al. (2016) used adolescents as participants in their qualitative work to address student access to and use of school-based health services for multiple health issues including sexual health needs. In a qualitative study, Rose and Friedman (2016) discussed the missed opportunity for using school nurses to address the sexual health and SHE needs of African American adolescents.

School Nurses, Sexuality, and Rurality

Changing the search to "school nurse or school health nurse or school nursing" with the additions of "sexual health or sexual health education or sexuality or sexual wellbeing" and "rural or rural areas or rural communities," a potential 75 articles were reviewed. Nineteen articles were deemed to have some relevance to the topic. Of those 19 articles, 13 were reports of

quantitative work, two did not present research but information, and three reported being mixed methods. None of the articles identified were only qualitative. None focused on the voice of the school nurse.

In two of those mixed methods research projects, school nurses were the participants interviewed for the qualitative portion of the research. Salau and Ogunfowokan (2019) interviewed school nurses and compiled a list of identified challenges in working with adolescent women in Nigeria. This research provided excerpts from the interviews but no discussion of qualitative analysis or methodology. In the work by Johnston et al. (2015), six school nurses were interviewed as a part of a pool of 32 total health providers in Australia. The responses of the nurses were included with all the other health care providers. While this work does explain in more detail their qualitative methods, the voice of the school nurse was not heard separately but was diluted with the experiences of five times as many other providers.

Several of the articles used surveys or questionnaires to get information from school nurses. Smith et al. (2020) addressed issues of sexual health education and provision of condoms in rural Kansas schools. The study found that nurses supported condom availability and provision of condoms and information as part of their practice. The school nurses identified barriers to their work in helping students decrease the risk of STDs and unintended pregnancy.

Dickson et al. (2020) surveyed nurses as part of a larger group including teachers and administrators about sexual health education policy in New Mexico. This resulted in the identification of the large variability in the implementation of SHE because of the vast differences that occur at the local level across the state as well as both barriers to implementation of adequate SHE and the need for strong and involved stakeholders in the process. Then, Dickson and Brindis (2021) used the data from the nurses only with the Street Level

Bureaucracy Framework to identify the obstacles the school nurses face in implementing SHE and SHE policy. These works each pointed to the importance of the school nurse in SHE.

In 2006, Westwood and Mullan completed quantitative survey work with school nurses in the United Kingdom. Their work determined that many school nurses had insufficient knowledge to effectively help students with sexual health needs. Yoder et al. (1997) found similar results with school nurses related to working with children with human immunodeficiency virus (HIV). Nurses felt contextually and educationally underprepared to fulfill their roles with this group of students within the school.

Several of the articles did not include school nurses as participants but provided results or information designed to assist school nurses with various aspects of sexual health or sexual health education for students. The prediction of condom use among rural youth could be applied to interventions considered and used by school nurses to promote safer sexual practices (Haley et al., 2012). The instances of rural students exchanging sex for drugs in Canada led researchers to indicate the need for school nurse intervention and education (Homma et al., 2012). Hulton (2007) completed work that helped establish an effective evaluation of a teen pregnancy prevention program for school nurses to use with students. The voice of the school nurse was absent in these and many other studies found in the review.

Acknowledged Need for More

Researchers acknowledge the need for more research involving the school nurse and the lack of information concerning the school nurse and have acknowledged those needs for decades. McGrath and Laliberte (1974) published the results of a survey of school nurses in Massachusetts. They found limited knowledge of venereal diseases, now called STDs, among school nurses surveyed. Over 40 years ago, the authors stated, “That little dealing specifically

with the school nurse and her role in venereal disease education and/or counseling was found in the literature was particularly surprising because of the significance of the problem among teenagers" (McGrath & Laliberte, 1974, p. 34). Similar statements were reiterated over the decades concerning school nurses (Kao & Manczak, 2012).

In Kansas, researchers surveyed 87 secondary school nurses. They found that, while school nurses did have a role in sexual health of adolescents, barriers exist including the personal beliefs of the nurse (Smith et al., 2020). The authors conclude that, "the abstinence-only curriculum and a perceived lack of parental, community, and administrative support were barriers to school nurses taking a more active role in the prevention of STD and unintended pregnancy in Kansas' teens" (Smith et al., 2020, p. 392). The need for more work was acknowledged in the research.

A survey of teachers, administrators, and school nurses in New Mexico was one of the most recent works to include school nurses related to SHE. Dickson et al. (2020) used a survey previously used in research but slightly modified. The research concluded that more preparation and support is needed for personnel including school nurses while policy needs to be modified to help create consistency in SHE across states and the country (Dickson et al., 2020). The researchers also acknowledged the continued lack of research and the need for more.

Gap in the Literature

The available literature that includes the school nurse in relation to STDs among the adolescents is limited. The literature that exists frequently involves the school nurse only tangentially. The school nurse was the subject of surveys but was rarely a participant in a qualitative interview. The two studies that involved the interview of nurses were both conducted outside the US. The voice of the school nurse related to STDs was almost absent. The voice

school nurse in the US was not represented in the research as it relates to experiences with the sexual health and sexual health education of students. The voice of the school nurse may lead to new insights and avenues to help address the problem of sexually transmitted diseases among young people. Appendix A provides a table of the limited peer-reviewed journal articles involving or mentioning school nurses and sexuality or sexual health education.

Summary

The school nurse has been recognized as a person in a unique position to have a positive impact in the sexual health and sexual health education of students for decades. The position of the school nurse in rural communities in particular is very important as the school nurse represents a present and available health care access point for students who may otherwise experience barriers. The role of the school nurse was measured in the literature in primarily quantitative ways using surveys and questionnaires. The voice and experience of the school nurse related to the sexual health and sexual health education of students was all but absent in the literature. Research needs to focus on and include the unique voice of the school nurse in the sexual health and sexual health education of students from various communities.

Chapter 3. Methodology

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. The limited research on sexual health and sexual health education from the perspective of the school nurse led to an exploration of the roles, influences, impact, and experiences of school nurses in the sexual health and education of public-school students in Tennessee.

The qualitative research used a nursing theoretical foundation to help support the research. An iterative and reflexive approach was used to analyze, interpret, and explore the perceived roles and experiences with the social issue of the sexual health and sexual health education of students in Tennessee through the lens of the school health nurse considering the context of social, cultural, political, and policy influences. Data collection was conducted through a survey that included textual responses as well as demographic information and individual interviews. Issues concerning participants and researcher, ethics and security, and rigor and trustworthiness are discussed here.

Purpose

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. The limited research on sexual health and sexual health education from the perspective of the school nurse exposed a significant gap in the literature and demonstrated the need for an exploration of the

experiences, roles, influences, and impact of school nurses in the sexual health and the sexual health education of public-school students especially those from areas like Tennessee who are at risk for exposure to sexually transmitted diseases as evidenced by the rising rates of STDs among 15-24-year-old people.

Research Questions and Aims

How do school nurses working in Tennessee public schools perceive their roles in the sexual health and the sexual health education of students from rural, suburban, and urban communities?

Aim 1: To explore the perceptions of school nurses about their roles in the sexual health and sexual health education of students in Tennessee public schools.

Aim 2: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in rural areas of Tennessee.

Aim 3: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in suburban areas of Tennessee.

Aim 4: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in urban areas of Tennessee.

Aim 5: To compare, contrast, and interpret the perceptions and experiences of public-school nurses from rural, suburban, and urban areas of Tennessee related to the sexual health and sexual health education of their students in the context of their societal, cultural, and power structures.

Assumptions

Several assumptions existed within the research:

- School nurses have the knowledge and self-efficacy to participate effectively in the sexual health and sexual health education of students.
- Societal and cultural mores in Tennessee influence and impact sexual health and sexual health education of those subjected to those mores.
- The sexual health and sexual health education of students in Tennessee are impacted by both health policy and social policy.
- Individuals and societies are driven, influenced, and constrained by power and knowledge.

Research Design

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. This research was qualitative and was exploratory, interpretive, and descriptive in nature. The researcher used iterative and reflexive, or hermeneutic, processes in the analysis of data as it was received. The researcher used a purposive sample of school nurses who work with students from various communities across the state and who work in Tennessee public schools.

Theoretical Foundation

Two theoretical frameworks supported the research: the Roy Adaptation Model and Rural Nursing Theory. The Roy Adaptation Model (RAM) is a very highly developed and widely used theoretical framework in nursing (Roy, 2009). Rural Nursing Theory (RNT) is designed to provide a framework for nursing within the context of rural communities (Long & Weinert, 1989). Both of these theories together provided a strong but flexible framework for this

qualitative study using Critical Discourse Analysis of the experiences of school nurses concerning the sexual health and sexual health education of students in Tennessee communities as Tennessee youth are experiencing high and increasing rates of sexually transmitted diseases.

RAM supported this qualitative research through recognition and description of adaptive systems that help to change output behaviors. RAM uses the interconnectedness of the adaptive modes impacted by individual coping processes that lead to behavioral output (Roy, 2009). The individual adapts in various ways based on the manner in which the person is currently experiencing and coping with the STD and experiences influencing the person, health, and environment (Roy, 2009). RAM addressed the adaptive modes of physiological/physical, self-concept/group identity, role function, and interdependence (Roy, 2009). RAM presented strong philosophical, scientific, and cultural assumptions to support individuals and groups as they experience adaptations in person, health, and environment. RAM perceived the person as a thinking, feeling, creative, and interdependent being with complex relationships with others, the environment, health, and spirit/God (Roy, 2009). Additionally, RAM allowed for the recognition of the influence of culture as important when working within the boundaries of various populations. These concepts represent connectives in CDA.

RNT helped to further define the cultural impact on the population. Concepts specific to rural populations included health as the ability to be productive and self-reliance as the ability to provide for self and family (Lee et al., 2018). Health is further influenced by isolation and distance from practitioners (Lee et al., 2018). RNT addressed the concept of a lack of anonymity and role diffusion for nurses and other health care providers in rural communities which can have an effect on highly personal health issues like sexual health and STD. The concepts of

anonymity and role diffusion in particular were considered when working with members of rural communities on the personal issues of sexual health and sexually transmitted disease.

The school nurse represents a present and available health practitioner in communities that can be lacking adequate health care providers. The school nurse and school health provide a link between individual health and public health in rural communities that may not be present or necessary in urban communities. The school nurse is an important resource for both individual and community health especially as it relates to the issues of sexual health and STD. The school nurse is uniquely positioned to impact the health behaviors in general and the sexual health behaviors of students using a recognition of the nature of the rural community culture. A model of the merged theories for use in this research is in Figure 1.

Critical Discourse Analysis

Discourse Analysis is a methodology that focuses on the study and analysis of language, both verbal and written, to help explore meaning within the social and cultural context of a situation (Wetherell et al., 2001). Critical Discourse Analysis is a way of exploring both visible and hidden ways in which language exposes social powers and structures within their contextual reality (Rau et al., 2018). CDA uses multiple approaches to link the language of a community and its social structure through contextual analysis (Smith, 2007). CDA is used across disciplines in various ways but has core ideas that underpinned the research methodology which included addressing the role of power in the social reality, interrupting the existing social inequalities, and using reflexivity and critique (Rau et al., 2018, p. 299).

Using CDA, the researcher worked to glean information in the form of codes, categories, and themes from the interviews and survey data. CDA was used to identify the various commonalities that arose within the role of the school nurse whose voice is underrepresented in

the literature on the sexual health of the adolescent especially in the context of the Tennessee public-school student. CDA considers complex societal, dialectical, and transdisciplinary relationships (Fairclough, 2010). Fairclough (2010) addresses the concept that CDA is not just concrete analysis of discourse, not just general commentary on discourse, and not just descriptive (p. 10-11). Additionally, CDA needs to be part of a systematic and transdisciplinary analysis that includes relational elements, involves a systematic analysis, and address social issues with possible methods of mitigating those social concerns (Fairclough, 2010, p. 10-11).

CDA was an appropriate choice for this research because of the unique yet flexible approach to addressing issues within a social context. The use of CDA was supported by its focus on power, social inequalities, and reflexivity (Rau et al., 2018). Evans-Agnew et al. (2016) demonstrated support for the use of CDA with issues that arise from, are reflective of, or are influenced by health or social policy. Two of the assumptions within this research were that the sexual health and sexual health education of adolescents in Tennessee are impacted by (1) health policy and (2) social policy.

CDA uses language analysis of both verbal and textual data to describe, interpret, and explain when working with sociocultural concepts and issues (Fairclough, 2010). Smith (2007) notes the importance of CDA for use with the topics that often exist within research that can be highly complex, highly emotional, or often both. The use of CDA in these instances may help identify commonalities and assumptions that may lead to resolution of these often highly charged issues (Smith, 2007).

CDA required the researcher to address issues of vocabulary, grammar, cohesion, and text structure (Fairclough, 2010). Further analysis addressed the textual properties of word meaning, wording, metaphor, theme, connectives, and interaction (Fairclough, 2010). CDA

required that the researcher address the analysis through the sociocultural lens of the participant (Fairclough, 2010). A primary assumption of CDA is that individuals and society are driven, influenced, and constrained by power and knowledge (Fairclough, 2010). This and other assumptions of CDA are influenced by the teaching of Foucault. Foucault emphasizes the impact of socially constructed power and knowledge on the individual (Dahnke & Dreher, 2016). These underlying concepts directly connected to this research.

Researcher

"Any study (qualitative or quantitative) is only as good as the researcher. In qualitative research, this is particularly so because *the researcher is the instrument*" (Richards & Morse, 2013, p. 216). Working with the assumption that the researcher is the instrument, the researcher used multiple means to identify researcher assumptions throughout the research process beginning prior to any participant interviews. The researcher worked with the dissertation chair to identify problem areas as they developed and to monitor for influences of researcher assumptions in the research process. Various methods for avoiding pitfalls associated with researcher assumptions and potential biases are identified throughout this chapter.

Ethics

Protection of Participants

The research was approved through the Institutional Review Board (IRB) at East Tennessee State University (ETSU). The IRB at ETSU approved the informed consent process that was used with every participant. The interview participants were provided copies of the transcripts of individual interviews. Personal communications were sent to the person who provided the information. All participants were provided an opportunity for member checking which allowed them to verify that their words were transcribed correctly (Lincoln et al., 2018).

Participants had the authority to remove themselves and their data from the study at any point in the process, and the researcher-maintained transparency in the process (Wood & Ross-Kerr, 2011).

Ethics in research requires a broad lens. Basic principles of ethics require that research with human subjects addresses the principles of respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [NCPHS], 1979). Special considerations for vulnerable populations are also taken into account. Persons most impacted by the increases in STD are adolescents aged 15 to 24 (CDC, 2021). Those under 18 are considered a vulnerable population (NCPHS, 1979). This was one reason to begin research with those who provide care to these students rather than attempting to work with a vulnerable population when the research is still in early stages.

Confidentiality was a primary consideration for this research. Potentially, participants could be identified because of the small participant pools used in most qualitative research and the specific nature of the research. School nurses are not a large group, with a report of 84,200 Registered Nurses (RN) working in public schools in the US (Buttner, 2021). That is only about 2.6% of the 3.2 million RN estimated to be actively working in the US, according to the American Association of Colleges of Nursing (AACN, 2019). When those numbers are limited by state, region, or county, participants might lose confidentiality in the process. Addressing the risk-benefit ratio, the benefit of reversing the trend of rising STD rates for adolescents appeared to outweigh the risks of potential exposure of participants.

In all reporting, identifying information is not used. Participants were identified by grand division of the state: East, Middle, West. This decision came from the low number of participants. For differentiation purposes, participants were referred to using numbers. While the

use of numbers lacks the individuality that is foundational to qualitative research, the use of numbers helped to further increase the participants' perceptions of confidentiality in the reporting of results.

Protection of Data

Data is protected according to the policies of ETSU, the researcher's governing institution. All data collected is stored on a protected external hard drive. Data was used in a protected environment with no identifying information. When not in use, data is stored using the required two lock system. The external hard drive is stored in a fire-resistant lock box then locked in a cabinet.

Data was processed using systems approved by ETSU. The Research Electronic Data Capture (REDCap) and ATLAS.ti systems are secure systems provided and supported by the governing institution. Using these systems allowed for additional data protection during collection and analysis.

Data will be appropriately stored by the researcher and the governing institution for required time limits based on guidelines established by ETSU and any additional entities that may have a stake in the research.

Participants

Sample

The target population for this study was licensed nurses who work in public schools in Tennessee. This research focused on the Registered Nurse (RN). In Tennessee, school systems must have a supervisory RN in each public-school system health network (McKeever, 2020). All school health Registered Nurses working in the public schools from communities across Tennessee were eligible to participate. While the 15 and older age range is the most impacted by

increases in rates of STDs, all RNs in these public systems would be eligible because of the nature of the study (CDC, 2021). A purposive sample was identified through the use of public-school websites that identified the school health teams along with contact information. Some of this information was openly and publicly available.

Sampling Method

Purposive sampling was used for this study. A purposive sample was identified through school websites which have information publicly available. Further recruitment came from participants recommending other participants or RNs identifying school nurses in an effort to snowball participants and participation. Attempts were made to recruit participants from various communities around Tennessee to represent demographic variations and to help reduce the potential for researcher bias in the sample (Arcury & Quandt, 1999). As deficiencies were noted based on type of community such as urban and suburban, and area of the state, targeted recruitment was attempted in those underrepresented areas.

Recruitment

Participant recruitment took place over a six-month period of time from May to October 2023. The Institutional Review Board (IRB) at ETSU approved recruitment via social media platforms and electronic mail for the study.

Social Media

Recruitment efforts started on Facebook© and Instagram© first. Recruitment materials were made public on these platforms so that they could be accessed and shared by anyone. Recruitment materials were actively shared by colleagues, friends, and family across the state in an attempt to reach as many potential participants as possible. Registered nurses were tagged in social media posts so that they would see the material. Those nurses tagged more nurses,

especially any known school nurses, in a snowballing attempt. Fellow graduate students were provided recruitment materials. They also shared the materials to help reach potential participants across the state since classmates live and work in various communities across West, Middle, and East Tennessee. On Facebook©, the researcher's profile picture was changed to her professional headshot, and her cover photo was changed to an East Tennessee State University logo to add credibility to the recruitment material.

One interview participant was recruited via Facebook©. A second participant connected via Facebook©. That person did not finalize an interview even though they communicated with the PI on Facebook© over a period of several months.

Electronic Mail

Electronic mail recruitment communications were sent directly to school nurses using contact information on school and school system websites. GreatSchools (n.d.) is a not-for-profit organization that provides hyperlinks to school districts in every U.S. state. GreatSchools (n.d.) was used to access webpages for 145 school districts in the state of Tennessee. Some of the district webpages provide direct contact information for their school nurses. Other school districts only provide names or general contact information for the school.

The Tennessee Board of Nursing (TBN) maintains a list of names and electronic mail addresses for Tennessee registered nurses. After nine electronic communications over a period of several months, the researcher was able to obtain a copy of that list. The list includes all registered nurses licensed in the state. The spreadsheet has over 150,000 entries. The list does not include nursing specialties; so, names cannot be sorted to view only school nurses; however, the names of school nurses found on the school or district websites could be cross referenced with the comprehensive list from the TBN. Using this method, over 700 electronic communications

were sent out. Some nurses share the same or similar names; so, recruitment materials were sent to registered nurses who were not school nurses. The list from TBN could be sorted by address. Recruitment materials were sent out to RNs in areas from which responses were low or non-existent in an effort to increase overall participants as well as participation from those underrepresented areas. This practice accounted for about 10,000 electronic mail recruitment attempts.

Additional Efforts

In an attempt to reach more school nurses, contact was made with the Tennessee Nurses Association (TNA), the Tennessee Association of School Nurses (TASN), and the Tennessee Department of Education Office of Coordinated School Health (CSH). These organizations have policies in place that do not allow for general emails to go out to their list serves to protect their memberships from excess and unwanted solicitations.

Using contact information on the TNA website, each of the 11 districts was contacted via the electronic mail links provided. One district responded to that communication, and the district representative provided some information as well as indicated that recruitment materials would be shared with the district membership.

Saturation

Data saturation is achieved when no new information emerges from the data using iterative and reflexive processes to identify codes, categories, and themes (Creswell & Poth, 2018). Richards and Morse (2013) discuss anticipating data saturation between six and 12 participants in qualitative research. Goals for this research were to have multiple interviews from rural, suburban, and urban school nurses along with REDCap data from more participants from those three types of communities across the state. The goal was for 30 to 50 completed surveys

and 10 to 20 interviews representing the diverse regions and communities across the state. This goal was not achieved.

Inclusion Criteria

To be included as a participant in the research, the individual was required to be a licensed Registered Nurse. These nurses were required to be currently working or have previously worked within the past 18 months as school nurses in a Tennessee public school or school system. Participants were required to be 18 years or older, be physically located in the United States of America, be able to read and write English independently, and consent to participation in the study.

Exclusion Criteria

To be excluded from participation, individuals would lack a Registered Nursing license in the state of Tennessee. If the potential participant did not work for a public school or school system currently or in the past 18 months, the individual was excluded. Any person under 18 years of age, who was not physically in the United States of America or was unable to read and write English independently was ineligible to participate. Any person unable or unwilling to provide informed consent was ineligible to participate.

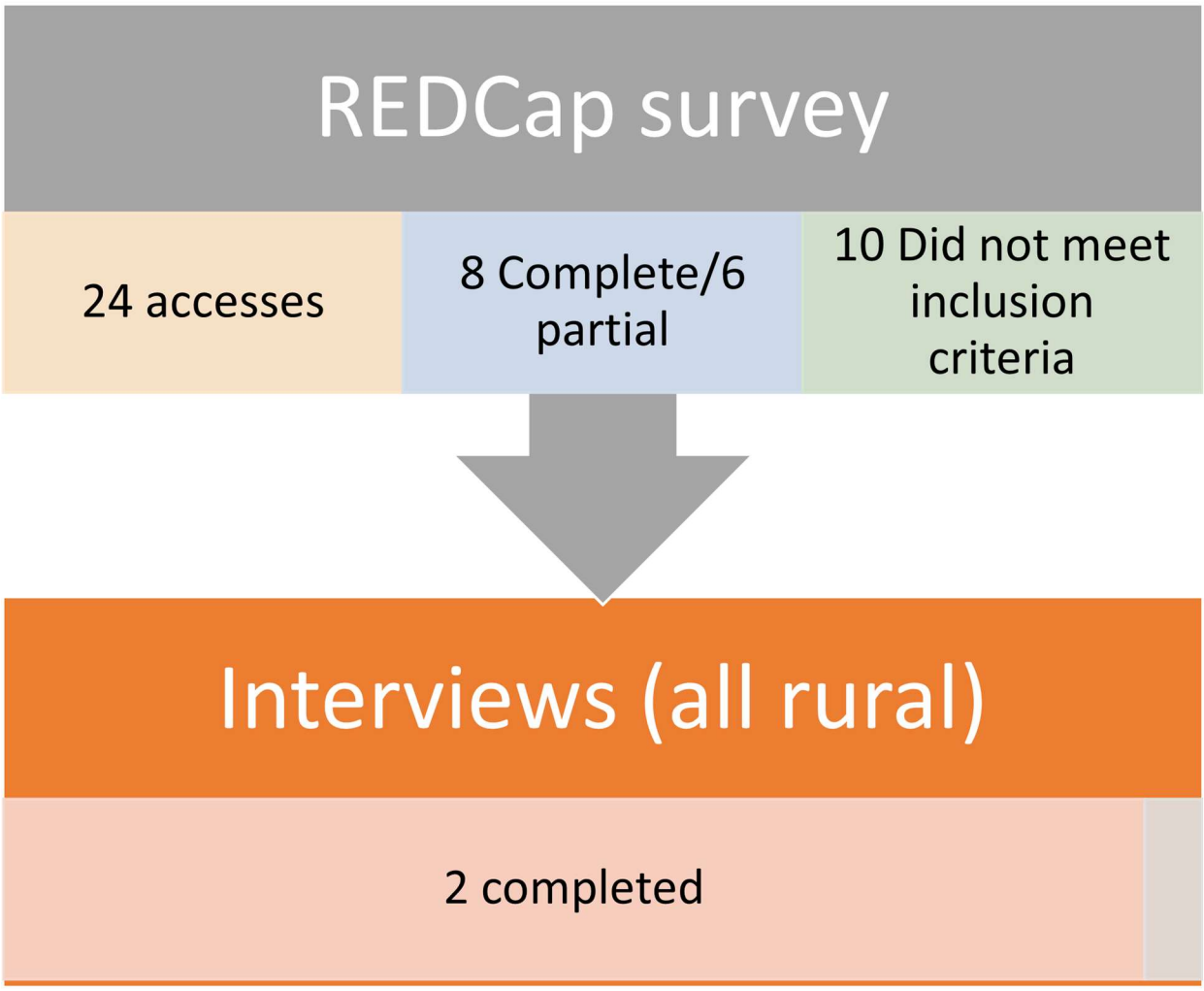
Protection of Human Subjects

As this study used human participants, the research was approved by the IRB of ETSU, the principal investigator's home institution, before recruitment began. The IRB approved the consent form and processes for the protection of the participants. All participants were adults capable of providing informed consent. No participants were anticipated to be from vulnerable populations. Research did not begin until IRB approval was received.

Figure 2 provides a visual of final recruitment results.

Figure 2

Final Recruitment Results



Instruments

Two different instruments were used in this research. The first was a survey that was administered through REDCap. These survey questions are in Appendix B. The second instrument was a set of guiding questions used in the semi structured individual interview. These guiding questions are in Appendix C.

The guiding questions were used during interviews to help the participant verbalize thoughts and feelings. The guiding questions were used to help provide direction to the

participant if any participant was having difficulty sharing experiences during the interview. These questions were not used to override or redirect the participant if that person was sharing their experiences related to the sexual health and sexual health education of students from Tennessee communities. The researcher attempted to encourage the participants to expand on their experiences as presented during the interview process. These open-ended questions were researcher developed and guided by the theoretical framework concepts of positive and negative stimuli, health behaviors, self-concept, interdependence, group and individual identity, culture and cultural influences, and policy and political influence. These guiding questions are focused on the research questions and available to help the participant if needed.

The REDCap survey was designed to add both demographic data as well as textual language data. Again, this survey was not used previously. The short answers in the survey were added to the data analysis. CDA methods allow for the use of both verbal and textual data in the research process. The identification of the county in which the participant works will allow for the retrieval of data about the community such as socioeconomic status, teen pregnancy rates, STD rates, rural, suburban, or urban status as determined by various agencies, racial composition, and high school graduation rates. This information was not added because of the limited participation with increased risk for breach of confidentiality such identifying information might provide.

Data Collection

Data collection for this research study occurred via multiple methods. First, demographic and textual data were gathered via survey questionnaire. The questionnaire was available through the secure REDCap system. Demographic data included information including age, gender, years working as a school nurse, level and type of involvement in sexual health and sexual health

education of students, number of students responsible for, and socioeconomic information for the school system in which the participant works. This demographic data was intended to be used to identify any trends or patterns among the participants, their responsibilities, and their various school systems. Also, the demographic information was used to describe the participants to provide a clearer picture of the sample (Holloway & Jefferson, 2016).

Second, more qualitative information was obtained through individual interviews. Individual interviews with school nurses from a variety of areas across Tennessee were sought because of the high or increasing rates of sexually transmitted disease among school-aged residents. The researcher had guiding questions available to help the participant if necessary. The researcher did use the guiding questions to help with participants who were hesitant with open sharing of information. The researcher did not interrupt the participant's narrative. The researcher attempted to use questions sparingly to elicit more information, provide clarification for the participant, or prompt the participant when needed. The researcher was the interviewer for all data collection. Member checking was conducted with each interview participant to verify the data collected.

Data collection occurred via digital conferencing software because of time, distance, and the potential need for measures to increase confidentiality by increasing privacy for participants. Individual interviews used Zoom© digital video conferencing software approved by the IRB for use. With participant knowledge and permission, interviews were both video and audio recorded to allow optimal accuracy with transcription; however, the impact of rurality on internet access and stability impacted the ability to use the software in this way as noted in limitations. The researcher/interviewer took field notes and practiced memoing to enhance audio and video recordings. The researcher made notes concerning participant non-verbal responses and reactions

when video was available. The field notes were used to address issues with participant comfort level with the topic during interviews because sexuality and sexual health education can be politically, socially, and morally charged topics in the geographical area of interest. These methods of data recording allowed for more accurate and thorough analysis of data into codes, categories, and themes using a process that was both reflexive and iterative in nature (Thorne, 2013).

Data Analysis

Data analysis for this qualitative work was completed using an iterative and reflexive process for analysis. Participants were given the opportunity to review their transcripts for accuracy and authenticity as part of member checking processes. Throughout the analysis process, the researcher used triangulation to help with verification of analysis that emerges.

The contextual data was identified through two primary means. First, the state codes were identified. The state codes were addressed and clarified through personal communication with officials at the Tennessee Department of Education with responsibilities with Coordinated School Health and school health law. Second, participants were asked to provide or address local policies related to sexual health and education in the REDCap survey as well as in individual interviews. Language from codes and policies were analyzed along with language used by participants based on issues of vocabulary, grammar, cohesion, and text structure (Fairclough, 2010). Further analysis addressed the textual properties of word meaning, wording, metaphor, theme, connectives, and interaction (Fairclough, 2010).

Researchers who use CDA point out that data analysis in CDA is not prescriptive in nature (Smith, 2007; Traynor, 2013). The researcher needs to acknowledge the text and the context in any analysis (Traynor, 2013). The research was conducted with a focus on: the time

period during 2023 when data was actively collected; the state and local laws and policies on sexual health education; the school nurse as an available resource for sexual health and education; responses provided by school nurses; different ways that words and meanings were used by players in the research (van Dijk, 2013). Further, CDA attempts to address analysis from a broad and inclusive perspective. Because of this broad and inclusive perspective, the researcher needed to take care to acknowledge personal influences and potential assumptions or biases. The researcher worked to keep analysis inside the discourse including the influences of contextual factors but avoiding the imposition of influences from the researcher or other forces outside the issues included in the discourse (Traynor, 2013).

The researcher did not use a priori, or pre-determined, codes, categories, or themes to avoid assumptions that could arise from such (Miles et al., 2020). All codes, categories, and themes were linked directly to specific participant statements from the interviews or survey responses. The data was organized using ATLAS.ti computer-assisted qualitative data analysis software (CAQDAS) (ATLAS.ti, 2020). This software was used to organize the data to allow for the ability to search, compare, and review the data throughout the iterative and reflexive analysis process.

The researcher added descriptive data for the participant pool to the qualitative data analysis to increase understanding of those providing the data in the study. This can support the identified contexts of the study revealing similarities and differences among participants.
One pilot interview was conducted with a former school nurse. The pilot interview was transcribed and shared with other qualitative researchers. The pilot interview helped identify researcher needs to allow the participant to guide the interview as much as possible, to be sure that guiding questions are as open-ended as possible to encourage full sharing of participant

experiences, and to be alert to participants' body language and tone as well as the actual words spoken.

Interviews were transcribed by placing conversation into lines and stanzas to separate ideas flowing in the interview (Gee, 2014). The process of transcription in itself becomes an act of interpretation of data (Locke, 2004). The researcher/interviewer did the transcription of interviews. The researcher planned to use a keyed method for indicating various extra aspects of the interview. For example, indications and descriptions of movement will be placed in round brackets while indications and descriptions of facial expression will be placed in square brackets. This became difficult because of the failure of video recording.

Codes, categories, and themes were identified through connection with participant comments made during interviews and provided in textual content within the survey data. The process was both intertextual and interdiscursive in nature, reflecting methods applied to work guided by CDA (Reisigl & Wodak, 2016). Context was considered in all data analysis. The researcher attempted to analyze data addressing context from multiple angles, including social, institutional, historical, and political (Reisigl & Wodak, 2016). Data collection and data analysis continued using iterative and reflexive processes until the researcher and dissertation committee determined that data saturation would not occur because of a lack of participation.

Rigor and Trustworthiness

Rigor and trustworthiness in this qualitative study was achieved through the reflexive, iterative processes of data analysis, member checking, and triangulation of the data as it emerged. Reflexive and iterative analysis required that the researcher kept returning to the data as more data was obtained and more analysis was completed (Lincoln et al., 2018). Through this process, the researcher was required not only to maintain a connection to the data but also to

continuously examine self and the influence of self on the data and the data analysis through the development of first codes, then categories, and then themes. All emerging codes, categories, and themes were connected to specific participant statements in the interviews. These actions helped to maintain the authentic voice of the participants in the data (Lincoln et al., 2018). Member checking required the researcher to provide the participants with transcripts of interviews. Member checks were completed as soon as the interviews were transcribed to allow the participant to review the information as close to the interview as possible. This practice allowed participants to verify that their voices are presented in an accurate and truthful manner (Lincoln et al., 2018). No interviewed participant amended the interview.

An audit trail was established with the data. The audit trail began with the collection of the data and included the growth of the analysis through the iterative processes. Those processes include comparison to the literature, verification of data, and expert consultation. The audit trail for the data includes a log of dates as well as documents that show the progression of analysis. The audit trail helped to establish trustworthiness and rigor in the data (Morse, 2018).

Triangulation is a process that demonstrates rigor in research by providing three-pronged support for the data (Richards & Morse, 2013). The data obtained from the research along with the analysis of that data is supported through comparison to available research and data on the topic along with expert peer evaluation of the data and data analysis (Richards & Morse, 2013). Comparative data can come in many forms including comparison of information from focus groups to data from individual interviews, quantitative data, and qualitative studies (Richards & Morse, 2013). Data was evaluated intertextually and interdiscursively as is indicated by methods applied to studies guided by CDA (Reisigl & Wodak, 2016). Using reflexive and iterative processes to determine intertextuality and interdiscursivity with the data analysis moved the

analysis into a cyclical rather than a linear form. All parts of data analysis that lead to trustworthiness and rigor were continuous and contiguous.

Prior to beginning recruitment, a fellow qualitative researcher interviewed the primary investigator (PI). The interview helped the researcher to identify prior thoughts, information, and knowledge about the subject (Richards & Morse, 2013). The interview was not to provide a blank slate but to help the researcher with the identification of prior thoughts, information, and knowledge to decrease the potential for researcher bias in the process (Sohn et al., 2017). That interview was transcribed and presented to a qualitative research group for evaluation. While the PI was present for the interpretation of the interview transcript, she did not participate in the process. A discussion was held after evaluation was completed to allow the PI to ask questions and clarify findings. Assumptions and personal issues were addressed and became part of the reflexive journaling process.

Assumptions and personal feelings identified related to the topic included beliefs that school nurses were not being used to the full extent of their expertise, that school nurses should be involved in the sexual health and education of students at all levels, and that systemic problems are leaving the children "without" adequate sexual health and education interventions. The group noted that the PI may view the nurse as a "savior" related to the issues of sexual health and education. These processes helped to increase awareness of potential problems with data analysis and were addressed during reflexive journaling.

Researcher assumptions were addressed through reflexive journaling. The researcher's journal was kept separately from any writing related to the data analysis process. This journal and method attempted to allow the researcher to identify assumptions that arose throughout the process. Acknowledgment of researcher assumptions was intended to help prevent the leakage of

those assumptions into the data analysis. The researcher also addressed assumptions with expert reviewers to help with the identification of any assumptions that may inadvertently appear in the data analysis. These processes represent methodological reflexivity as outlined by Buetow (2019), to manage assumptions and potential bias in qualitative nursing research.

Demographic data was obtained from participants to provide a picture of the participant population interviewed for the research. Demographic data includes information about both the participant and the community. Information about the participants' level of education, years of experience as a nurse, years of experience in school health, experience with sexual health education, and type of involvement in sexual health programming and sexual health education as well as age, gender, and race/ethnicity was requested in the survey. Information about the community included rates of STD among adolescents and young adults, educational, economic, gender, and racial/ethnicity information that is available through state and national databases.

Some items on the REDCap survey asked for written responses. The participant could choose to provide data in multiple formats. This method provided additional textual data and allowed the researcher to review data acquired in a different manner in an effort to demonstrate rigor within the study. CDA addresses language in both verbal and textual formats in an effort to identify areas of both harmony and dissonance within the data to develop the clearest picture possible. This process can help with the confirmability of data and results of the study.

Summary

The research methodology proposed provided an appropriate foundation for the research questions presented. Qualitative research allowed for the gathering of data in an open-ended, semi-structured manner intended to allow codes, categories, and themes to emerge. CDA allowed the researcher to analyze the qualitative data with the sociocultural foundations of the

participants as an integral part of the process. Issues of sexual health, sexual health education, and sexuality are highly charged issues especially as related to adolescents. The unique perspective of the school nurse was meant to provide insights surrounding these issues while considering the knowledge and power components that influence them.

Chapter 4. Results

The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. The research was qualitative and intended to be exploratory, interpretive, and descriptive in nature. The researcher used iterative and reflexive, or hermeneutic, processes in the analysis of data as it was received. A purposive sample of school nurses who work in Tennessee public schools with students from a variety of communities was used.

The study was intended to expand the information available on sexual health and education from the perspective of the school nurse who provides access to care for students in the public pre-kindergarten through grade 12 (K-12) system in the state of Tennessee.

The work was based on the research question and aims:

How do school nurses working in Tennessee public schools perceive their roles in the sexual health and the sexual health education of students from rural, suburban, and urban communities?

Aim 1: To explore the perceptions of school nurses about their roles in the sexual health and sexual health education of students in Tennessee public schools.

Aim 2: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in rural areas of Tennessee.

Aim 3: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in suburban areas of Tennessee.

Aim 4: To describe the experiences of school nurses with the sexual health and sexual health education in public schools in urban areas of Tennessee.

Aim 5: To compare, contrast, and interpret the perceptions and experiences of public-school nurses from rural, suburban, and urban areas of Tennessee related to the sexual health and sexual health education of their students in the context of their societal, cultural, and power structures.

Several assumptions exist with the proposed research:

- School nurses have the knowledge and self-efficacy to participate effectively in the sexual health and sexual health education of students.
- Various and varying societal and cultural mores across rural, suburban, and urban areas of Tennessee influence and impact sexual health and sexual health education of those subjected to those mores.
- The sexual health and sexual health education of students in Tennessee are impacted by both health policy and social policy.
- Individuals and societies are driven, influenced, and constrained by power and knowledge.

Participants

Participants completed the online survey using the secure REDCap server available through ETSU. Thirteen participants completed the informed consent and met inclusion criteria. Three participants did not complete any information or minimal information beyond degree attainment, gender identity, and age. Ten respondents remained after data cleaning.

Table 1 provides an overview of the demographics and descriptors of the participant group. All respondents indicated that they were female and Caucasian; so, those two items were left off the table because they were all the same.

Table 1

Participant Demographics and Descriptors

Participant Responses n=10	**n**	**%**	**Range**	**Median**	**Mean**
Age in Years	10	90*	25-59	35	38.4
Degree	10				
ADN	5	50			
BSN	5	50			
Years RN	10	100	2-27	8	11.1
Years school nurse	10	100	1-23	4.5	5.8
Grade level	10				
PreK- 4th	2	20			
PreK- 5th	1	10			
PreK- 8th	1	10			
7th-12th	1	10			
9th-12th	2	20			
Supervisor	3	30			
Total # students	6607		224-1500	556.5	660.7
Political Leaning	10				
Conservative	4	40			
Centrist	1	10			
Liberal	4	40			
Other	1	10			
Religious Leaning	10				
Conservative	3	30			
Centrist	1	10			
Liberal	2	20			
Not religious	2	20			
Other	2	20			

Number of responses
*One participant did not respond

Demographic data for participants was analyzed. Age range for participants was 25 to 59 with one participant not providing data related to age. The mean age for participants was 38.4 years. Participants were equally split with five associate degree prepared nurses and five baccalaureate degree prepared nurses. Reported years as a registered nurse ranged from two to 27 with a mean of 11.1. Reported years as a school nurse ranged from one to 23; however, removing the participant with 23 years of experience as a school nurse changes the range to one to eight years which changes the mean from 5.8 years to 3.9 years. Seven of the 10 survey respondents have five years or less experience as a school nurse. Three respondents noted that they acted as supervisors only. The reported personal political leanings at various levels from liberal to conservative. Participants reported religious beliefs or leanings from not religious to conservative. Two participants indicated other without further elaboration. Politically and religiously, respondents represented a variety of positions across the spectrum.

Communities Served

The respondents described their communities in related to type of community, defined as rural, suburban, and urban, political leanings, and religious make-up based on their perceptions. Table 2 represents the participants' perceptions and reporting on the communities which they serve.

Table 2

Participant Perceptions of Community Descriptors

Community Type n=10	**n**	**%**
Rural	8	80
Suburban	1	10
Urban	1	10

Community Political Leaning n=10		
Conservative	6	60
Varied*	3	30
Liberal	0	0
Prefer not to answer	1	10
Community Religious Makeup n=10		
Primarily Conservative Christian**	3	30
Primarily Christian	5	50
Mixed Faiths	2	20

Importantly, the majority of participants identified as living and practicing in a rural community. Eighty percent of respondents (n=8) indicated that they served rural communities. One school nurse from a suburban community and one nurse from an urban community responded to the survey. Both interview participants served rural communities. Participants indicated that their communities were more conservative politically and religiously based on responses. The category of mixed faiths was intended to include all faiths; however, this was not clarified for participants and no text box for elaboration was provided.

The distribution of participants was such that research aims three, four, and five could not be addressed. With only one survey response from a nurse in a suburban community, one from an urban community, and no interviews from school nurses in either type of community, experiences and perceptions could not be explored, described, or interpreted relative to community type. The data did not support comparison among nurses from the three types of community since insufficient data was collected from school nurses in suburban and urban areas.

Textual Survey Questions

Participants were asked four different questions that allowed for textual responses. The first question was: Can you describe local policy on sexual health education for students in the school(s) that you serve. One respondent uploaded a document outlining the systems Family Life Curriculum (FLC). In this system, the FLC is provided to students by public health educators from a local higher education institution. One respondent provided a synopsis of state code related to abstinence and gateway activities. Three did not respond, and others gave a brief description of practice rather than policy.

"There is not a sexual health education program or class for the students at all" (RS3) to "Local policy on sexual health education for students in the school says that FLE [Family Life Education] is a program that promotes and encourages abstinence and shall not promote any "gateway" sexual activity" (RS11). One school nurse gave a different response, stating, "I am employed by the health department so when a student is in my clinic, they are speaking to a public health nurse representing public health policy. I provide factual education regarding sexual health issues and referral to sexual health clinics for medical care" (RS12). The respondent did not include actual policy in the reply.

The second textual question was, "Would you describe an experience that you had with the sexual health or sexual health education of students?" Three did not respond. Two indicated that they were not allowed to interact with students related to sexual health or sexual health education. Statements from the five responding participants were:

- "Directly speaking with students about becoming sexually active and the steps that are needed to be taken to prevent pregnancy and std's if abstinence isn't going to be practiced. The student then went to the local HD for bc and std testing" (RS1)

- “Most of my experiences with this topic only include information on the female reproductive system and strictly how the menstrual process works” (RS9)
- “Student was sexually active and just discovered that her boyfriend has sex with another partner. Advised regarding STD testing” (RS10)
- “Students coming in with questions concerning menses and birth control. Expectant mothers coming in with questions related to pregnancy or resources for help” (RS21)
- “There is a LOT of religion based myth with students or just bad information passed between them. Parents are using the religion card to avoid being open and answering questions. Students spread wickedly bad information and other students believe it” (RS 24)

The third textual question was, “Would you describe an experience that you had with another adult (nurse, administrator, teacher, parent, etc.) concerning the sexual health or sexual health education of students?” Five participants did not answer. Two participants stated, “none.” Three participants provided responses sharing interactions.

- “Discussed with administrators that we should have the robot babies as a practice module to help with sexual education and ramifications of sex” (RS3)
- “Collaboration with Guidance for expecting students” (RS21)
- “I have been asked to "make sure I don't give them any ideas" when teaching a fellow teachers kid. They had never had these conversations and felt that if I made her think about it-I would encourage promiscuity” (RS24)

The last textual response question was, “Do you have anything else that you would like to share?” Only one person shared anything stating, “I find that the kids are very willing to discuss

private things and are sorely deficient in sec [sic] education, personal needs, understanding of their needs/hormones/development" (RS 24).

Recruitment Communication

Data was obtained during the recruitment process from electronic communications that were open and shared among several people. One nurse wrote:

> "TCA Family Life Curriculum law allows abstinence-only education in the school setting and this is not completed by school nurses so I am not sure if you Will [sic] identify anyone providing sex education in TN public schools."

This person's reply is not a fully accurate interpretation of state code or the role that school nurses can play in sexual health education. State code does require an emphasis on abstinence-based education (TDoE, 2021). The code has more information about what can be addressed and cannot be addressed; however, this is an example of language being given power based on how it is used, who is using it, and the context in which it is being used (Wodak & Meyer, 2001). State code allows for qualified healthcare professionals or social workers to provide family life education which includes sexual health education (TDoE, 2021). Further, this nurse is using the power that she has been given based on role to speak for other school nurses.

Another nurse replied to email recruitment, saying:

> "I'm am [sic] not a school nurse. I will tell you this. No one in the school system has any right or business in teaching anything about sexuality other than the biological anatomy and physiology of the subject. This discussion should not take place until the subject can be understood. This would be in late Jr. High School. Speaking of sexuality in K-7 is, in my opinion inappropriate. If the subject of sexuality is discussed prior to emotional,

mental and physical maturity of a child this will cause, confusion, mistrust, and anxiety which can lead to sexual/gender dysphoria."

Additional comments and responses demonstrated misinterpretations of TCA Family Life Curriculum and the roles that nurses can and do have in the sexual health and sexual health education of students in Tennessee public schools.

Qualitative Results

Data analysis for this qualitative work was initiated using an iterative and reflexive process for codes, categories, and themes. Interview participants were given the opportunity to review their transcripts for accuracy and authenticity as part of member-checking processes. No changes were made to transcripts through the member-checking process. CDA allowed for the analysis of written responses provided by those who completed the REDCap survey. Throughout the analysis process, the researcher consulted with other qualitative researchers to help with verification of codes, categories, and themes that started to emerge. Additionally, written data from interviews and survey responses were entered into ATLAS.ti for data management and organization.

Because data analysis begins with the first data collected when using qualitative research including CDA, three themes began to emerge from the data: grayness or uncertainty; isolation or lack of connectivity. These emerging themes were in relation to sexual health and education specifically. Both were impacted by power structures within the social and political context of the communities the nurses served.

Power

Power and its sources are central to the roles of the participants as nurses in Tennessee public schools. Wodak and Meyers (2001) write that words themselves do not have power but

are given power. This statement helped to frame analysis of the discourse data. Power sources were identified in data analysis as coming from policy, the culture of the community, other school professionals, and nurses themselves.

Power from Policy

Sexual health education is codified through laws passed by the state legislature. Tennessee code stipulates that sexual health education must "emphasize" risk avoidance behaviors based in abstinence. The code states that all education must be evidence-based and not include "gateway" activities. Evidence-based approach is described as

> "(A) That has a clear theoretical base that integrates research findings with practical implementation expertise that is relevant to the field;
>
> (B) That matches the needs and desired outcomes for the intended audience; and
>
> (C) That if implemented well, demonstrates improved outcomes for the intended audience;" (TDoE, 2021, p. 50).

A gateway sexual activity is described as sexual contact that could lead to non-abstinent behavior (TDoE, 2021).

The Tennessee Department of Education makes decisions that may or may not be based on legislation. According to an official at the TDoE, the Youth Risk Behavior Survey (YRBS), which is conducted by the CDC through the Youth Risk Behavior Surveillance System (YRBSS) every two years, had not included questions about youth sexual behaviors since the 2011 survey (M. Bloodworth, personal communication, August 22, 2023). In this way, the TDoE is exerting power over the gathering of data which could be used to make evidenced-based decisions.

Participants discussed both their lack of power and the sources of power in their communities. Several participants stated that they were not allowed to discuss anything other

than abstinence. RS1 stated, “I am not allowed to teach anything beyond abstinence.” RS11 mentions the state code that disallows the introduction of anything that could be considered a “gateway” activity. The state code of “emphasize” combined with restrictions on “gateway” activities is interpreted by these participants disallowing everything but abstinence.

These findings connect to the combined theoretical framework with the concept of policy and political influences. Policy is impacted by local, regional, and state level culture and cultural influences. These concepts are represented in the power structures and public health realms of the combined framework.

Power from School Professionals

Other professionals within school system structures hold power. Both interview participants indicated that guidance counselors had more control over sexual health issues than they did. Both interview participants stated that sexual health concerns would be routed through the guidance counselors for their schools. Interview 1 did indicate a positive relationship with the guidance counselor at her school. RS 21 indicated a collaborative relationship with the guidance counselor. Both interview participants indicated a lack of interaction or communication with the Coordinated School Health (CSH) director for their systems. Survey respondents were not asked specifically about CSH or the nature of relationships among school professionals.

Power from other school professionals intersects with the combined theoretical framework in the concepts of policy influences and role diffusion. Other professionals are given power in the school context that would belong to the nurse in the health care context.

Power from Community Culture

Power comes from the social culture of the community. Interview 2 mentioned the conservative and religious nature of the school community. She states, “I live in a rural religious

community. I think that some of those things are not brought to everyone's attention." Interview 1 mentions living in the Bible Belt. RS24 mentions the "religion-based myth" that is spread by students related to sexual health. RS24 goes on to state that people have, "played the religion card." This provides the metaphor of a game. This metaphor is a well-known way of indicating that something was done to gain an advantage over or diminish the other player in some meaningful way.

Power is exerted by parents. While no parents were interviewed as part of this research, their influences over the actions of the participants were noted by several school nurses. Interviews 1 and 2 both mention their discomfort with talking with students without calling parents. RS24 mentions an encounter with a co-worker parent, "I have been asked to 'make sure I don't give them any ideas' when teaching a fellow teachers kid. They had never had these conversations and felt that if I made her think about it-I would encourage promiscuity."

Power from community culture supports the concepts of cultural influences, interdependence, lack of anonymity, and rural community. The participants are impacted by their community beliefs, interconnectedness, and lack of anonymity especially in the rural context.

Power from Nurses

Power might be exerted by nurses themselves. Nurses exerting their power is demonstrated in email responses to recruitment materials. One nurse wrote, "TCA Family Life Curriculum law allows abstinence-only education in the school setting and this is not completed by school nurses so I am not sure if you Will [sic] identify anyone providing sex education in TN public schools." As previously noted, this statement is not a completely accurate representation of policy. Some of the participants noted that they are involved in teaching of sexual health. One respondent noted that local public health educators taught the content. The policy states,

"Nothing in this section shall prohibit an LEA from utilizing the services of a qualified healthcare professional or social worker to assist in teaching family life" (TDoE, 2021, p. 52).

Another nurse responded to recruitment material stating, "No one in the school system has any right or business in teaching anything about sexuality other than the biological anatomy and physiology of the subject. This discussion should not take place until the subject can be understood. This would be in late Jr. High School. Speaking of sexuality in K-7 is, in my opinion inappropriate. If the subject of sexuality is discussed prior to emotional, mental and physical maturity of a child this will cause, confusion, mistrust, and anxiety which can lead to sexual/gender dysphoria." This statement reflects the idea that sexual health education is a very narrow topic related to teaching about topics directly related to intercourse. According to CDC (2023b) guidelines, young children should be taught about bodily autonomy and consent. These responses led to questions about which school nurses were led to participate in the study. The framing of the research in the recruitment materials or in the survey questionnaire may have discouraged participation.

RS12 writes, "I am employed by the health department so when a student is in my clinic, they are speaking to a public health nurse representing public health policy. I provide factual education regarding sexual health issues and referral to sexual health clinics for medical care." She provided no email for follow-up to get more specific information. Her response raises a question about using power to avoid the influences of power exerted by policy and community culture by bringing a public health nurse into the school.

Power from nurses reflects the concepts of role diffusion, policy influences, and cultural influences. The nurse takes on multiple or different roles within the context of school health

nursing. Nurse responsibilities are impacted by policy which can be misinterpreted or misused based on cultural influences and interpretations.

Grayness/Uncertainty

This theme appeared consistently throughout the data. Nine school nurses provided responses indicating a lack of clarity about their roles related to sexual health and education. Interview 1 stated, "We don't have any policy in place as far as me talking to a child about [sexual issues]." She goes on to say, "I'm not really sure what I would be allowed to discuss with them without calling their parents." She uses the metaphor of grayness as uncertainty when she stated, "It's a really gray area."

Interview 2 was very uncomfortable during the interview and hesitated to discuss sexual health and education issues. She conveyed a general sense of uncertainty throughout the interview. RS24 states, "Students spread wickedly bad information and other students believe it." This statement addresses that uncertainty of students related to the topic that nurses are hesitant to address. This same participant stated that she had to, "steer students from the real questions they wish to ask."

Grayness and uncertainty connect to the theoretical concepts in positive and negative stimuli, policy influences, and group and individual identity. Positive and negative stimuli occur when the person interacts with the environment in any way. The school nurses use words, word meanings, and metaphor to convey uncertainty of policy and their roles in the context of the school environment related to sexual health and education.

Isolation/Lack of Connectivity

Interview 2 discusses the fact that she is not consulted about sexual health or education even though she is the lead and only RN for the system. She is not consulted by nor does she

confer with the Coordinated School Health director for the system even though their offices are in adjacent buildings and their school system is very small. She notes the CSH director has a degree in kinesiology and lacks the same level of expertise related to health and health education as a registered nurse. Additionally, she is not routinely consulted by the licensed practical nurses working in the other schools. RS9 states, "I have recently learned that the students did not have a course in middle school nor early high school." RS9 implied that she learned this from students. Interviews 1 and 2, along with RS21 address the need to bring in the guidance counselor or the idea that the guidance counselor would have a larger role in the sexual health issues of the students. These encounters demonstrate the isolation of the school nurse from most sexual health and education decisions for students.

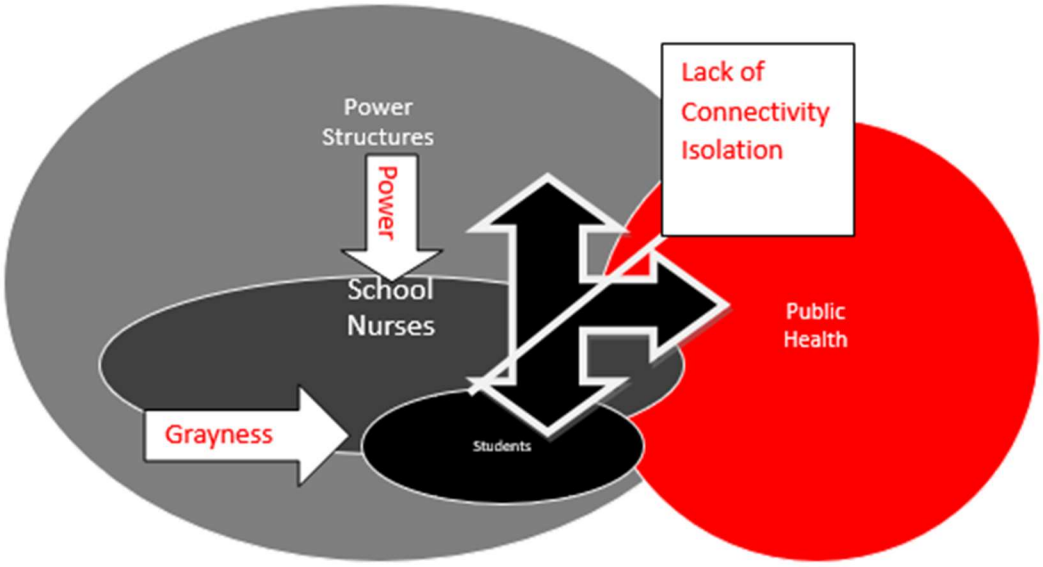
These findings suggest that some nurses are experiencing a lack of interconnectedness related to sexual health and education of students. That isolation and lack of connectivity impacts the nurses' abilities to help students with health and adaptive behaviors. This lack of connectivity can also impact the self-concept and individual and group identity of students in relation to their own sexual health, education, and knowledge.

Visual Representation of the Research and Available Data

Figure 3 below provides a visual representation of the findings of the study based on Figure 1 and the theoretical foundation of the study.

Figure 3

Research Findings Visual Representation



The Public Health Issues circle is pulled almost completely from the diagram. The public health issues impacting the health of adolescents like rising rates of STDs across the state are not central to either policy as reflected in state code or practice as reflected in the discourse shared by participants in the research. The Public Health circle is colored red to indicate the alarming state of sexual health issues for adolescents in Tennessee. The other circles are shaded gray with the shades darkening from the outside in because the grayness begins at the policy level with the use of language that is not supported through policy to the nurse to the student. The student circle is darkest because that grayness and uncertainty increases as it moves through the layers from policy to individual indicating the lack of information and education that they receive related to sexual health and education as a result of the power structures.

The school nurse circle is pulled partially away from the student circle because of the fragmented relationships between students and school nurses related to sexual health and education. School nurses are frequently separated from public health as well. The school nurse and individual student circles have been compressed by the power being exerted on them. The pressure from power exerted on school nurses distorts, compresses, and limits the nurses' abilities to function. Students also experience that compression limiting their abilities to be exposed to positive stimuli and develop or adapt health behaviors for better outcomes.

The lack of connectivity is expressed through the connecting arrows with a slash through them. For most participants, there is a lack of meaningful connection to power structures, public health, or students related to sexual health and sexual health education. The participant who is a school nurse employed by the health department emphasized her separation from the existing school-related power structures as a means to create interventions for students based on public health policy.

Summary

Participants in this study answered textual questions and provided interview responses that allowed for exploration of their roles in the sexual health and sexual health education of students in Tennessee public schools. Interpretation of data using CDA exposed three themes: Power, Grayness/Uncertainty, and Isolation/Lack of Connectivity. These findings impact the role of the nurse as well as the ability of the nurse to develop interventions to help students develop health and adaptive behaviors, self-concept, and individual and group identity within the context of sexual health and education. The interpretation of word meaning and the identification of metaphor were the most prominent textual properties identified. Those themes were used in the re-imagined visual of Figure 3 to demonstrate the impact of those themes.

Chapter 5. Discussion

This chapter is a discussion of the research findings, the connection of the work to the general theoretical framework and the literature, the significance of the work to nursing and nursing science, and the recommendations for future research. The purpose of this research was to explore, describe, and interpret the perceived roles of school nurses in Tennessee public schools who work with students from rural, suburban, and urban areas related to their experiences with the sexual health and sexual health education of students in the context of their existing societal, cultural, and power structures. The research was designed as a qualitative study using both written and interview responses of public-school nurses from across the state. The researcher used Critical Discourse Analysis based on the writings of Fairclough as influenced by Foucault to provide guidance with the analysis.

Discussion of the Findings

Limited participation suggests an underlying hesitancy of school nurses toward the topic. This was noted in the literature regardless of timeframe from McGrath & Laliberte in 1974 through the most recent work (Dickson et al., 2020; Dickson & Brindis, 2021; Smith et al., 2020). The literature review for this research revealed a lack of work that included the voice of the school nurse in work related to the sexual health and education of adolescents.

Positive & Negative Stimuli

School nurse participants reported multiple stimuli in their environments related to sexual health and education. Participants used words and phrases addressing what they were and were not "allowed" to do, say, or teach about sexual health. School nurse participants had limited knowledge about sexual health related issues faced by their students. Most did not know the rates for adolescent sexual health problems for their communities.

Implications that rural communities did not face the same problems as larger communities were shared by rural nurses. State data on STDs does not align with that statement (CDC, n.d.). Rural communities have rates of STDs that rival those of their urban counterparts (Haley et al., 2012). Tennessee does not have data on adolescent sexual risk behaviors that could be available through the YRBSS; however, previous research reveals a lack of condom use among rural adolescents (Haley et al., 2012; Homma et al., 2012). In 2011, 41.3% of Tennessee adolescents surveyed reported that they had not used a condom at their last sexual intercourse (CDC, 2023d).

Health Behaviors

Health behaviors of teens are not being addressed in relation to sexual health. A review of Youth Risk Behavior Surveillance System (YRBSS) showed that Tennessee data excludes questions about sexual behaviors (CDC, 2023d). The last time that any questions related to sexual behaviors were included in the YRBSS for Tennessee students was 2013 (CDC, 2023d). Tennessee is not tracking adolescent sexual behaviors as a matter of policy by eliminating those questions from the national survey. Health behaviors impact both the individual and the community (Roy, 2009). Officials at the Tennessee Department of Education note that adolescent sexual health behaviors are not being assessed as a part of policy. This lack of assessment is impacting the ability to address the impact of those behaviors on individuals and communities. Participants noted that they were not allowed to discuss sexual health with students or needed to direct them away from questions seeking answers to sexual health issues. The rates of STDs among Tennessee youth continue to climb (CDC, n.d.).

Past research indicates that adolescent sexual behaviors are often detrimental to their health (Homma et al., 2012; Ngabirano et al., 2022; Salerno et al., 2013). The fact that the state

of Tennessee stopped collecting assessment data via the Youth Risk Behavior Survey diminishes the ability to identify and address potentially harmful sexual behaviors (CDC, 2023d). The lack of assessment data for adolescent sexual health behaviors impairs the ability to plan or implement effective interventions. Abstinence-based adaptive behaviors are being emphasized to the exclusion of others according to both policy and responses.

Adaptive Behaviors

Adaptive behaviors promote the integrity of the human system both to meet needs and create transformation (Roy, 2009). Adaptive behaviors are not being taught or developed in a climate heavily impacted by political, religious, and cultural power structures. The school nurse's feelings of isolation reflect a lack of engagement in SHE, and they do not have the tools available to be engaged in the development of adaptive behaviors. The power structures identified at the state and community levels impair this process. Tennessee Code Annotated requires that sexual health education emphasize sexual risk avoidance or abstinence while not introducing gateway activities (TDoE, 2021). Previous research reviewed for this work that involved adolescents often focuses on the development of adaptive behaviors (Haley et al., 2012; Hulton, 2007; Serowoky et al., 2015).

Participants focused on menstruation and puberty in their responses. Salau and Ogunfowokan (2019) found that school nurses in their study also focused on these topics; however, the results indicated that more open communication between nurses and students on more sexual health topics was vital to effective and improved sexual health and education.

Interdependence

Interdependence reflects relationship, sharing, and familiarity (Lee et al., 2018; Roy, 2009). School nurses are reporting a lack of interdependence related to sexual health issues.

Interdependence impacts the students as well as the school nurses. Their relationships with each other impact their interactions with sexual topics. One participant noted the influence of other students on the information that is circulated about sex. Salau and Ogunfowokan (2019) note the impact of social media on perceptions and information about sexual topics. They suggest finding ways to use outlets preferred by students to share accurate information.

Policy & Political Influences

Policy and political influences are a means by which power is exerted over individuals and societies (Foucault, 2000). Policy at the local level is impacted by state law. State law in Tennessee requires an emphasis on abstinence with avoidance of instruction on any gateway activities (TDoE, 2021). State policy includes the terms "evidenced-based approach" and "medically-accurate" as a requirement for anything taught related to sexual health (TDoE, 2021, pp. 48-49). The code goes on to describe how the Family Life Curriculum is "abstinence-centered" (TDoE, 2021, p. 48). The code used some of the language that the CDC (2023b) uses to describe best practices with sexual health education; however, the state does not use the comprehensive aspect of successful sexual health education programs (CDC, 2023b; Rabbitte & Enriquez, 2019).

Several participants reported no sexual health education or knowledge of a policy for sexual health education in their schools. One reported working for the health department rather than being a direct employee of the school system. That school nurse used public health/health department policy rather than education policy to guide practice. That specific policy was not included in the survey response; so, the policy could not be compared to current health education policy.

Dickson and Brindis (2021) addressed the need for school nurses to be involved in policy development especially as it is related to sexual health education. They note that nurses are responsible for implementing policy, but, as advocates of their patients, should also work to influence policy as it is written and changed (Dickson & Brindis, 2021). Dickson, Parshall, and Brindis (2020) note that top-down policy from the state level to local communities and schools rarely meets the needs of those children because of the variability of multiple local challenges and expectations.

Culture & Cultural Influences

The culture and cultural beliefs of individual communities as well as those espoused by both individuals and state lawmakers have an impact on sexual health and education for students. Religion and religiously conservative communities were mentioned repetitively in the data including discussion of religion-based myth and parents using the religion card to avoid sexual health topics. These influences are creating stimuli that are based on misinformation shared among students.

The influences of conservative culture were addressed in research with Muslim parents of adolescents related to the sexual health education of their children (Sanjakdar, 2021). This research emphasized the need to consider the cultural influences impacting community responses to sexual health education policy. Opportunities need to be developed to allow increased understanding among community members concerning various cultural perspectives and sexual health education policy.

Lack of Anonymity

Several participants discussed lack of anonymity in their roles as school nurses. They discussed being known in the community. School nurses reported instances of being approached

by parents as well as knowing parents as members of the community. This personal knowledge and interaction led to caution in approaches to sexual health topics. The lack of anonymity creates an atmosphere where respondents use extreme caution in situations even though they are expert clinicians.

Previous research indicates that students can also be impacted by a lack of anonymity in relation to sexual health. Two studies addressed the finding that students are more likely to seek nursing care at school-based clinics if they are met with respectful and non-judgmental providers (Daley et al., 2023; Johnston et al., 2015). The students' perceptions of their providers are important factors in choosing to access care. Having a provider-client relationship that extends outside the clinical relationship like those occurring in small communities can be detrimental to accessing care (Swan & Hobbs, 2018).

Context and Policy

Important contextual factors related to the timing and the topic of the attempted research could have impacted the lack of results. On June 24, 2022, the Supreme Court of the United States of America ruled on the case of Dobbs v. Jackson Women's Health effectively overturning the decision made in Roe v. Wade, allowing states to regulate aspects of abortion law not federally protected (Paulsen, 2023). Tennessee is one of the states that has made abortion illegal in the wake of the Dobbs decision (Center for Reproductive Rights, 2023). Early in 2023 Tennessee became the only state to reject continued federal funding for the care of people with HIV (Sasani, 2023). Tennessee has been receiving this funding for 10 years. The total amount of federal dollars rejected for the care of people with HIV in Tennessee is $8.8 million (Sasani, 2023).

Public education in the state can be a contentious topic as well. The Tennessee Education Association along with several teachers filed a lawsuit against the state's department of education over curriculum policy (Alfonseca et al., 2023). Tennessee created the Public Charter School Commission which assumed responsibility for charter school applications and renewals from the Tennessee State Board of Education in 2021 (Tennessee Public Charter School Commission [TPCSC], n.d.). The TPCSC overturned several decisions by local school boards about new charter schools creating tension between these state and local bodies (Shields, 2023).

Research Findings

Findings of this research, specifically the themes of grayness/uncertainty and isolation/lack of connectivity along with the power structures under which school nurses must work, suggest there is an absence of school nurses as active participants in most school-based work related to the sexual health and education of adolescents. Results of this research aligned with the work completed in New Mexico and Kansas (Dickson & Brindis, 2021; Dickson et al., 2020; Smith et al., 2020). Nurses in those studies conveyed feelings of confusion about policy, expressed a lack of continuity related to policy and guidance, and noted the influences of culture and social influences concerning the topics related to sexual health and education addressed (Dickson & Brindis, 2021; Dickson et al., 2020; Smith et al., 2020).

Based on communications with potential participants as well as the number of unanswered survey questions, the research revealed a hesitancy on the part of school nurses to share their perceptions related to their roles and experiences with sexual health and education in Tennessee's public schools in the context of this study. This might be attributed to the themes of grayness and uncertainty or the power dynamics of the environments in which the school nurses

operate. Findings suggest the voice of the school nurse was not heard or amplified as an accessible healthcare provider with direct contact with Tennessee's youth.

The findings of the study allowed for exploration and interpretation of school nurse perceptions of their roles in the sexual health and sexual health education of students. However, responses of school nurses from suburban and urban communities were limited to one respondent each from suburban and urban schools responding to the survey. No school nurses from an urban or suburban system participated in an interview. This prevented the intended group analysis of suburban and urban nurses and their responses as well as significant comparison among the groups of rural, suburban, and urban nurses.

The one suburban nurse had responses similar to the rural nurses. The one nurse from the urban community did provide a different perspective. However, no interviews were conducted to allow for expansion of meaning. Not enough data from suburban or urban school nurses was obtained to address aims three, four, and five. The findings represent the perceptions of the rural nurse predominantly.

Implications

The results of this work offer a view of the sexual health and educational environments that surround our youth and our school nurses in Tennessee. The research and the difficulty with it reflect a climate impacted by the changing legal landscape of sexual and reproductive health nationally and across the state (Paulsen, 2023). The implications of this work affect policy, education, public health, and nursing.

Policy

The policies discussed related to this research, both state and local, reflect the conservative social and cultural norms prevalent in politics in Tennessee. Current policies are not

leading to improvement in the rate of STDs across the state as the CDC (2019) continues to report increases. Research supports the use of comprehensive, medically accurate, evidence-based, culturally and age-appropriate sexual health education as a means to delay initiation of sexual activity among youth while decreasing risks related to sexual health issues like STDs (CDC, 2023b). Further, policies discussed by participants hinder their ability to help students with their sexual health issues and questions. Policies should reflect evidence-based best practice.

Education

The research points to a need for further education at all levels. Education needs to be delivered to policy makers at all levels so that policy can reflect evidence-based best practice. Comprehensive sexual health education helps to protect our youth by allowing adolescents to make informed decisions about sexual activity and relationships (CDC, 2023b). The use of the term "evidenced-based" in the state policy does not support its emphasis on abstinence. Evidence points to best-practice that is comprehensive rather than abstinence-based SHE (Rabbitte & Enriquez, 2019). The need for further education is reflected in the theme of grayness or uncertainty. Participants noted their lack of comfort with their own knowledge of what could be addressed with students. Further, participants shared that others might have more authority related to sexual health education than registered nurses whose education and practice guidelines make them uniquely qualified to address health related issues and education like sexual health.

The research results combined with previous research may require that comprehensive sexual health education be centered outside the public education system. The public education system and the school health nurse may be influenced by power structures that focus more on suppression of content by limiting exposure to comprehensive sexual health education.

Educational efforts could be made across communities to promote mutual understanding around the topics of sexual health and education. The effects of age-appropriate, medically accurate, and culturally sensitive sexual health education are documented (CDC, 2023b). Work would need to be done to help those who have power at all decision-making levels from individual parents to local schools to state policymakers. These efforts could be used to promote understanding of sexual health education within the cultural context of religious conservatism of communities because culture must be respected for educational efforts to succeed (Sanjakdar, 2021).

Public Health

Public health issues, in particular those related to the sexual health and behaviors of adolescents, appear to be disconnected from the education system and educational decision-making processes in Tennessee. This reflects the theme of isolation or lack of connectivity. Educational approaches do not reflect an effective means of delaying initiation of sexual activity and preventing sexual health problems like STDs (CDC, 2023b; Rabbitte & Enriquez, 2015). Contrary to the perceptions of some of the participants, rural communities have problems with STDs similar to those in urban and suburban communities. Atlas Plus data provided by the CDC (n.d.) allows a picture of the state that demonstrates the problem across communities of various sizes. Public health concerns do not align with educational or policy concerns across the state.

Nursing

This research offers some interesting implications for nurses and nursing practice. School nurses appear to be separated from issues, decisions, policies, and education related to sexual health issues in the Tennessee public-school system. School nurses were hesitant to participate in this research about sexual health and education in Tennessee. This leads to questions about why

they choose to not engage in this research, why they do not want to share their voices related to this topic at this time. School nurses are not being used to the extent of their educational abilities. Schools and school nurses represent community assets that can help to improve both individual and community health (Wakefield et al., 2021). The school nurse should be able to use educational expertise and positioning to provide health education and meet community and public health needs as one of their nursing roles (Wakefield et al., 2021). However, school nurses need to have adequate funding, policy, and community support to accomplish these health goals for which they are uniquely qualified and positioned (Wakefield et al., 2021).

Limitations

The research was limited by several factors, including interrupted communication, fear of repercussions, and the researcher. These limitations likely each impacted low participation numbers.

Interrupted Communication

Recruitment started near the end of the school year in Tennessee. School nurses may have been bust with end-of-the-year activities and reporting. As recruitment continued over the summer, school nurses may have given less attention to work-related communications. Recruitment continued through the first months of the new school year which may also have been a busy time for school nurses. Recruitment materials and efforts may have been ignored or over-looked because of these timing issues.

The use of electronic communication via social media or electronic mail can have failures that go unrecognized. Some electronic mail is blocked by employers like schools and school systems if the sender is unknown. The sender is not necessarily made aware of communication that is blocked. Addresses may be old or may be entered incorrectly. Social media platforms may

block certain content. Social media platforms also manage who is exposed to what content. Neither electronic platform guarantees that the intended audience is reached.

Communication was interrupted by internet connectivity issues as well. One interview had to be conducted by telephone because the zoom link could not be maintained. The participant had unstable and inconsistent internet access that would not support the video conferencing application at the times that we attempted to use it.

Lack of Representation

Most participants were from rural communities in the western part of the state. The participant pool did not include a balanced mix of school nurses from a variety of communities across the state. More and different data might be obtained from different school nurses. This is supported by the different responses of the nurse from the urban community. This is also identified as a limitation in the study in Kansas that received responses primarily from nurses in urban areas of the state rather than rural (Smith et al., 2020).

Fear of Repercussions

The timing of the study in the current social, cultural, and historical context may have prevented potential participants from responding to recruitment materials. Responding to recruitment material via either recruitment method, several school nurses asked questions about the research related to anonymity and confidentiality. They had concerns about someone connecting them and their comments to the research. They mentioned potential repercussions that could impact their employment or their place in the community. Fear of repercussions may have limited participation. Research with school nurses in Kansas addressed the issue of comfort level of rural nurses in research participation having a participant pool largely from urban areas (Smith et al., 2020).

The Researcher

The researcher attempted several methods to identify biases and perspectives that could impact the research and the data analysis process. The researcher participated in a bracketing interview, conducted a pilot interview, and used journaling. During data analysis several discoveries occurred. First, the researcher's perspectives were often evident in the writing process. This was noted during writing consultation and review.

The researcher reflected on the processes used to manage bias and determined that journaling was not adequately reflective, reflexive, or iterative. The journaling process was not applied in a way that bias was managed. This discovery leads to questioning the impact of potential researcher bias.

Future Research

The results of this research combined with the lack of this type of research found in the literature emphasizes the problems inherent in addressing research problems that are highly complex, highly emotional, or both (Smith, 2007). Initial research efforts may need to be focused on policy analysis to determine the effectiveness of current policy in achieving intended outcomes. Policy analysis requires adequate resources, stakeholder buy-in, comparative results, and positive public opinion toward the work in order to begin to be successful (Milstead & Short, 2019). Stakeholder buy-in and positive public opinion related to the work of a policy analysis may be difficult to obtain in the context of the current political environment as public policy makers have removed questions concerning youth sexual behavior from the bi-annual YRBSS (CDC, 2023d).

Future research on sexual health and education may need to be focused outside the public-school system. The public schools have traditionally represented an access point for

health for the community in general and the children in the community specifically (Wakefield et al., 2021). The loss of that resource as a central point for meeting public health needs would be detrimental to many communities and their children. Alternatively, research could address providing school nurses with the power to provide adequate interventions or providing students access to public health nurses or clinics in or near schools.

Summary

The results of this research represent a disconnection among school nurses, school policies, and public health concerns. Existing power structures remove the school nurses from participation in policy development, direct education of students, and hinder their involvement in addressing both individual and public health concerns as they relate to sexual health and education. Different approaches to sexual health, sexual health education, and prevention of STDs and the needed research on these topics need to be developed especially in the current cultural and political context.

References

Alfonseca, K., Katersky, A., & Zepeda, R. (2023, July 26). *Teachers' association sues Tennessee education department over race education restrictions*. ABC News. https://abcnews.go.com/US/teachers-union-sues-tennessee-education-department-race-education/story?id=101633345

Alligood, M. R. (1997). The nature of knowledge needed for nursing practice. In M. R. Alligood & A. Marriner-Tomey (Eds.), *Nursing theory: Utilization and application* (pp. 3–13). Mosby.

American Association of Colleges of Nursing. (2019, April 1). *AACN fact sheet*. https://www.aacnnursing.org/news-Information/fact-sheets/nursing-fact-sheet

Arcury, T. A., & Quandt, S. A. (1999). Participant recruitment for qualitative research: A site-based approach to community research in complex societies. *Human Orgnaization*, *58*(5), 128–133.

ATLAS.ti. (2020). *Atlas.ti: The qualitative data analysis & research software*. https://atlasti.com/

Baiden, P., LaBrenz, C. A., Asiedua-Baiden, G., & Muehlenkamp, J. J. (2020). Examining the intersection of race/ethnicity and sexual orientation on suicidal ideation and suicide attempt among adolescents: Findings from the 2017 Youth Risk Behavior survey. *Journal of Psychiatric Research*, *125*, 13–20. https://doi.org/10.1016/j.jpsychires.2020.02.029

Banister, E. M., Begoray, D. L., & Daly, L. (2011). Responding to adolescent women's reproductive health concerns: Empowering clients through health literacy. *Health Care*

for Women International, *32*(4), 344–354. https://doi.org/10.1080/07399332.2010.536603

Beserra, E. P., Pinheiro, P. N. D. C., & Barroso, M. G. T. (2008). Nurse's educational action in the prevention of sexually transmitted diseases: An investigation based on adolescents. *Escola Anna Nery School Journal of Nursing*, *12*(3), 522–528. https://doi.org/10.1590/s1414-81452008000300019

Bond, L. (2013). *A Foucaldian discourse analysis of health disparities in nursing textbooks* (2013-99080-437) [Doctoral dissertation, Rush University]. APA PsycINFO. https://web.p.ebscohost.com/ehost/detail/detail?vid=8&sid=97bbaa83-b11a-4c7c-be87-518d4d2723a0%40redis&bdata=JkF1dGhUeXBlPWlwLHNoaWImc2l0ZT1laG9zdC1saXZlJnNjb3BlPXNpdGU%3d#AN=2013-99080-437&db=psyh

Buetow, S. (2019). Apophenia, unconscious bias and reflexivity in nursing qualitative research. *International Journal of Nursing Studies*, *89*, 8–13. https://doi.org/10.1016/j.ijnurstu.2018.09.013

Bureau of the Census. (2021, February 19). *Urban areas for the 2020 census-proposed criteria*. Federal Register. https://www.federalregister.gov/documents/2021/02/19/2021-03412/urban-areas-for-the-2020-census-proposed-criteria

Burnett, C., Ford-Gilboe, M., Berman, H., Ward-Griffin, C., & Wathen, N. (2015). A critical discourse analysis of provincial policies impacting shelter service delivery to women exposed to violence. *Policy, Politics, & Nursing Practice*, *16*(1-2), 5–16. https://doi.org/10.1177/1527154415583123

Buttner, A. (2021, January 5). *Diagnosing the school nurse shortage*. Frontline Education. https://www.frontlineeducation.com/blog/school-nurse-shortage/

Buus, N. (2005). Nursing scholars appropriating new methods: The use of discourse analysis in scholarly nursing journals 1996-2003. *Nursing Inquiry*, *12*(1), 27–33.

Center for Reproductive Rights. (2023). *After Roe fell: Abortion laws by state*. Retrieved October 1, 2023, from https://reproductiverights.org/maps/state/tennessee/

Centers for Disease Control and Prevention. (n.d.). *Atlas Plus*. Retrieved September 30, 2023, from https://cdc.gov/nchhstp/atlas/index.htm

Centers for Disease Control and Prevention. (2021, April 19). *National overview--sexually transmitted disease surveillance, 2019.* Centers for Disease Control and Infection. https://www.cdc.gov/std/statistics/2019/std-surveillance-2019.pdf

Centers for Disease Control and Prevention. (2022, January 5). *CDC - STD diseases & related conditions*. https://www.cdc.gov/std/general/default.htm

Centers for Disease Control and Prevention. (2023a). *2021-std-surveillance-state-ranking-tables* [PDF]. https://www.cdc.gov/std/statistics/2021/tables/2021-STD-Surveillance-State-Ranking-Tables.pdf

Centers for Disease Control and Prevention. (2023b, March 13). *What works: Sexual health education*. Adolescent and school health. Retrieved October 15, 2023, from https://www.cdc.gov/healthyyouth/whatworks/what-works-sexual-health-education.htm

Centers for Disease Control and Prevention. (2023c, April 18). *Sexually transmitted disease surveillance, 2021*. https://www.cdc.gov/std/statistics/2021/default.htm

Centers for Disease Control and Prevention. (2023d, April 27). *Adolescent and School Health: Youth Risk Behavior Surveillance System*. CDC High School YRBS. Retrieved October 15, 2023, from https://www.cdc.gov/healthyyouth/data/yrbs/index.htm

Chatterjee, C., Baur, B., Ram, R., Dhar, G., Sandhukhan, S., & Dan, A. (2001). A study on awareness of AIDS among school students and teachers of higher secondary schools in north Calcutta. *Indian journal of public health*, *45*(1), 27–30.

Clark, A. M. (1998). The qualitative-quantitative debate: Moving from positivism and confrontation to post-positivism and reconciliation. *Journal of Advanced Nursing*, *27*(6), 1242–1249. https://doi.org/10.1046/j.1365-2648.1998.00651.x

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). SAGE.

Dahnke, M. D., & Dreher, H. M. (2016). *Philosophy of science for nursing practice: Concepts and applications* (2nd ed.). Springer Publishing Company. https://doi.org/10.1891/9780826129291.0003

Daley, A. M., Polifroni, E. C., & Sadler, L. S. (2023). "Here I don't feel like a stranger": Adolescents' perspectives on school-based health centers. *The Journal of School Nursing*, *39*(3), 238–247. https://doi.org/10.1177/1059840520979661

Dickson, E., & Brindis, C. D. (2021). The double bind of school nurses and policy implementation: Intersecting the Street-Level Bureaucracy framework and teaching sexual health education. *The Journal of School Nursing*, *37*(4), 280–291. https://doi.org/10.1177/1059840519868764

Dickson, E., Parshall, M., & Brindis, C. D. (2020). Isolated voices: Perspectives of teachers, school nurses, and administrators regarding implementation of sexual health education policy. *Journal of School Health*, *90*(2), 88–98. https://doi.org/10.1111/josh.12853

Dillon, M., & Savage, S. (2006). Values and religion in rural America: Attitudes toward abortion and same-sex relations. *The Carsey Institute on Rural American*, *Fall 2006*(1). https://scholars.unh.edu/cgi/viewcontent.cgi?article=1011&context=carsey

Evans-Agnew, R. (2016). Asthma management disparities. *The Journal of School Nursing*, *32*(2), 99–111. https://doi.org/10.1177/1059840515588192

Evans-Agnew, R. A., Johnson, S., Liu, F., & Boutain, D. M. (2016). Applying critical discourse analysis in health policy research. *Policy, Politics, & Nursing Practice*, *17*(3), 136–146. https://doi.org/10.1177/1527154416669355

Fairclough, N. (2010). *Critical discourse analysis: The critical study of language* (2nd ed.). Routledge.

Fernandez, J., Gonzalez, R., Oves, J. C., Rodriguez, P., Castro, G., & Barengo, N. C. (2021). Illicit substance use disparities among lesbian, gay, and bisexual high school students in the U.S. in 2017. *Journal of Adolescent Health*, *68*(6), 1170–1175. https://doi.org/10.1016/j.jadohealth.2021.02.004

Flexner, S. B., & Hauck, L. C. (Eds.). (1993). *Random House unabridged dictionary* (2nd ed.). Random House.

Foucault, M. (2000). *Power (the essential works of Foucault, 1954-1984, vol. 3)* (J. D. Faubion & P. Rabinow, Eds.). The New Press.

Frame, K. (2003). Empowering preadolescents with ADHD. *Advances in Nursing Science*, *26*(2), 131–139. https://doi.org/10.1097/00012272-200304000-00005

Gee, J. P. (2014). *An introduction to discourse analysis: Theory and method* (4th ed.). Routledge.

Godfrey-Smith, P. (2003). *Theory and reality: An introduction to the philosophy of science (science and its conceptual foundations series)*. University of Chicago Press.

GreatSchools. (n.d.). *All school districts in tennessee, tn*. GreatSchools!. Retrieved January 31, 2023, from https://www.greatschools.org/schools/districts/Tennessee/TN/

Haley, T., Puskar, K., Terhorst, L., Terry, M., & Charron-Prochownik, D. (2012). Condom use among sexually active rural high school adolescents personal, environmental, and behavioral predictors. *The Journal of School Nursing*, *29*(3), 212–224. https://doi.org/10.1177/1059840512461282

Hardin, P. K. (2003). Shape-shifting discourses of anorexia nervosa: Reconstituting psychopathology. *Nursing Inquiry*, *10*(4), 209–217. https://doi.org/10.1046/j.1440-1800.2003.00189.x

Harper, C. R., Liddon, N., Dunville, R., & Habel, M. A. (2016). High school students' self-reported use of school clinics and nurses. *The Journal of School Nursing*, *32*(5), 324–328. https://doi.org/10.1177/1059840516652454

Hennessy-Harstad, E. B. (1999). Empowering adolescent with asthma to take control through adaptation. *Journal of Pediatric Health Care*, *13*(6), 273–277. https://doi.org/10.1016/s0891-5245(99)90019-6

Holloway, W., & Jefferson, T. (2016). Biography, demography and generalisability. In *Doing qualitative research differently: A psychosocial approach* (pp. 96–119). SAGE. https://doi.org/10.4135/9781526402233.n6

Homma, Y., Nicholson, D., & Saewyc, E. (2012). A profile of high school students exchanging sex for substances in rural Canada. *Canadian Journal of Human Sexuality*, *21*(1), 29–40.

Hulton, L. J. (2007). An evaluation of a school-based teenage pregnancy prevention program using a logic model framework. *The Journal of School Nursing*, *23*(2), 104–110. https://doi.org/10.1177/10598405070230020801

Jaworski, B. C., & Carey, M. P. (2001). Effects of a brief, theory-based std-prevention program for female college students. *Journal of Adolescent Health*, *29*(6), 417–425. https://doi.org/10.1016/s1054-139x(01)00271-3

Johnston, K., Harvey, C., Matich, P., Page, P., Jukka, C., Hollins, J., & Larkins, S. (2015). Increasing access to sexual health care for rural and regional young people: Similarities and differences in the views of young people and service providers. *Australian Journal of Rural Health*, *23*(5), 257–264. https://doi.org/10.1111/ajr.12186

Kao, T. A., & Manczak, M. (2012). Family influences on adolescents' birth control and condom use, likelihood of sexually transmitted infections. *The Journal of School Nursing*, *29*(1), 61–70. https://doi.org/10.1177/1059840512444134

Kuhn, T. S. (2012). *The structure of scientific revolutions: 50th anniversary edition* (4th ed.). University of Chicago Press.

Langille, D. B., Proudfoot, K., Rigby, J., Aquino-Russell, C., Strang, R., & Forward, K. (2008). A pilot project for chlamydia screening in adolescent females using self-testing. *Canadian Journal of Public Health*, *99*(2), 117–120. https://doi.org/10.1007/bf03405457

Lee, H. J., Winters, C. A., Boland, R. L., Raph, S. W., & Buehler, J. A. (2018). Concept analysis. In C. A. Winters & H. J. Lee (Eds.), *Rural nursing: Concepts, theory, and practice* (5th ed., pp. 31–43). Springer Publishing.

Lee, H., & Winters, C. (2004). Testing rural nursing theory: Perceptions and needs of service providers. *Online Journal of Rural Nursing and Health Care*, *4*(1), 51–63. https://doi.org/10.14574/ojrnhc.v4i1.212

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Pragmatic controversies, contradictions, and emerging confluences, revisted. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (5th ed., pp. 108–150). Sage.

Locke, T. (2004). *Critical discourse analysis*. Continuum.

Long, K. A., & Weinert, C. (1989). Rural nursing: Developing the theory base. *Scholarly Inquiry for Nursing Practice: An International Journal*, *3*, 113–127.

Majer, L. S., Santelli, J. S., & Coyle, K. (1992). Adolescent reproductive health: Roles for school personnel in prevention and early intervention. *Journal of School Health*, *62*(7), 294–297. https://doi.org/10.1111/j.1746-1561.1992.tb01246.x

McGrath, P., & Laliberte, E. B. (1974). Level of basic venereal disease knowledge among junior and senior high school nurses in Massachusetts: A survey. *Nursing Research*, *23*(1), 31–37. https://doi.org/10.1097/00006199-197401000-00008

McKeever, K. B. (2020, September). *Tennessee school health laws: Consolidated school health 2020* [PDF]. Tennessee Department of Health. https://www.tn.gov/content/dam/tn/education/documents/CSHSchoolHealthLaws2020.pdf

Miles, M. B., Huberman, A. M., & Saldana, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage.

Millanzi, W. C., Osaki, K. M., & Kibusi, S. M. (2022). The effect of educational intervention on shaping safe sexual behavior based on problem-based pedagogy in the field of sex

education and reproductive health: Clinical trial among adolescents in Tanzania. *Health Psychology and Behavioral Medicine*, *10*(1), 262–290. https://doi.org/10.1080/21642850.2022.2046474

Milstead, J. A., & Short, N. M. (2019). *Health policy and politics: A nurse's guide* (6th ed.). Jones & Bartlett Learning.

Mochaoa Rogers, M., Mfeka-Nkabinde, G., & Ross, A. (2019). An evaluation of male learners' knowledge, attitudes and practices regarding sexual and reproductive health in rural northern Kwazulu-Natal province. *South African Family Practice*, *61*(6), 239–245. https://doi.org/10.1080/20786190.2019.1664539

Morse, J. (2018). Reframing rigor in qualitative inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 796–817). SAGE.

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research*. U.S. Department of Health and Human Services. https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report-508c_FINAL.pdf

Ngabirano, T. D., Saftner, M. A., & McMorris, B. J. (2022). Exploring health behaviors in Ugandan adolescents living in rural fishing communities. *The Journal of School Nursing*, *38*(2), 148–160. https://doi.org/10.1177/1059840520947142

Paulsen, L. (2023, July 14). *Dobbs decision: Looking back and moving forward*. Stanford Medicine: Department of Medicine News. https://medicine.stanford.edu/news/current-news/standard-news/dobb-anniversary.html

Rabbitte, M., & Enriquez, M. (2019). The role of policy on sexual health education in schools: Review. *The Journal of School Nursing*, *35*(1), 27–38. https://doi.org/10.1177/1059840518789240

Rau, A., Elliker, F., & Coetzee, J. K. (2018). Collecting data for analyzing discourses. In U. Flick (Ed.), *The SAGE handbook of qualitative data collection* (pp. 300–313). SAGE. https://doi.org/10.4135/9781526416070.n19

Reisigl, M., & Wodak, R. (2016). The discourse-historical approach (DHA). In R. Wodak & M. Meyer (Eds.), *Methods of critical discourse studies* (3rd ed., pp. 23–61). SAGE Publications Ltd.

Richards, L., & Morse, J. M. (2013). *Readme first for a user's guide to qualitative methods* (3rd ed.). Sage Publications, Inc.

Romines, K. (2023, March 22). *Tennessee state profile - siecus*. SIECUS. Retrieved October 15, 2023, from https://siecus.org/state_profile/tennessee-state-profile-23/

Rose, I. D., & Friedman, D. B. (2016). Schools. *The Journal of School Nursing*, *33*(2), 109–115. https://doi.org/10.1177/1059840516678910

Roy, C. (2009). *The Roy Adaptation Model* (3rd ed.). Pearson Prentice Hall.

Saftner, M. A., Pruitt, K. S., & McRee, A.-L. (2019). Conversation, condoms, and contraception: How does communication with sexual partners affect safer sexual behaviors among American Indian youth? *The Journal of School Nursing*, *37*(2), 109–116. https://doi.org/10.1177/1059840519849097

Salau, O. R., & Ogunfowokan, A. A. (2019). Pubertal communication between school nurses and adolescent girls in Ile-Ife, Nigeria. *The Journal of School Nursing*, *35*(2), 147–156. https://doi.org/10.1177/1059840517727831

Salerno, J., Darling-Fisher, C., Hawkins, N. M., & Fraker, E. (2013). Identifying relationships between high-risk sexual behaviors and screening positive for chlamydia and gonorrhea in school-wide screening events. *Journal of School Health*, *83*(2), 99–104. https://doi.org/10.1111/josh.12004

Samkange-Zeeb, F., Mikolajczyk, R. T., & Zeeb, H. (2013). Awareness and knowledge of sexually transmitted diseases among secondary school students in two German cities. *Journal of Community Health*, *38*(2), 293–300. https://doi.org/10.1007/s10900-012-9614-4

Sanjakdar, F. (2021). Making sense of British Muslim parents' objections to 'progressive' sexuality education. *British Journal of Educational Studies*, *70*(2), 187–216. https://doi.org/10.1080/00071005.2021.1905770

Sasani, A. (2023, March 24). *Tennessee's rejection of $8.8 million in federal funding alarms HIV prevention groups*. The New York Times.

Serowoky, M. L., George, N., & Yarandi, H. (2015). Using the program logic model to evaluate ¡Cuídate!: A sexual health program for Latino adolescents in a school-based health center. *Worldviews on Evidence-Based Nursing*, *12*(5), 297–305. https://doi.org/10.1111/wvn.12110

Shields, B. (2023, October 3). *State commission recommends approval for ace charter school in Jackson*. The Jackson Post. https://jacksonpost.news/state-commission-recommends-approval-for-ace-charter-school-in-jackson/

Smith, J. L. (2007). Critical discourse analysis for nursing research. *Nursing Inquiry*, *14*(1), 60–70. https://doi.org/10.1111/j.1440-1800.2007.00355.x

Smith, S., Platt, J. M., Clifford, D., Preston, M., Satterwhite, C., Kelly, P. J., & Ramaswamy, M. (2020). A state-level examination of school nurses' perceptions of condom availability accompanied by sex education. *The Journal of School Nursing*, *36*(5), 386–393. https://doi.org/10.1177/1059840518824728

Sohn, B. K., Thomas, S. P., Greenberg, K. H., & Pollio, H. R. (2017). Hearing the voices of students and teachers: A phenomenological approach to educational research. *Qualitative Research in Education*, *6*(2), 121–148. https://doi.org/10.17583/qre.2017.2374

Swan, M. A., & Hobbs, B. B. (2018). Lack of anonymity: Changes for the 21st century. In C. A. Winters & H. J. Lee (Eds.), *Rural nursing: Concepts, theory, and practice* (5th ed., pp. 79–92). Springer Publishing.

Tennessee Department of Education. (2021). *Tennessee School Health Laws* [PDF]. https://www.tn.gov/content/dam/tn/education/documents/CSH_School_Health_Laws_2021.pdf

Tennessee Public Charter School Commission. (n.d.). *About us*. Retrieved October 15, 2023, from https://www.tn.gov/tn-public-charter-school-commission/about-us.html#:~:text=The%20Charter%20Commission%20took%20over,Education%20on%20January%201%2C%202021.

Thomas, S. P., & Pollio, H. R. (2004). *Listening to patients: A phenomenological approach to nursing research and practice*. Springer Publishing.

Thorne, S. (2013). Interpretive description. In C. T. Beck (Ed.), *Routledge international handbook of qualitative nursing research* (pp. 295–306). Routledge. https://doi.org/10.4324/9780203409527.ch22

Traynor, M. (2006). Discourse analysis: Theoretical and historical overview and review of papers in the journal of advanced nursing 1996-2004. *Journal of Advanced Nursing*, *54*(1), 62–72. https://doi.org/10.1111/j.1365-2648.2006.03791.x

Traynor, M. (2013). Discourse analysis. In C. T. Beck (Ed.), *Routledge international handbook of qualitative nursing research* (pp. 282–294). Taylor & Francis Group.

United States Department of Health and Human Services. (2020, June 25). *Defining rural population*. Guidance Portal. https://www.hhs.gov/guidance/document/defining-rural-population

United States Census Bureau. (2020). *Explore census data*. Retrieved May 9, 2022, from https://data.census.gov/cedsci/table?q=adolescents age 15 to 24

van Dijk, T. A. (2013). Multidisciplinary CDA: A plea for diversity. In R. Wodak & M. Meyer (Eds.), *Methods of Critical Discourse Analysis* (pp. 95–120). SAGE Publications, Ltd. https://doi.org/10.4135/9780857028020.n5

Wakefield, M., Williams, D. R., Le Menestrel, S., & Flaubert, J. L. (Eds.). (2021). *The future of nursing 2020-2030: Charting a path to achieve health equity*. National Academies Press. https://doi.org/10.17226/25982

Westwood, J., & Mullan, B. (2006). Knowledge of school nurses in the U.K. regarding sexual health education. *The Journal of School Nursing*, *22*(6), 352–357. https://doi.org/10.1177/10598405060220060701

Wetherell, M., Taylor, S., & Yates, S. J. (2001). *Discourse theory and practice: A reader*. SAGE Publications Ltd.

Winters, C. A., & Lee, H. J. (Eds.). (2018). *Rural nursing: Concepts, theory, and practice* (5th ed.). Springer . https://doi.org/10.1891/9780826161710

Wodak, R., & Meyer, M. (2001). *Methods of critical discourse analysis*. Sage.

Wood, M. J., & Ross-kerr, J. (2011). *Basic steps in planning nursing research: From question to proposal* (7th ed.). Jones & Bartlett Learning.

World Health Organization. (2019, June 19). *Sexually transmitted infections (STIs)*. https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis)

Yoder, R. E., Preston, D., & Forti, E. M. (1997). Rural school nurses 'attitudes about AIDS and homosexuality. *Journal of School Health*, *67*(8), 341–347. https://doi.org/10.1111/j.1746-1561.1997.tb03470.x

Zwilling, J. G. (2018). The nurse practitioner as rural healthcare provider. In C. A. Winters & H. J. Lee (Eds.), *Rural nursing: Concepts, theory, and practice* (5th ed., pp. 139–148). Springer Publishing.

APPENDICES

Appendix A: Table of Peer Reviewed Journal Articles Involving or Mentioning School Nurses and Sexuality or Sexual Health

Citation	Quantitative or Qualitative	Methods	Country of origin	How is the school nurse involved	Summary or Comments
Banister, E., Begoray, D., & Daly, L. K. (2011). Responding to Adolescent Women's Reproductive Health Concerns: Empowering Clients Through Health Literacy. *Health Care for Women International*, *32*(4), 344–354. https://doi.org/10.1080/07399332.2010.536603	n/a	Review of methods for empowering young women	Canada	School nurses not involved. School nurses spoken to	To maximize adolescent women's empowerment, health care providers need to take into account the context within which their health
Dickson, E., & Brindis, C. D. (2021). The double bind of school nurses and policy implementation: Intersecting the Street-Level Bureaucracy framework and teaching sexual health education. *The Journal of School Nursing*, *37*(4), 280–291. https://doi.org/10.1177/1059840519868764	quantitative	Reusing data from research below	USA	Data from school nurses only used for this study derived from the on below.	street-level bureaucracy framework used to better understand the many challenges school nurses face in implementing SHE policy
Dickson, E., Parshall, M., & Brindis, C. D. (2020). Isolated Voices: Perspectives of Teachers, School Nurses, and Administrators Regarding Implementation of Sexual Health Education Policy. *Journal of School Health*, *90*(2), 88–98. https://doi.org/10.1111/josh.12853	quantitative	survey	USA	School nurses surveyed along with teachers and administrators	Given perceived challenges regarding subject matter, successful SHE implementation at the local level requires committed stakeholders working in concert at the **school** and **community** levels, backed by strong policy commitment at the state level.

Haley, T., Puskar, K., Terhorst, L., Terry, M. A., & Charron-Prochownik, D. (2013). Condom Use Among Sexually Active Rural High School Adolescents Personal, Environmental, and Behavioral Predictors. *Journal of School Nursing*, *29*(3), 212–224. https://doi.org/10.1177/1059840512461282	quantitative	Survey cross-sectional, descriptive, correlational/ comparative study	USA	School nurses are not directly involved but are encouraged to incorporate identified predictors of condom use when considering interventions promoting safer sexual behaviors among rural youth.	The purpose of this article is to identify and describe personal, environmental, and behavioral factors that predict condom use among rural youth in grades 9–12.
Homma, Y., Nicholson, D., & Saewyc, E. M. (2012). A profile of high school students in rural Canada who exchange sex for substances. *Canadian Journal of Human Sexuality*, *21*(1), 29–40.	Quantitative	Survey East Kootenay Adolescent Drug Use Survey	Canada	School nurses are not directly involved but the researcher suggest the need for in-school education	Addressing issues of substances for sex exchanges among adolescents in grades 7-12.
Hulton LJ. (2007). An evaluation of a school-based teenage pregnancy prevention program using a logic model framework. *Journal of School Nursing*, *23*(2), 104–110. https://doi.org/10.1177/10598405070230020801	Mixed methods	Intervention & control groups questionnaire comparison Focus groups with intervention group	USA	School nurses not involved. Work intended to help school nurses evaluate a program	significant cooperation and support from the school board, administrators, nursing services, teachers, and parents will be key factors in success of school-based teenage pregnancy prevention programs

Johnston, K., Harvey, C., Matich, P., Page, P., Jukka, C., Hollins, J., & Larkins, S. (2015). Increasing access to sexual health care for rural and regional young people: Similarities and differences in the views of young people and service providers. *Australian Journal of Rural Health*, *23*(5), 257–264. https://doi.org/10.1111/ajr.12186	Mixed methods	A cross-sectional mixed-methods study design involving semi-structured interviews with health service providers and an electronic survey with young people	Australia	School nurses interviewed along with other health providers 6 of 32 were school nurses. Teens were surveyed	attitudes of service providers and their relationships with youth are of greater significance than recognized by service providers service providers want greater access for youth
Langille DB, Proudfoot K, Rigby J, Aquino-Russell C, Strang R, Forward K, Langille, D. B., Proudfoot, K., Rigby, J., Aquino-Russell, C., Strang, R., & Forward, K. (2008). A pilot project for chlamydia screening in adolescent females using self-testing: characteristics of participants and non-participants. *Canadian Journal of Public Health*, *99*(2), 117–120. https://doi.org/10.1007/bf03405457	quantitative	Cross-sectional survey	Canada	School health services provided access to self-test kits. School nurses were not directly involved in the study	School health services could be used to provide counseling/information to encourage self-testing. Self-testing rates were low among sexually active females in the study even with an understanding of zero s/s can be present with C. trachomatis
Majer, L. S., Santelli, J. S., & Coyle, K. (1992). Adolescent reproductive health: Roles for school personnel in prevention and early intervention. *Journal of School Health*, *62*(7), 294–297. https://doi.org/10.1111/j.1746-1561.1992.tb01246.x	n/a	Review of importance of various roles	USA	Roles of school nurse included in the discussion	Addressing issues of role responsibilities and development in the reproductive health of adolescents.
McGrath, P., & Laliberte, E. B. (1974). Level of basic venereal disease knowledge among junior and senior high school nurses in Massachusetts: A survey. *Nursing Research*, *23*(1), 31–37. https://doi.org/10.1097/00006199-197401000-00008	Quantitative	Questionnaire	USA	School nurses subjects for the research	School nurses in 1974 lacked the more extensive knowledge of STDs to be effective in teaching and curriculum development

Mochaoa Rogers, M., Mfeka-Nkabinde, G., & Ross, A. (2019). An evaluation of male learners' knowledge, attitudes and practices regarding sexual and reproductive health in rural northern KwaZulu-Natal province. *South African Family Practice*, *61*(6), 239–245. https://doi.org/10.1080/20786190.2019.1664539	quantitative	Survey observational, descriptive cross-sectional study	South Africa	Not involved. Noted that school health nurses and personal need to be involved	Young men 12-18 need intervention related to health seeking behaviors, attitudes towards women, and risk-taking behaviors. Strategies need to be developed to enhance socially acceptable and comprehensive sexual and reproductive health education and services among young men in this area, foster positive attitudes towards women and encourage gender-equal relationships.
Saftner, M. A., Pruitt, K. S., & McRee, A.-L. (2019). Conversation, condoms, and contraception: How does communication with sexual partners affect safer sexual behaviors among American Indian youth? *The Journal of School Nursing*, *37*(2), 109–116. https://doi.org/10.1177/1059840519849097	quantitative	Secondary data analysis	USA	Not involved. Noted implications for school nurses.	Sexually active Native American youth communicated with sexual partners at least once about STI prevention measures. School nurses can help educate youth on partner communication.
Salau, O. R., & Ogunfowokan, A. A. (2019). Pubertal communication between school nurses and adolescent girls in Ile-Ife, Nigeria. *The Journal of School Nursing*, *35*(2), 147–156. https://doi.org/10.1177/1059840517727831	Mixed methods	cross sectional descriptive using reliable & valid instrument interviews	Nigeria	School nurses were interviewed for the qualitative portion of the work	Communication between adolescent girls and school nurses is important to achieving adequate sexual and reproductive health for these young women.
Salerno, J., Darling-Fisher, C., Hawkins, N. M., & Fraker, E. (2013). Identifying relationships between high-risk sexual behaviors and screening positive for chlamydia and gonorrhea in school-wide screening events. *Journal of School Health*, *83*(2), 99–104. https://doi.org/10.1111/josh.12004	quantitative	Surveys Urine screening	USA	Not involved directly. Study used school-based education	School-based education and intervention can be improved with adolescent ability to keep services confidential. Adolescents need increased access to sexual health services

Serowoky, M. L., George, N., & Yarandi, H. (2015). Using the program logic model to evaluate ¡Cuídate!: A sexual health program for Latino adolescents in a school-based health center. *Worldviews on Evidence-Based Nursing*, *12*(5), 297–305. https://doi.org/10.1111/wvn.12110	quantitative	Education intervention with pre and post testing	USA	School nurses not identified Intervention delivered by school-based health personnel	Nurses in school-based health clinics can be effective providers of sexual health education and intervention. School-based health providers have an opportunity to build trusting relationships that lead to successful intervention
Smith, S., Platt, J. M., Clifford, D., Preston, M., Satterwhite, C., Kelly, P. J., & Ramaswamy, M. (2020). A state-level examination of school nurses' perceptions of condom availability accompanied by sex education. *The Journal of School Nursing*, *36*(5), 386–393. https://doi.org/10.1177/1059840518824728	quantitative	Survey Cross sectional design	USA	School nurses were the subjects	School nurses supported condom availability, felt distribution and education was within scope of practice, but they feel impaired by barriers from administration, policies, community beliefs, and parents.
Westwood J, & Mullan B. (2006). Knowledge of school nurses in the U.K. regarding sexual health education. *Journal of School Nursing*, *22*(6), 352–357. https://doi.org/10.1177/10598405060220060701	quantitative	survey	UK	School nurses were the subjects who completed the survey	general knowledge of the topic was adequate, but insufficient knowledge to effectively teach about sexually transmitted infections or emergency contraception. may have inadequate knowledge about sexual health to contribute to sex education in schools
Yoder RE, Preston DB, & Forti EM. (1997). Rural school nurses' attitudes about AIDS and homosexuality. *Journal of School Health*, *67*(8), 341–347. https://doi.org/10.1111/j.1746-1561.1997.tb03470.x	Quantitative	Questionnaire Instruments with demonstrated validity & reliability	USA	Subjects	The role of the school nurse is important in this context though nurses feel underprepared for managing children with HIV/AIDS or for helping teachers and students navigate the issues surrounding the disease.

Appendix B: REDCap Survey Approved by ETSU IRB

School Nurses and Sexual Health/Education

Please complete the survey below.

Thank you!

Informed Consent
yes
no

Are you a registered nurse (RN) in Tennessee?
Yes
No

Are you currently or have you been in the past 18 months a school nurse in a public K-12 school in Tennessee?
Yes
No

What is your highest level of nursing education?
Associate Degree
Diploma
Baccalaureate Degree
Master's Degree
Doctor of Nursing Practice
PhD
Prefer not to answer

How long, in years, have you been a RN?
_____

How long, in years, have you been a school health nurse?
_____

How old are you, in years?
_____

What is your gender identity?
male
female
other
prefer not to answer

You indicated "other" under gender identity. Please indicate your gender identity in the text box.
_____

With which racial or ethnic group(s) do you identify?

African American/Black
Asian American
Hispanic (non-white)
Indigenous
White/Caucasian
Prefer not to answer

Do you consider the community/students that you serve as a school health nurse to be:
urban
suburban
rural
mixed

You indicated that your community/students are a mix of rural, suburban, and/or urban. Please use the text bock to indicate what percentage you consider rural, suburban, and urban.

_____

In which Tennessee county do you work?

_____

Approximately how many students do you have direct responsibility for in your role as school health nurse?

_____

What grade level are the students that you have direct responsibility for? Select all that apply.
Pre-K
K
1st
2nd
3rd
4th
5th
6th
7th
8th
9th
10th
11th
12th
I do not have direct responsibility for student

Approximately how many students do you have indirect or oversight responsibility for?

_____

What grade levels are the students that you have indirect responsibility for? Select all that apply.
Pre-K
K
1st
2nd
3rd

4th
5th
6th
7th
8th
9th
10th
11th
12th
I do not have indirect responsibility for any students.

Do you have any role in the sexual health education of students as part of your job?
Yes
No

You indicated that you have a role in the sexual health education of your students as part of your job. Please explain your role in the box provided or upload a document below.

Please upload your document here.

Do you have a role in the sexual health of students as part of your job?
Yes
No

You indicated that you have a role in the sexual health of students. Please explain your role in the box provided or upload a document below.

Please upload your document here.

Do you provide guidance to other employees on the sexual health and/or sexual health education of students?
Yes
No

You indicated that you provide guidance to other employees on the sexual health and/or sexual health education of students. Please explain your role in the box provided or upload a document below if you prefer.

Please upload your document here.

How would you describe the community that you serve in political terms?
liberal
conservative
varied
do not know
prefer not to answer
other

You indicated "other" for the political environment of the community that you serve. Please explain in the text box.

How would you describe the community that you serve in religious terms?
not religiously oriented
mixed faiths
primarily Christian
primarily conservative Christian
prefer not to answer
other

You indicated "other" for your description of religion in your community. Please explain in the text box

How would you describe yourself in political terms?
liberal
conservative
centrist
other

You indicated "other" when describing yourself in political terms. Please explain in the text box.

Do you identify with a political party?
Yes
No

Please indicate which political party you identify with.
_____

How would you describe yourself in religious terms?
not religious
liberal
conservative
centrist
other

Do you identify with a specific religion or denomination?
Yes
No

Please specify which religion or denomination that you identify with in the text box.
_____

Can you describe local policy on sexual health education for students in the school(s) that you serve? You can type directly into the text box. If you prefer to upload a document instead, you may do so below.

Please upload your document here.

Do you serve a community with a pregnancy rate of 19.5 per 1,000 or greater for teens 15 to 17 years?
yes
no
do not know

Please indicate the pregnancy rate for 15 to 17-year-olds for the community you serve. Please enter the number 999
if you do not know.

_____

Would you describe an experience that you had with the sexual health or sexual health education of students? You can type directly into the text box. If you prefer to upload a document instead, you may do so below.

Please upload your document here.

Would you describe an experience that you had with another adult (nurse, administrator, teacher, parent, etc.) concerning the sexual health or sexual health education of students? You can type directly into the text box. If you prefer to upload a document instead, you may do so below.

Please upload your document here.

Do you have anything else that you would like to share? You can type directly into the text box. If you prefer to upload a document instead, you may do so below.

Please upload your document here.

If you are willing to participate in a follow-up interview via video conferencing software (Zoom), please enter your email into the text box.

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Appendix C: Guiding Questions Approved by ETSU IRB

GUIDING QUESTIONS FOR QUALITATIVE INTERVIEW

1. Would you tell me about your perceived role with the sexual health and/or sexual health education of students?
    a. Ask to identify/discuss specific experiences/interactions.
2. Would you discuss your perceived roles or experiences with health policy? Sexual health policy?
    a. Ask to identify/discuss specific experiences/interactions.
3. Would you tell me about your experiences with sexual health/education and the community?
    a. Ask to identify/discuss specific experience/interactions.
4. Would you tell me about being supported or not supported in your role by administration, parents, teachers, community?
    a. Supported in your role related to sexual health and/or sexual health education?
5. Is there anything else that you would like to share at this time?

VITA

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Wake, A. R., Cooley, D., Greer, A., Roberson, C., & Sellers, M. (2022). A community-based telehealth clinical experience to enhance associate degree nursing student learning during the COVID-19 pandemic. Association of Community Health Nursing Educators (ACHNE) conference, e-poster.

Wake, A. R., Weierbach, F. R., Swindle, J., Fletcher, R. A., Keener, J., & Mamudu, H. (2022). Interdisciplinary mentorship for graduate nursing student research in community health. Association of Community Health Nursing Educators (ACHNE) conference, e-poster.

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