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Primary Care Providers' Perceptions of Adolescent Friendly Health Services in Relationship to Adolescent Pregnancy

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2020

Abstract

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by

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MS, D'Youville College, 2008

BS, Daemen College, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

According to recent research, adolescent health continues to be a public health concern. The purpose of this qualitative research was to identify the perceptions of primary care providers regarding adolescent friendly health services and the relationship to adolescent pregnancy. The theoretical and conceptual framework used for this research included the social ecological model and the recommendations of the World Health Organization (WHO) for providing adolescent friendly health services. Using a phenomenological qualitative research approach, interviews were conducted over the telephone. Data analysis included hand coding with emerging themes and subthemes in relationship to each research question. The results of the analysis indicated there was a lack of familiarity with the WHO's domains of adolescent friendly health services. The research also revealed that the primary care providers felt that adolescent friendly health services influence adolescent pregnancy. The primary care providers discussed that by providing services that were adolescent friendly that there may be a decrease in adolescent pregnancy. The adolescent population may benefit from this research through the potential upscaling of adolescent friendly health services. The upscaling of adolescent friendly health services may lead to positive social change by decreasing adolescent pregnancy and improving health outcomes for the adolescent population.

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Dedication

This dissertation is dedicated to all the adolescent girls who inspire my research.

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I would like to acknowledge the support and encouragement I have received from my committee members. Thank you to Dr. Egondu Onyejekwe, Dr. Jennifer Oliphant and Dr. Loretta (Cain) Shields. Dr. Egondu Onyejekwe thank you for the constant guidance to ensure I followed the correct process and met the requirements with quality work. Dr. Jennifer Oliphant thank you so much for being the expert in the field providing constant insight. Thank you mostly for your encouragement support and your enthusiasm for the topic. I appreciate the advice in ways to improve the quality of work and make the research relevant to the current climate of health. Dr. Loretta (Cain) Shields thank you for reviewing my work to ensure the best quality. Thank you to Nancy Pfuntner for sharing this journey with me every step of the way, your kindness and patience is so much appreciated and I share this accomplishment with you because I could not have done it alone! I would also like to thank all of the amazing mentors that have been put in my path and inspired me to continue my education. Thank you to Dawne Olbrych, Lisa Bagdan, and Christine Jones for the guidance and inspiration to work to improve the lives of those around me through education, research, and practice. I also want to show gratitude to the participants of this research as it would not be possible without their dedication to providing exceptional care to the adolescent population. Lastly thank you to my loving family who has shown patience and sometimes tolerance for my constant obsession with creating opportunities to improve health outcomes for the adolescent population.

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Chapter 1: Introduction to the Study

The World Health Organization (WHO, 2019) has developed many initiatives to improve the maternal child and infant population's health outcomes with a specific focus on the health of adolescents nationally and internationally. One initiative is to address the public health issue of adolescent pregnancy. The initiative is to provide health services that are adolescent friendly (WHO, 2015). Adolescent friendly health services include health services that meet a set of quality standards outlined by the WHO; these health services are equitable, accessible, acceptable, effective, and appropriate (Chandra-Mouli, Camacho, & Michaud, 2013).

Chapter 1 discusses background information about the relationship between adolescent friendly health services and adolescent pregnancy and presents the problem statement. The purpose of the study and the statement of the research questions is discussed in this chapter. The theoretical and conceptual framework is reviewed along with a rationale for the selected research design. Definitions that are pertinent to the research are stated with a list of assumptions. The scope and delimitations are discussed with limitations and the significance of the research.

Background

The literature on the topic of the public health issue of adolescent pregnancy is plentiful as this has been an ongoing public health issue that has been recognized by the WHO as causing many health, social, and economic implications (WHO, 2019). The research spans areas addressing the incidence, prevention strategies, and the implications of adolescent pregnancy. This qualitative and quantitative research provides insight to

support the concept that adolescent pregnancy is an ongoing public health issue. Although there is significant literature that addresses the public health issue of adolescent pregnancy, there is limited research that explores the relationship between adolescent pregnancy and adolescent friendly health services (Chandra-Mouli, Chatterjee, & Bose, 2016). The existing current research conducted on the topic of adolescent friendly health services pertains to different countries including India, Moldova, and Colombia (Carai, Bivol, & Chandra-Mouli, 2015; Hoopes, Agarwal, Bull, & Chandra-Mouli, 2016). There is limited literature found on adolescent friendly health services and the relationship to adolescent pregnancy in the United States or New York State.

In this research, I addressed the gap in the literature that exists regarding the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. This research is essential to building on the body of knowledge regarding the use of adolescent friendly health services to address the public health issue of adolescent pregnancy. This research has the potential to increase awareness and upscaling of adolescent friendly health services, decrease adolescent pregnancy and therefore to improve reproductive health outcomes for all adolescents.

Problem Statement

Although trends for adolescent pregnancy have been on the decline for the United States there is still a significant concern for adequate reproductive health services to meet the needs of the adolescent population (Burrus, 2018). The effects of adolescent pregnancy include poor long-term physical, social, and emotional outcomes for the mother and newborn (Diaz & Fiel, 2016). The WHO continues to set goals and strategies

to ensure adolescents feel safe and secure when receiving reproductive health services in primary care settings (Chandra-Mouli et al., 2013). The WHO identifies five contributing domains that lead to providing adolescent friendly health services. These domains include health services that are equitable, accessible, acceptable, effective, and appropriate (Chandra-Mouli et al., 2013). After a review of the literature regarding adolescent pregnancy and adolescent friendly health services, I found a gap in the literature that explores the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy in the United States. Denno, Hoopes, and Chandra-Mouli (2015) stated further research is needed to determine if adolescent friendly health services influence on adolescent pregnancy. This research has the potential to provide positive social change by upscaling adolescent friendly health services by primary care providers to address the public health problem of adolescent pregnancy and therefore improving adolescent health outcomes.

Purpose

With this qualitative study I aimed to understand the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. The qualitative approach helps gain an in-depth understanding of how adolescent friendly health services in the primary care setting influence adolescent pregnancy.

Research Questions

RQ1: What familiarity do primary care providers have with the WHO's domains for adolescent friendly health services?

RQ2: What adolescent friendly health services are provided in the primary care setting to address adolescent pregnancy?

RQ3: How do adolescent friendly health services in the primary care setting influence adolescent pregnancy?

Theoretical and Conceptual Framework

The application of theoretical principles to public health research is essential to the research, to provide alignment, and determine the rationale for the research. The application of theory provides quality and rigor within the research (Glanz, Rimer, & Viswanath, 2015). Determining the best theoretical framework involves the reviewing of literature to determine appropriate theory for the topic of adolescent health (Glanz et al., 2015). The social ecological model was used to investigate the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. This model was developed in the 1980s by Bronfenbrenner and later further developed by McLeroy in 1988 (Glanz et al., 2015). The use of the social ecological model assists the researcher to develop a better understanding of the social and environmental influences involved in public health promotion (Glanz et al., 2015). The social ecological model is used as a framework when conducting research regarding adolescent friendly health services in relationship to adolescent pregnancy. The conceptual framework was based on the WHO's 2012 guidebook *Making Health Services Adolescent Friendly: Developing National Quality Standards for Adolescent Friendly Health Services* based on the dimensions of quality health services to adolescents.

Nature of the Study

The phenomenological descriptive qualitative approach was used to gain the greatest amount of information regarding primary care providers' perceptions of adolescent friendly health services in relationship to adolescent pregnancy. According to Patton (2015), this phenomenological approach is useful for examining the shared lived experiences of individuals. The individuals of interest include the primary care providers who provide health care services to the adolescent population. The data collection process includes in-depth interviewing to gain insight into the lived experiences of the primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. Patton (2015) stated that a challenge of this approach is to remain reflective as the researcher and to limit bias regarding the topic. Reflectivity is essential when using a phenomenological approach to research (Vagle, 2018).

Definitions

Acceptable: Adolescents are willing to obtain the health services that are available (WHO, 2020).

Accessible: Adolescents are able to obtain health services that are available (WHO, 2020).

Adolescence: The age range between 10-19 years (WHO, 2020).

Adolescent friendly health services: A group of dimensions of quality health services for adolescents that include equitable, accessible, acceptable, appropriate, and effective (WHO, 2020).

Adolescent pregnancy: A biological process of conception in a female between the ages of 10-19 (Cherry & Dillion, 2014).

Appropriate: The right health services are provided for adolescents (WHO, 2020).

Effective: The right health services are provided in the right way and make a positive contribution to the adolescent's health (WHO, 2020).

Equitable: All adolescents, not just some groups of adolescents, are able to obtain the health services available (WHO, 2020).

Health disparities: Differences in health outcomes and their causes among groups of people (Centers for Disease Control and Prevention [CDC], 2016).

Health equality: When everyone has the opportunity to be as healthy as possible (CDC, 2016).

Primary care: Care provided by physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern (the "undifferentiated" patient) not limited by problem origin (biological, behavioral, or social), organ system, or diagnosis (American Academy of Family Physicians, 2019).

Sexual health: A state of well-being in relation to sexuality across the life span that involves physical, emotional, mental, social, and spiritual dimensions (New York State Department of Health [NYSDOH], 2019).

Social determinants of health: Factors that contribute to a person's current state of health. These factors may be biological, socioeconomic, psychosocial, behavioral, or social in nature. Scientists generally recognize five determinants of health of a

population: biology, individual behavior, social environment, physical environment, health services (CDC, 2016).

Social ecological model: This model considers the complex interplay between individual, relationship, community, and societal factors (CDC, 2016).

Assumptions

This research was based on many assumptions, including that primary care providers have a general interest in the holistic health of patients of all developmental ages. According to Cherry and Dillion (2014), it is assumed that adolescent pregnancy is a biological process that requires health care providers to address the physical, reproductive, and emotional needs of the adolescent. Another assumption was the availability and willingness of primary care providers to participate meaningfully in this research based on the importance of providing holistic care that encompasses the needs of the adolescent to achieve optimal health.

Scope and Delimitations

The scope of this research was based on both the theoretical and conceptual frameworks. The public health issue of adolescent pregnancy was the focus with an overall goal to improve maternal child health. The specific focus of this research was based on the WHO's recommendations for ensuring health services are adolescent friendly, to meet the needs of the adolescent community and address the public health issue of adolescent pregnancy. The boundaries of this study included primary care providers. The population was chosen due to the influence primary care providers have on the adolescent population.

There are many theories and frameworks that could have been applied to this research that were not used. One theory considered was the health belief model which includes the understanding of why people participate in behaviors that either make them healthy or prevent harm (Glanz et al., 2015). This theory was not used as I focused the investigation on the behaviors of the primary care providers as opposed to the adolescents. The participants were chosen based on my ability to gain insight into their perceptions of adolescent friendly health services in relationship to adolescent pregnancy. One goal of this research was to ensure that the results would be applicable to other studies involving the adolescent population.

Chung, Kim, and Lee (2018) suggested that the best approach to the public health issue of adolescent pregnancy would include a mixed methods approach. However, my focus for this research was to gain insights from participants so a qualitative approach was more appropriate. This approach was also more feasible in terms of gathering data and achieving results. The qualitative approach was appropriate to address the research questions. A goal for future research is to include adolescents as participants as well as to use a mixed methods approach.

Transferability is an essential component to qualitative research. According to Ravitch and Carl (2016), transferability is the possibility of the research being applied to different areas of interest and in different contexts. The goal of this research was to explore the perceptions of the primary care providers regarding adolescent friendly health services and have the research transfer to other areas of practice including policy change in the administration of health care services. Nguyen, Costenbader, Plourde, Kerner, and

Igras (2019) conducted research regarding the scaling up process of implementing reproductive health services for the adolescent population. The researchers concluded that their research was transferable to other research with similar topics. One of my goals is that this research will be used further by other researchers who build upon what is provided to upscale adolescent friendly health services by primary care providers to improve adolescent reproductive health outcomes.

Limitations

The limitations that were expected included the accessibility and availability of participants. The limitations of access to participants was due to geographic location and the inability to conduct in-depth interviews face-to-face. Due to restrictions in place interviews were conducted over the telephone as opposed to face to face. This was a limitation, as I was unable to observe nonverbal communication. This had an influence on the quality and depth of data collected. Another limitation of the study was that the participants were from three major areas of the state and did not represent all areas of the state. Other limitations included potential for bias due to the researcher being a parent of an adolescent female and a consumer of primary care services and having worked in the primary care setting. This potential bias was minimized through the process of using journaling for reflexivity.

Significance

The significance of conducting qualitative research on the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy is to fill the gap in the literature. Gaining insight into primary care providers'

perceptions of adolescent friendly health services may add to the body of knowledge to improve reproductive health care for adolescents. Such knowledge may assist in the upscaling of adolescent friendly health services by primary care providers to minimize adolescent pregnancy and improve adolescent health outcomes.

Summary

In summary, many important concepts were discussed in Chapter 1, including the need to provide quality adolescent friendly health services to improve the health outcomes of adolescents. The application of the domains presented by the WHO as the standard for adolescent friendly health services provided in the primary care setting has been discussed. After conducting this research I gained insight into primary care providers' perceptions on adolescent friendly health services and how they influence adolescent pregnancy. Chapter 2 includes a review of the current literature regarding adolescent friendly health services and adolescent pregnancy. The social ecological model and the WHO standards have been used as a conceptual framework for the literature review.

Chapter 2: Literature Review Outline

Introduction

The WHO continues to set goals and strategies to improve reproductive health outcomes for the adolescent population (Chandra-Mouli et al., 2013). The WHO identified five contributing concepts that lead to providing adolescent friendly health services; these include health services that are equitable, accessible, acceptable, effective, and appropriate (Chandra-Mouli et al., 2013). I identified a gap in the literature regarding the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy in the United States. According to Denno et al. (2015), there is further research needed to explore adolescent friendly health services and how they may influence adolescent pregnancy. Exploring the perceptions of primary care providers on adolescent friendly health services has the potential to provide positive social change. This can be accomplished through increasing primary care providers' awareness of adolescent friendly health services and then upscaling these services. This would better address the public health problem of adolescent pregnancy and therefore improve adolescent health outcomes. The purpose of this qualitative study was to understand the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. The qualitative approach assisted in gaining an in-depth understanding of how adolescent friendly health services in the primary care setting influence adolescent pregnancy.

In this chapter, the current literature is outlined to frame a better understanding of the perceptions of primary care providers regarding adolescent friendly health services in

relationship to adolescent pregnancy. This chapter includes the discussion of the application of the theoretical framework and conceptual framework. The following major concepts have been identified in the review of the literature along with the application of the theoretical framework: adolescent pregnancy, adolescent friendly health services, youth-friendly adolescent services, primary care, the WHO, adolescent pregnancy prevention, and the socioecological model.

Literature Search Strategy

I conducted a review of the literature with assistance from the Walden health sciences librarian. The keywords and search phrases included but were not limited to the following: *adolescent pregnancy, teen pregnancy, adolescent friendly health services, primary care, primary care providers, reproductive health services, health professionals, youth clinics, Bright Futures, pediatrics,* and *American Academy of Pediatrics (AAP) recommendations.* The databases used included Embase, CINHAL, MEDLINE, and ProQuest. The search also included specific public health journals to ensure the relationship of the topic to public health. After I completed a general search, I included a more detailed search with each major concept covered in the literature review to obtain current research relevant to the topic.

The search included literature on the topics listed and then an evaluation for relevancy and the timeframe in which the research was conducted. The research was included if it was conducted within the last 5 years unless it was needed to provide a historical perspective of the public health issue. Other research that I considered were historical references to explain the theoretical approach. After I completed a general

search, I included a more detailed search with each major concept covered in the literature review to obtain current research relevant to the topic.

I also conducted a review of Walden University Dissertations using the terms *adolescent pregnancy* and *adolescent friendly health services*. This search revealed zero dissertations with both terms used in quotation marks. With the terms used without quotation marks, 303 dissertations were found to have relevant similar topics, but none were identified as presenting research on adolescent friendly health services as defined by the WHO.

Minimal research on adolescent friendly health services was found within the United States; however, other countries have begun this research in various aspects. Although adolescent friendly health services can be related to different public health issues, for the purpose of this dissertation, the search was to relate to adolescent pregnancy. I also conducted a search using the author Chandra-Mouli. This author has been involved in research on adolescent friendly health services and holds a position with the WHO Adolescent Sexual and Reproductive Health (ASRH) in the Department of Reproductive Health and Research. Using Chandra-Mouli's name in the author search provided many valuable research articles that applied to the topic of interest.

Reproductive health services became a key search term after minimal research found on adolescent friendly health services. Other search terms that revealed valuable references included *sexually transmitted diseases* and *adolescent pregnancy prevention*.

Theoretical Foundation

I used the social ecological model as the theoretical foundation of this research. This model was developed to help understand the connectedness between individuals and their physical and sociocultural environment (Glanz et al., 2015). The social ecological model originated from Bronfenbrenner's (1979) theory involving the micro-, meso-, and exosystem approach along with McLeroy's five levels of influence. The five levels of influence are intrapersonal, interpersonal, institutional, community, and policy.

The social ecological model is used to gain better insight into the ecological perspective of behavior. The social ecological model consists of five principles: multiple levels of influence on health behaviors, environmental context, influences on behaviors across levels, creating behavior-specific models, and utilization of multilevel interventions in changing behaviors. These principles are generalizable and can be applied across different health behaviors. The assumptions of this model include the application of the principles to public health issues that involve the multilevel influences over health behaviors. The premise of the social ecological model includes the ability for individuals to make health decisions based on environments that are attractive, economical, and convenient (Glanz et al., 2015). This model helps public health professionals identify how and why certain populations react biologically to their social condition. When this model is applied to the assessments of populations, public health care professionals can help determine how social conditions affect illness and disease. Using the levels of influence helps to determine connections to larger social networks that include the family, community, environment, social institutions, and government.

Literature provides examples of application of the social ecological model that influence health behaviors such as tobacco control, obesity, HIV, and adolescent health. Wold and Mittelmark (2018) used the social ecological model to guide their research on adolescent health in three unique ways. The first included health promotion in the school setting, the second included creating a good psychosocial learning environment, and the third focused on well-being through the creation of an environment that focused on social inclusion and community (Wold & Mittelmark, 2018). Cherry and Dillion (2014) discussed the importance of approaching adolescent pregnancy from an ecological perspective taking into consideration the environmental factors that influence adolescent pregnancy.

I used the social ecological model as a framework for understanding the relationship of environmental influences to the public health problem of adolescent pregnancy. The social ecological model has been used for public health issues that require multiple levels of interventions to create social change focusing on policy and environmental changes (Glanz et al., 2015). The social ecological model is applicable due to the influences of multiple environmental considerations on the promotion of adolescent friendly health services.

The social ecological model was used as a basis for exploring the research questions. These research questions focused on the perceptions of primary care providers in the primary setting. The research questions also focused on how adolescent friendly health services are provided in the primary care setting and the influence on adolescent pregnancy. The research questions were based on adolescent health services in the

primary care setting and whether they were perceived to be adolescent friendly. This social ecological model was used to gain better insight to the quality of the health services. This model can be applied by assessing the primary care environments and how they affect decisions regarding health services for the adolescent population. Applying this model can create a framework to explore the multiple levels of influence that exist regarding the public health issue of adolescent pregnancy, including family, community, environment, social institutions, and government. Chung et al. (2018) supported the use of Bronfenbrenner's ecological model for conducting research on the public health issue of adolescent pregnancy. Chester, Magnusson, Klemera, Spencer, and Brooks (2019) applied the social ecological perspective when investigating the effects of environment on the adolescent population. The researchers investigated community and environmental health assets that assist adolescents in healthy environmental behaviors (Chester et al., 2019). This literature presented on the social ecological model supports using it for this research.

Figure 1 illustrates the application of the social ecological model as a theoretical framework for this research. The model demonstrates how the adolescent remains at the center with influencing multilayered factors that contribute to the potential for receiving adolescent friendly health services and how this may relate to adolescent pregnancy.

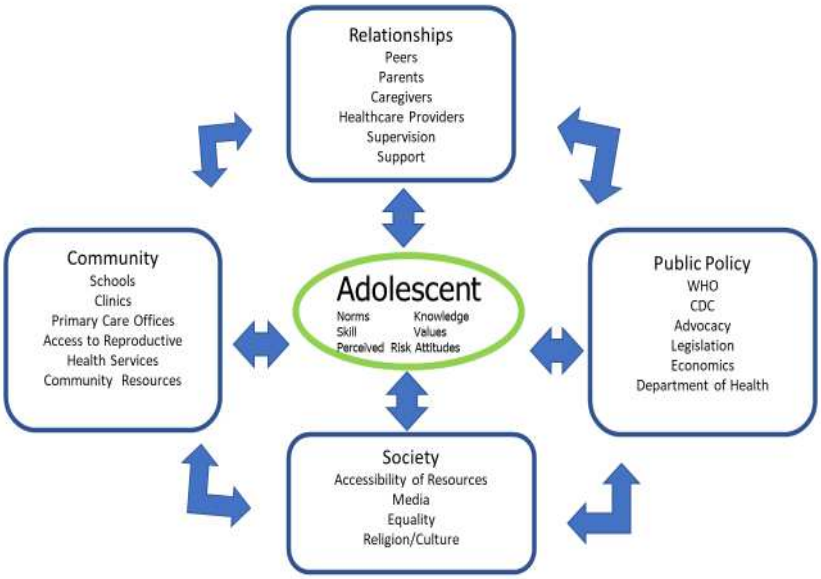

Figure 1. Adolescent friendly health services in relationship to adolescent pregnancy: A social ecological model. Adapted from "Health behavior: Theory, research, and practice" (5th ed.), by K. Glanz, B. K. Rimer, and K. Viswanath (Eds.). (2015). San Francisco, CA: Jossey-Bass.

Conceptual Foundation

The WHO (2012) has created a focus on adolescent health as adolescents make up an abundance of the population. The health of adolescents is essential for the health of future generations. The WHO has developed a plan to improve health outcomes, which includes the guidebook *Making Health Services Adolescent Friendly: Developing National Quality Standards for Adolescent Friendly Health Services* (WHO, 2012). This guidebook was developed out of a recommendation of the Global Consultation on Adolescent Friendly Health Services. The tool was created to promote understanding of the quality standards of adolescent friendly health services (WHO, 2020). The tool is

used in combination with the *Quality Assessment Guidebook: A Guide to Assessing Health Services for Adolescent Clients* (WHO, 2020).

The WHO standards for adolescent friendly health services were used by Huaynoc, Svanemyr, Chandra-Mouli, and Moreno Lopez (2015) in their research that focused on the scaling up of adolescent friendly health services in Colombia. Other research on assessing the evaluation of adolescent friendly health services was conducted in India and Moldova (Carai et al., 2015; Hoopes et al., 2016). These researchers employed a mixed methods approach to examine the ways adolescent friendly health services were being implemented based on the WHO standards. This research was valuable and applicable as it provided evidence-based research regarding the WHO's domains as a framework for research.

The rationale for focusing on the WHO standards as a conceptual framework is to provide a basis for understanding the quality measures in place to assess adolescent friendly health services from the primary care perspective. This framework is essential to form research questions regarding the quality of health services provided to adolescents. The framework provides specific details that align with the standards set by the WHO. Chester et al. (2019) supported the conducting of research with consideration for the WHO standards as the researchers participated in a study involving the health and wellness of children and adolescents. Understanding the role of the WHO standards as a conceptual framework for providing quality health initiatives was essential to this research.

Overview of Adolescent Pregnancy

The recent literature reveals many different areas related to adolescent pregnancy with few sources found that discuss adolescent friendly health services. Most of the literature found focused on either adolescent pregnancy or adolescent friendly health services with limited research involving both topics. I found both quantitative and qualitative research both subjects along with mixed method approaches. The limited research on the topic of adolescent friendly health services in relationship to adolescent pregnancy is a weakness as the relationship has yet to be established by other researchers.

The literature focused on accessibility to reproductive health services and accessibility to contraception as a means for preventing adolescent pregnancy. Other significant literature focused on the scaling up of adolescent friendly health services in other countries, but I found limited literature that addressed adolescent friendly health services in relationship to adolescent pregnancy in the United States. Below is a detailed description of the concepts identified after the literature review with the theoretical and conceptual framework in mind.

Adolescent pregnancy continues to be a public health issue that affects the health and well-being of adolescent girls. Internationally, the WHO (2020) suggested that although the adolescent pregnancy rate is on the decline, there is a projected increase in the number of pregnancies based on increased growth in the adolescent population. The WHO provides statistics that show that adolescent pregnancy remains a public health issue with approximately 21 million adolescents between the ages of 15 to 19 years worldwide becoming pregnant each year (WHO, 2020). Many differences have been

noted between countries, with the adolescent pregnancy rate in the Unites States remaining one of the highest despite recent declines. Adolescent pregnancy remains a high priority with many established goals and objectives for both the WHO (2020) and the (2019). The public health issue of adolescent pregnancy has a major effect on the morbidity and mortality of both mother and infant. The increased risk associated with adolescent pregnancy is one critical factor that makes this research significant (WHO, 2015). The literature review addressed the public health issue of adolescent pregnancy at the national and local levels. Current literature discusses many different aspects of adolescent pregnancy including the environmental influences and the evidence of inequality that exists (Solivan, Wallace, Kaplan, & Harville, 2015). According to Diaz and Fiel (2016) adolescent pregnancy contributes to poor long-term physical, social, and emotional outcomes for mother and baby. This literature review addressed the many contributing factors and social determinants of health that influence adolescent pregnancy. Focusing on the social determinants of health for adolescents at risk may be influential in creating interventions for health promotion (Danawi, Bryant, & Hasbini, 2016). It is important to understand the connection between adolescent friendly health services and adolescent pregnancy to explore the relationship that may exist. Focusing on the social determinants of health for adolescents at risk will be influential in creating interventions for health promotion (Danawi et al., 2016). For a better understanding of the scope of the issue it is essential to understand the specific details of adolescent pregnancy in the United States.

Adolescent Pregnancy in the United States

Although there may be many contributing factors that lead to adolescent pregnancy worldwide, for the purpose of this research it was important to understand the dynamics of adolescent pregnancy in the United States. The rate of teenage pregnancy in the United States is 18.8 per 1,000 births to adolescents between the ages of 15 to 19 years (CDC, 2019). This is high in comparison to the rest of the world with the lowest rate of adolescent pregnancy being North Korea at 0.5608 per 1,000 births. Although there have been declines in adolescent pregnancy rates over recent years in the United States there is still a major concern based on the incidence of adolescent pregnancy in minority populations (Burrus, 2018; Cherry & Dillion, 2014; Jozkowski & Crawford, 2016).

Cherry and Dillion (2014) provided detail of the history and cultural influences which shape our thinking of adolescent pregnancy in the United States as opposed to other countries. The authors cautioned us to be open minded and not be prejudiced to potential misconceptions about adolescent pregnancy. Historically adolescent pregnancy has been represented in two opposing views based on more recent exposure of the adolescent pregnant population. The increase in social media along with reality television has led to changes in perception of adolescent pregnancy (Cherry & Dillion, 2014). The authors made the argument that Americans may show a prejudice to those adolescents who are considered a minority while glorifying those who are featured on reality television (Price et al., 2014). This information was valuable to this research as it provided a basis for understanding potential perceptions that influence those discussing

this topic. As the researcher it was necessary to remain reflexive in the research to minimize potential bias.

As discussed above in the overview of adolescent pregnancy, the United States has one of the highest rates of adolescent pregnancy. The adolescent pregnancy rates among minority populations in the United States have increased (CDC, 2019). This inequality that exists continues to be a cycle that contributes to poor health outcomes and poverty among minority populations (Cherry & Dillion, 2014). Understanding the national and local rates of adolescent pregnancy helps to determine specific strategies for potential prevention. Although understanding the context of adolescent pregnancy in the United States is necessary, it was the context of adolescent pregnancy within New York State that applied to this dissertation.

Adolescent Pregnancy in New York State

Understanding the public health issue of adolescent pregnancy in New York State provides insight to the depth of the issue. The NYSDOH discusses sexual health as "a state of well-being in relation to sexuality across the life span that involves physical, emotional, mental, social, and spiritual dimensions" (NYSDOH, 2019). Although from 2007-2010 the United States had an overall decline of adolescent pregnancies by 17%, with significant changes in other states, New York State did not see any significant decline (NYSDOH, 2019). According to Healthy New York (2014) the rate of teenage pregnancy in New York State is 37.1 per 1,000 births, with Schenectady County having increased rates of 52.2 per 1,000 births. Schenectady County is in upstate New York,

approximately 200 miles north of New York City. Significant inequality is found in the non-white, Latino, and African American population (NYSDOH, 2019).

New York State has set significant goals to address this issue including the Youth Sexual Health Plan Goals. These goals include but not are limited to incorporating care that is evidenced based and accurate, reducing the rates of sexually transmitted diseases, providing reproductive education, and making contraception accessible (NYSDOH, 2019). The NYSDOH is committed to making reproductive health services available to all youth with a focus on prevention of sexually transmitted diseases and unintended adolescent pregnancies (NYSDOH, 2019). Researchers O'Uhuru, Santiago, Murray, Travers, and Bedell (2017) supported this initiative and worked to meet these goals as they focused on connecting adolescents to quality sexual and reproductive health in the Bronx. Mueller et al. (2017) addressed the multifactorial process of gaining support from the community to initiate evidenced based interventions for adolescent pregnancy prevention. Although the authors noted the utilization of the Teenage Prevention Program that was initiated by the Centers for Disease Control in 2010 by the Office of Adolescent Health, the study did not discuss the initiative set forward by the WHO (Mueller et al., 2017). Travers, O'Uhuru, Mueller, and Bedell (2019) continued this research as they focused on the process of implementing adolescent sexual and reproductive health clinical best practices in the Bronx in New York.

In the 2019 NYSDOH Prevention Agenda 2019-2024, which includes the Promote Healthy Women, Infants, and Children Action Plan, there is no mention of goals that address reproductive health services for adolescents. The goals focus on the

following major areas of Maternal and Women's Health, Perinatal and Infant Health, and Child and Adolescent Health (including children with special health care needs [CSHCN]) (NYSDOH, 2019). Under the Child and Adolescent Health focus area the three major goals include the supporting of children and adolescents' social-emotional development and relationships, increasing supports for children and youth with special health care needs, and reducing dental caries among children (NYSDOH, 2019). This is evidence that although the WHO has set out goals for improving adolescent health, New York State has not made this a priority. Although there are not specific goals for adolescent pregnancy, we do see some overall goals that can influence adolescents' health services (NYSDOH, 2019). These goals are to increase the use of primary and preventive health care services among women of all ages, with special focus on women of reproductive age (NYSDOH, 2019). This information is significant as there is limited evidence of New York State setting goals to address adolescent pregnancy. Although there are goals and objectives set for reducing maternal and infant mortality, there are no specific objectives that address the issue that increases maternal and infant mortality – the issue of adolescent pregnancy.

However, some initiatives have been created in New York State to improve the health outcomes for the adolescent population. One initiative that is notable is ACT for Youth (ACT for Youth, 2019). This organization is influential in connecting youth development research to practice in New York State. Although the program has many different areas of focus one area is to improve the quality of health care for adolescents through training of health care professionals (ACT for Youth, 2019). One important

reference that ACT for Youth shares in the training of health professionals is a guide that includes key points for adolescent sexual health. Primary care providers are encouraged to use this guide to meet the reproductive health needs of the adolescent. One guideline that is influential in making health care accessible regarding adolescent sexual reproductive health is that all adolescents have the right to access contraceptive and family planning care without parental involvement (ACT for Youth, 2019). Other information and resources provided by the ACT for Youth Initiative were standards set by the NYSDOH which provided best practice guidelines for sexual and reproductive health. These guidelines include information on contraceptive care and prevention screenings (ACT for Youth, 2019).

World Health Organization

The WHO has created the Global Strategy (2016-2030) which includes goals for improving and attaining quality of health for all women, children, and adolescents (WHO, 2015). Initially the WHO created an initiative that included Every Women Every Child in 2010 which focused on redefining the future of health for women, children, and adolescents where they have opportunities for optimal health and wellness. This is also included as one of the health-related Millennium Development Goals which is also included in the UN Sustainable Development Goals (WHO, 2015).

As discussed above the WHO has created tools to assist policymakers and public health professionals in developed and developing countries in the implementation of adolescent friendly health services. I have used these tools as a conceptual framework for this research. The tools included the guidebooks *Making Health Services Adolescent*

Friendly: Developing National Quality Standards for Adolescent Friendly Health Services and *Quality Assessment Guidebook: A Guide to Assessing Health Services for Adolescent Clients* (WHO, 2020). Carai et al. (2015) supported the idea for a universal approach to improving adolescent reproductive health through collaborative efforts that include adolescents, and governing bodies that can promote change through creation of policy.

The promotion of change was to incorporate the tools listed above to ensure adolescent health services are considered adolescent friendly; these include services that are equitable, accessible, acceptable, appropriate, and effective (WHO, 2020). According to the WHO in 2020 the definition of this includes that there are policies and procedures that allow for the adolescent population to receive care that is free or affordable according to their income. The services should be accessible based on the location and hours of service to meet the needs of the adolescent population who attends school. Accessible health services that are adolescent friendly should also include information on the variety of health services available to the adolescent including reproductive health services. Accessibility is also influenced by community individuals who will promote the importance of accessing health services (WHO, 2020). Community knowledge of adolescent services improves accessibility by the adolescent population during the day. Young people are well informed about the range of health services available and how to obtain them (Tylee, Haller, Graham, Churchill, & Sanci, 2007).

Sexual Health

The NYSDOH (2019) defines sexual health as "a state of well-being in relation to sexuality across the life span that involves physical, emotional, mental, social, and spiritual dimensions." Within the context of advocating for access to reproductive health services NYSDOH (2019) stated that it is essential that all individuals have the right to reproductive health services that are "based on a positive, equitable, and respectful approach to sexuality, relationships, and reproduction that is free of coercion, fear, discrimination, stigma, shame, and violence." Although the NYSDOH addresses some of the qualities of adolescent friendly health services, the use of the recommendations of the WHO are not considered in the language presented on their website and in the current literature identified. The NYSDOH (2019) approaches the topic of sexual health in a socioeconomic and cultural context, where individuals have the right to obtain sexual health services that focus on prevention and optimal well-being with improvement of health outcomes for all. Although there can be mixed political views on the right to reproductive services for the adolescent population, it is essential to understand that developmentally adolescents require health services that focus on their sexual well-being (NYSDOH, 2019). Resources found within the NYSDOH Prevention Agenda included an American College of Obstetricians and Gynecologists (ACOG) Committee Opinion on Well-Woman Visit; this opinion recommended the use of the AAP's Bright Futures guidelines to provide developmentally appropriate care for females between 11-21 years of age (NYSDOH, 2019).

Adolescent Friendly Health Services

I conducted research on the topic of adolescent friendly health services but found minimal literature. I found research specific to other countries such as Moldova, India, and Colombia. Carai et al. (2015) focused on the assessment of adolescent friendly health services and the implementation of health services in Moldova. This research provided questions that led to the inquiry of adolescent friendly health services including the use of the WHO standards; this supports the use of the conceptual framework (Carai et al., 2015; Chandra-Mouli et al., 2013). The researchers provided valuable points which discussed the importance of the influence of environment where adolescent health services are conducted; this also supports the use of the social ecological model as a theoretical framework. The researchers created a framework which was used in the qualitative research to determine the utilization or scaling up of adolescent friendly health services (Carai et al., 2015; Chandra-Mouli et al., 2013; Nguyen et al., 2019). The framework included the following concepts: input, process, output, outcomes, impact, and cost. This literature is valuable as it provides a framework for investigating primary care providers' perceptions of adolescent friendly health services in relationship to adolescent pregnancy. In 2015, Huaynoca, Svanemyr, Chandra-Mouli and Moreno Lopez developed research that focused on the factors that facilitated or hindered the implementation of adolescent friendly health services in Colombia. The researchers discussed the importance of having a clear process that includes development of policies and procedures for implementation of adolescent friendly health services (Huaynoca et al., 2015). In 2016 Hoopes et al. used this framework again to evaluate the adolescent

health services in India. The researchers focused on the literature that existed on the evaluation of adolescent friendly health services. The researchers suggested the need for a standardized format for evaluating adolescent friendly health services. The researchers concluded that there was a lack of consistency when evaluating adolescent friendly health services (Hoopes et al., 2016).

Brittain et al. (2018) conducted a literature review to examine the effects of youth-friendly family planning on reproductive health outcomes and concluded that there was a continued need for research in this area. The researchers found that the literature identified the important aspects to reproductive health services in the adolescent population which included an appreciation for relationship development with the provider, confidentiality, and having access to contraception (Brittain et al., 2018). This research was consistent with the WHO's recommendations for ensuring adolescent friendly health services that are equitable, accessible, acceptable, appropriate, and effective (WHO, 2018). The researchers concluded that these recommendations should be considered when implementing and evaluating reproductive health services for young people (Brittain et al., 2018).

Primary Care

> The American Academy of Family Physicians defines primary care as follows: Primary care is that care provided by physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern (the "undifferentiated" patient) not

> limited by problem origin (biological, behavioral, or social), organ system, or diagnosis. (American Academy of Family Physicians, 2019)

Primary care can be provided in many different settings such as a family practice, pediatric practice, or a clinic setting. Tanner, Secor-Turner, Garwick, Sieving and Rush (2012) found that primary care providers missed prime opportunities to assess risk factors regarding reproductive health in the adolescent population. The researchers concluded this was due to many of the social and political barriers related to discussing reproductive health with the adolescent population. This research further supports the lack of adequate health services provided to the adolescent population that meet the standards set by the WHO (Tanner et al., 2012). Riley, Patterson, Lane, Won, & Ranalli (2018) investigated the importance of primary care serving the adolescent population to meet their developmental needs. The researchers focused on nine different primary care pediatric settings. The settings included pediatric primary care offices, family practice, and medical pediatric offices. The researchers focused on a model for training staff and health care providers on becoming "more adolescent centered." This was done through a quality improvement initiative called "The Adolescent Champion Model." This model was developed through The University of Michigan Health System (UMHS) Adolescent Health Initiative (Riley et al., 2018). The terms in this research included "adolescent centered environment" but the researchers stated this was taken directly from the WHO's definition of Adolescent Friendly Health Services. Riley et al.'s 2018 investigation supports the use of the WHO as a theoretical framework for this research.

Telehealth

In the process of conducting the proposal for this research an unprecedented pandemic, the coronavirus or COVID 19, surfaced as a challenge for primary care providers. During this time primary care providers needed to move to unconventional ways of evaluating and treating patients while maintaining social distancing to minimize the spread of this disease. Primary care providers moved to a system of using telehealth to care for patients who needed health care services. Smith et al. (2020) discussed the importance of having plans in place for utilizing telehealth as a mode of delivering care that minimizes the risks of spread of the coronavirus. The researchers focused on the importance of incorporating a plan that includes mixing traditional care with telehealth. The goal would be to implement telehealth as a proactive measure to improve overall health outcomes and minimize exposure to the coronavirus. Training and management of a new model of care is essential for the success of telehealth in the primary care setting (Smith et al., 2020). These researchers were quick to focus on telehealth during the pandemic, but it was important to focus on preexisting literature regarding telehealth.

Although the research may be minimal regarding the effects of the coronavirus on the primary care providers' ability to provide health services it was important to review the literature regarding telehealth and the adolescent population. As early as 2005 researchers were exploring the options of telehealth. Researchers Grealish, Hunter, Glaze, and Potter (2005) found that providers needed to meet the demands of the children and adolescents regarding mental health. They found that moving services to a different platform allowed them to be more accessible to the needs of this population. Accessibility

is one of the domains the WHO strives for to make adolescent health services more friendly (WHO, 2020). This research is valuable as it promotes the use of telehealth to be more accessible to the adolescent population. The researchers in the above study discussed that although satisfaction was found from the patients' perspective the primary care providers were hesitant to integrate this practice. Researchers Laptev and Peterkova (2018) implemented telehealth to meet the needs of patients who were diagnosed with type 1 diabetes. The researchers found that children who had trouble maintaining normal glucose control had significant improvement in glucose levels after having access to health services via telehealth. The researchers discussed the importance of having telehealth services accessible (Laptev & Peterkova, 2018). Guljas, Ahmed, Chang, and Whitlock (2014) also focused on the use of telehealth when caring for children and adolescents with type 1 diabetes. Their research supported the use of telehealth to help pediatric patients including adolescents with diabetes management. The researchers found that in cases where patients may not be able to have access to follow-up visits or may be at risk for being noncompliant telehealth provided a bridge to the services needed (Guljas, Ahmed, Chang, & Whitlock, 2014). Schiel et al. (2008) also found positive results with the use of telehealth when researching children with obesity. By incorporating telehealth into the plan of care the children were more likely to be compliant with weight loss and exercise management (Schiel et al., 2008). Telehealth was used as far back as 2001 when researchers Kopel, Nunn, and Dossetor (2001) reported using telehealth for mental health services in rural areas where accessibility was a barrier to these services. The researchers reported high satisfaction using telehealth for

mental health services. Telehealth was also used in the case of child sexual abuse. Stavas et al. (2018) focused on the perceptions of caregivers and adolescents in the case of child sexual abuse examination. The researchers determined this method was used to improve accessibility to these services (Stavas et al., 2018).

The literature review provided explains the important benefits of telehealth prior to the COVID 19 pandemic and evidence of the importance of creating a plan for upscaling the use of telehealth during the pandemic. This literature review is important to this research to build a foundation of telehealth as an evidenced based practice that should be further investigated when caring for the adolescent population. The literature review also provided insight to the importance of using the conceptual framework of the WHO's domains and how accessibility is a major factor when providing primary care services. With the current changes in the way primary care providers are providing services, interview questions have been developed to reflect current practices and to assess the primary care providers' perspectives regarding telehealth.

Bright Futures

It is important to understand the resources available to primary care providers. On the national level Bright Futures is a health promotion initiative (Bright Futures, 2020). Bright Futures is recommended by the AAP and is supported by the Maternal and Child Health Bureau and the Health Resources and Services Administration (Porter et al., 1987). Bright Futures, which is theory and evidenced based, is used by primary care providers to address important concepts in care such as health promotion, anticipatory guidance, disease prevention, and early detection of disease (Bright Futures, 2020). The

overall goal of this initiative is to improve the health outcomes for the pediatric population up to and including late adolescents. There are many guidelines and tools that can be used by primary care providers that consider the pediatric patient in a holistic way (Bright Futures, 2020). In reviewing the AAP recommendations for Bright Futures, I realized there are limited tools for primary care providers on the screenings for reproductive health. The Bright Futures form "Integrating Adolescent Health Screening into Health Supervision Visits" does not recommend screening for pregnancy or need for contraceptive care but does suggest screening for sexually transmitted infections (Bright Futures, 2020). This is an important concept, because the role of the primary care provider is to focus on anticipatory guidance and prevention strategies to minimize adolescent pregnancy (Bright Futures 2020).

According to Lee (2017), AAP recommended the use of Bright Futures as a tool for assessment and discussed in detail the application of this tool for the adolescent population. Bright Futures recommended that preventive primary care visits should consist of approximately 17-20 minutes that are focused on health promotion and prevention of potential risk factors (Lee, 2017). One assessment tool that was created by Goldenring and Cohen focuses on specific areas in the adolescent's life including home, education, activities, drugs, sex, and suicidality. A mnemonic was created for primary care providers which is referred to as the HEADSS assessment (Hagel, Mainieri, Zeni, & Wagner, 2009). Additional assessments have been added which include eating and safety. Although this assessment tool was recommended as a basis for identifying risk areas for adolescents, Lee (2017) found that adolescents identified feeling most comfortable with

discussing anxiety and vaccines. Barriers in communication were found based on the needs of the adolescent and a lack of trust regarding confidentiality and an established rapport. This literature presented is valuable in exploring the many variables to ensuring adolescent health services are adolescent friendly (Lee, 2017). Although the AAP recommendations can be followed, there is a greater need for addressing adolescents' concerns in a way that meets the criteria for being adolescent friendly (WHO, 2020). Further research on the primary care providers' perspective on the qualities of adolescent friendly health services may improve their abilities to follow the guidelines with a focus on the individual need of the adolescent.

Social Determinants of Health

Many factors need to be considered when discussing adolescent pregnancy. An organizing framework was developed by Healthy People 2020 to investigate the social determinants of health. According to the CDC (2019) these factors thought to influence a person's health are biological, socioeconomic, psychosocial, behavioral, or social in nature. The major determinant that needed to be considered for this research was the socioeconomic determinant. This was essential due to social influences that exist and play a role in adolescent pregnancy as well as the environmental influences that exist due to potential for limited access to health services (Glanz et al., 2015).

To fully understand the public health issue of adolescent pregnancy it is essential to understand the factors that influence adolescent pregnancy. According to Chung et al. (2018) who investigated the economic influences of adolescent pregnancy, there are significant contributing factors that include a lack of reproductive health services as well

as social considerations such as social influences and family considerations. According to Cherry and Dillion (2014) biologically adolescents require health services that meet their reproductive needs based on their physical development and maturation into puberty. The authors further stated that the health services should be aligned with the physical and emotional development of the adolescent. This research supports the importance of providing adolescent friendly health services to minimize the risk of adolescent pregnancy early in the adolescent years (Cherry & Dillion, 2015). Price et al. (2014) and Jiskrova and Vazsonyi (2019) discussed the environmental influences of adolescent pregnancy as well and considered an ecological perspective, taking into consideration that some adolescents may be at a disadvantaged increased risk based on ecological factors. Including this concept in this research supports the importance of providing an environment that may meet the needs of those most at risk (Jiskrova & Vazsonyi, 2019; Cherry & Dillion, 2014). Investigating the quality of health services available to those who are at an ecological disadvantage based on physical, social, and economic status may bring to light the depth of the issue and promote social change for those most at risk.

Another factor that may influence an adolescent's risk of pregnancy includes religious considerations. Kappe (2016) researched the effects of religious environments on adolescent pregnancy rates in the United States. Religion plays an important part in the education and services that are provided to adolescents. A religious school environment can limit the access to sex education and contraceptives (Kappe, 2016). Recognizing the social determinants of health that influence the adolescent population and their reproductive needs may assist in adolescent pregnancy prevention.

Adolescent Pregnancy Prevention

Although the focus of this dissertation is on gaining a better insight into adolescent friendly health services in the primary care setting, it was important to consider how this may affect the prevention of adolescent pregnancy. When planning interventions for adolescent pregnancy prevention it is essential to address many important concepts. According to Espada, Morales, Guillen-Riquelme, Ballester, and Orgiles (2016), and Kok, Bartholomew, Parcel, Gottlieb, and Fernandez (2011) interventions must reflect considerations such as age, gender, culture, and socioeconomic status. Chester et al. (2019) conducted research that investigated identifying environments where adolescents are most influenced. It was found that adolescents reported to be mostly influenced by family, school, their communities, and neighborhoods (Chester et al., 2019). Creating interventions based on the assessment of needs within the community and the application of theory ensures they are appropriate (Glanz et al., 2015). Hutchinson and Wood (2007) provided research that focused on the importance of including parents in an educational experience to promote adolescent health and minimize risky sexual behaviors leading to potential adolescent pregnancy. Rai, Anand, Misra, Kant, and Upadhyay (2012) found that planning interventions must include the consideration of social determinants of health to decrease the neonatal, maternal, and mortality rates for the adolescent minority population. Tschann, Salcedo, Soon, Elia, and Kaneshiro (2017) stated the need for interventions to be based on the understanding of social norms and attitudes regarding reproductive health including sexually transmitted diseases, and pregnancy prevention.

One approach to minimizing the risk of adolescent pregnancy is a community approach. There is a significant amount of research that focuses on incorporating the community when creating programs and strategies for adolescent pregnancy prevention (Workman, Flynn, Kenison, & Prince, 2015). Brown et al. (2017) investigated the application of health programming in the community setting and found there was increased effectiveness when communicating preconception needs in the adolescent population. Popular areas for community outreach regarding sexual health were local churches, youth centers, and schools. Brown et al. (2017), Workman et al. (2015), and Daley and Polifroni (2018) supported community outreach as a valuable way to access adolescents in their natural setting to provide pregnancy prevention strategies. Workman et al. (2015) and Daley and Polifroni (2018) researched school-based approaches to address the public health issue of adolescent pregnancy. According to Workman et al. (2015) the use of a curriculum for pregnancy prevention in the school setting is ideal for meeting the desired outcomes for adolescents at risk. Workman et al. (2015) supported the use of evidenced based curriculums for pregnancy prevention in the school setting. Fertman and Allensworth (2017) discussed the use of the School Health Index which is a self-assessment and planning tool developed by the CDC. The use of this tool can help to identify strengths and weaknesses in the school related to major topics. Daley and Polifroni (2018) also supported the use of research to explore the lived experience of nurse practitioners who provide reproductive health services to adolescents in school-based clinics. This current literature is relevant to this research to provide a better understanding of other potential resources adolescents may have to prevent adolescent

pregnancy. Having a broad understanding of the resources available to the adolescent in need of reproductive services provides insight into the barriers and challenges that exist when obtaining services in the primary care setting.

Fertman and Allensworth (2017) discussed the importance of a collaborative team that would meet the needs of the community outreach health program. Collaboration would include working through the details with the members of the school team to ensure the message was exciting and developmentally appropriate for the age group (Fertman & Allensworth, 2017). The team would include parents, school nurses, teachers, counselors, coaches, and peer counselors (Johnson-Motoyama et al., 2016; Ng et al., 2017).

Other potential resources adolescents may use for minimizing the risk of adolescent pregnancy are their peers. Fetta, Harper, Knight, and Williams (2018) investigated the role of peer relationships and found that peer relationships hold power for adolescents when making decisions about their health. Boustani, Frazier, Hartley, Meinzer, and Hedemann (2015) provided evidenced based research that promotes programs that improve the knowledge and attitudes of adolescents.

The research above suggests the collaboration of many different community interventions to meet the reproductive needs of the adolescent population. The use of this research is valuable to ensure an understanding of a variety of interventions to promote adolescent reproductive health (Fertman & Allensworth, 2017). When many different community agencies work together to address reproductive health it brings the public health issue to the forefront and encourages the community to work to meet the reproductive needs of adolescents and improve health outcomes.

Summary

After a review of the literature I found that the WHO created a set of standards to improve health outcomes for the adolescent population. These standards included providing adolescent friendly health services in many different settings. The research I reviewed provided insight that included the scaling up of these standards in other countries, but there is limited literature regarding adolescent friendly health services in the United States or in New York State. Adolescent pregnancy continues to be a public health issue among minority populations causing disparity and inequality. Barriers persist for adolescents in receiving primary care that is adolescent friendly.

Chapter 3: Research Method

Introduction

The purpose of this research was to gain insight into the perceptions of primary care providers regarding adolescent friendly health services and the relationship to adolescent pregnancy. This research adds to the body of knowledge regarding adolescent friendly health services as well as fills the gap that exists in literature on this topic. The overall goal of this research was to gain an understanding of primary care providers' perceptions of adolescent friendly health services and how it relates to adolescent pregnancy. Chapter 3 includes a detailed description of the research design and provides a rationale. The role of the researcher is discussed along with a description of the methodology. In all research the researcher must be aware of issues with trustworthiness, therefore trustworthiness is also discussed.

Research Design and Rationale

RQ1: What familiarity do primary care providers have with the WHO's domains for adolescent friendly health services?

RQ2: What adolescent friendly health services are provided in the primary care setting to address adolescent pregnancy?

RQ3: How do adolescent friendly health services in the primary care setting influence adolescent pregnancy?

I used a descriptive phenomenological qualitative approach to gain insight into the perceptions of primary care providers regarding adolescent friendly health services and how it relates to adolescent pregnancy. Using a descriptive phenomenological

qualitative research method focuses on the in-depth lived experience through the participants' perceptions (Patton, 2015). I focused this research on the in-depth examination of the perceptions of primary care providers regarding adolescent friendly health services and how these perceptions relate to the public health issue of adolescent pregnancy. Daley and Polifroni (2018) supported this method in their research conducted regarding the use of the lived experiences of nurse practitioners providing contraceptive care to teens in school-based health clinics. The qualitative methods allow for face-to-face interviews with primary care providers which includes doctors, nurse practitioners, and physician assistants. The objectives of the face-to-face interviews includes gaining insight into adolescent friendly health services in relationship to adolescent pregnancy. Vagle (2018) concluded that a phenomenological approach is extremely valuable in exploring the lived experience health related topics. The reason for including face-to-face interviews is to provide insight and provide a rich discussion of the perceptions of the primary care providers. Examining the role of the researcher in a phenomenological qualitative study is essential to produce valuable valid research (Patton, 2015).

Role of the Researcher

As the researcher, my role included being the observer and a participant in the research. I applied a phenomenological descriptive qualitative approach using interviews to gain the information needed for the research. I shared a professional interest with the participants as they are my peers in the health care setting. The participants were identified through mutual peer relationships and referred by other primary care providers.

The participants are at an equal or higher professional level. I was not a supervisor or in an instructor role with the participants.

There may be a possibility of bias regarding the subject of adolescent friendly health services regarding adolescent pregnancy. The first potential bias is the experience of having an adolescent child that I seek health care for. During routine health care experiences, I have found that there was a lack of adolescent friendly health services in the primary care setting. To ensure the limiting of bias, I remained transparent and open in all situations that arise.

There were no other ethical issues that are anticipated as the research was not conducted at my place of employment or with those over whom I have influence. There was no conflict of interest as the participants are those who show an interest in participating based on their desire to improve health outcomes for the adolescent population. There was no use of incentives as it was anticipated that primary care providers who participate would be interested in improving the quality of health services provided to the adolescent population.

Methodology

The participants included primary care health providers who care for the adolescent population, including doctors, nurse practitioners, and physician assistants. This purposeful sampling included primary care providers who provide health services to the adolescent population in New York State. The rationale for this sample includes accessibility to primary health care providers based on geographic location and for the basis of filling the gap in literature.

The criteria for participation in this research included that the primary care provider provides health services on a part- or full-time basis to the adolescent population in a primary care setting including a clinic, family practice, or pediatric office. The participation criteria included the primary care provider having at least 1-year experience in their current role.

The goal for this research was to include six to12 participants until saturation was met with a total of ten participants. Vagle (2018) discussed the goal of phenomenological research to provide quality experiences of a small number of participants as opposed to gaining quantity in participants. The best way to determine an appropriate number of participants is to determine how many quality interviews are needed to support "making the case" (Vagle, 2018). A total of ten participants was needed to make the case for this research.

The plan for contacting the participants included networking with already known primary care providers in three main areas of the state including western New York, central New York, and upstate New York. The initial recruitment included a formal letter seeking interest in the research with inquiries about other potential participants. After interest was established and participants were identified, I made further contact with participants based on recommendations. Once all participants were identified a formal letter of interest was established with a verbal agreement. Informal networking was established to determine feasibility of the research.

The data collection process included in-depth interviewing to gain insight to the lived experiences of the primary care providers and their perceptions of adolescent

friendly health services and how it relates to adolescent pregnancy. Patton (2015) stated that a challenge of this approach is to remain reflective as the researcher and to limit bias regarding the topic. Reflectivity is essential when using a phenomenological approach to research (Vagle, 2018). The use a phenomenological qualitative approach provided insight into the perceptions of primary care providers on adolescent friendly health services in relationship to adolescent pregnancy.

Published Data Collection Instrument

A semistructured interview guide was created with the use of a validated research instrument, YFHS-WHO+ Questionnaire: Validation of a Measure of Youth-Friendly Primary Care Services, created by Haller and colleagues (Haller et al., 2012). The tool was created based on the recommendations set forth by the WHO regarding youth-friendly health services in the primary care setting. The questionnaire focused on representing the domains of youth-friendly health services. The research tool was validated in several ways including face and content validation, translation and back translation, and the use of pretesting the questions (Haller et al., 2012). Using this validated research tool as a guide, I created a questionnaire conduct qualitative phenomenological research. Permission was given to use the tool for this research with adaptations. See Appendix A for the confirming email with permission.

Researcher-Developed Instruments

To investigate the phenomena of the relationship between adolescent friendly health services and adolescent pregnancy a qualitative questionnaire was created. I made adaptions that focused on the major headings with an open-ended question using the

domains set forth by the WHO (WHO, 2020). I used the theorical framework and conceptual framework as a foundation for adaptation of the questions to ensure alignment. The social ecological model as well as the WHO's domains of adolescent friendly health services helped to adapt each question to formulate a phenomenological qualitative approach (Glanz et al., 2015). The existing headings in the original validated instrument included access, parental support, community support, equality, respect, privacy, quality, and appropriateness. The original research instrument also focused on the providing of a scenario for the participant to discuss and this remains in the adapted version (Haller et al., 2012). Lastly to gain understanding of the significant differences between the two tools was the leading specific probing questions. The questions were adapted to gain information regarding the perceptions of the participants and to facilitate an opportunity to hear about the primary care providers' experiences of caring for adolescent female patients. A copy of the research instrument, which includes the approved interview guide, is in Appendix B.

Procedures for Recruitment Participation and Data Collection

The research questions were answered based on the creation of a questionnaire that included open-ended questions to facilitate responses that include the lived experiences of the primary care provider. The collection of data consisted of a onetime telephone interview at a mutually agreed-upon time based on location and participants' comfort, preference, and ability to maintain confidentiality. The interview was recorded using a recording device, then transcribed for data analysis. The data is stored in a locked cabinet in the home of the researcher to maintain confidentiality. I provided a brief

debrief and explanation of the research process to each participant, with an offer to disseminate the research once it is completed. The participants can contact the researcher for further questions or for termination of participation within a reasonable time prior to submission of the research.

Coding is an essential process that helps the researcher to begin to understand the results of the research. This process is crucial in the overall research. The coding process must be conducted within the alignment of the research to gain a full understanding of the perceptions of the participants (Saldana, 2016). In this research the best method for coding includes an ontological approach (Patton, 2015). The research questions are focused on the perceptions of the participants along with action and process questions which can be considered epistemological (Patton, 2015). To keep in alignment with the epistemological approach coding was used to identify themes within the data (Saldana, 2016). Saldana (2016) also suggest conduct generic coding this includes reviewing the transcripts and pulling out information and key words. Vivo Coding, Process Coding, and Values Coding can also be used for the transcribed interview.

When determining the best method for coding, it is essential to understand the benefits of both approaches. The best method for this research based on the theoretical and conceptual framework is hand coding. The experience of hand coding is valuable and provides insight into the process. Ensuring reflexivity through means of journaling or reflecting on the relationship to the topic is needed for the researcher to remain transparent while analyzing the data.

Issues with Trustworthiness

Trustworthiness is essential when conducting research. Establishing internal and external validity is essential to ensure the research can be trusted and potentially used in furthering knowledge on the topic in future research (Saldana, 2016). Strategies were established for maintaining credibility including triangulation, ensuring saturation is met, reflexivity, and peer review.

As a public health professional, it is important to recognize the role of the researcher in conducting research. Considering potential bias or beliefs or attitudes about the subject is important prior starting the research. The same passions and desires to help a certain population can also create biases regarding the subject. There could have been a slight potential for bias being a parent of an adolescent female and a consumer of primary care services. Another potential for bias could have been the researcher's clinical experience in the primary care setting. The professional opportunities to practice in this area of study have sparked a deeper curiosity to investigate the phenomena of adolescent pregnancy.

Transferability was an important concept when conducting research. According to Ravitch and Carl (2016) transferability is the process in which research can be applied or generalized to other areas of study. To ensure transferability, the researcher must allow for detailed descriptions of the data. This is referred to by the author as a "thick description" and this allows other researchers to compare specific outcomes of the research and apply to other areas (Ravitch & Carl, 2016). The plan to ensure

transferability in this research included ensuring following of the conceptual and theoretical framework and providing detailed descriptions of the study design and results.

Ethical Procedures

There are no ethical concerns for accessing participants; participants were accessed in a professional and voluntary manner. The data collected from participants included in-depth telephone interview to maintain social distancing. Recruitment was done via a letter of interest to the participants. None of the participants are in a subordinate position but are all respected peers within the medical field to which the researcher has access. There were no situations where participants withdrew from the research; no further networking was be done to contact appropriate participants. All research was conducted under approval of the Institutional Review Board and following best practice and policy set by Walden University.

All data collected from participants remains confidential without exposure of the participants identity. Participants were identified using a number to maintain confidentiality. All data collected remains in the researcher's home in a password protected computer and will be destroyed after 5 years. Any written field notes remain in a locked cabinet and will be destroyed after 5 years.

Summary

In summary Chapter 3 has presented the research design and rationale, as well as the role of the researcher, methodology, issues with trustworthiness, and ethical procedures. Chapter 4 consists of the research process with a focus on the details of the data collection and analysis.

Chapter 4: Results

Introduction

The purpose of this qualitative study was to gain insight into the perceptions of primary care providers regarding adolescent friendly health services in relationship to adolescent pregnancy. I used a qualitative approach to assist in gaining an in-depth understanding of how adolescent friendly health services in the primary care setting influence adolescent pregnancy. The following research questions are used to address this research.

RQ:1 What familiarity do primary care providers have with the WHO's domains for adolescent friendly health services?

RQ2: What adolescent friendly health services are provided in the primary care setting to address adolescent pregnancy?

RQ3: How do adolescent friendly health services in the primary care setting influence adolescent pregnancy?

This chapter includes a discussion of the setting of the research, the demographics of participants, data collection procedures, data analysis, evidence of trustworthiness, the results, and lastly a conclusion.

Setting

During the time of the research there were factors that influenced the setting in which the research would take place. Although the ideal and desired setting would be a face-to-face interview with each participant, unfortunately the occurrence of the public health pandemic COVID 19 prevented this from happening. Due to the need to social

distance to minimize the spread of COVID 19, all research needed to be moved into a virtual environment. The setting that was most conducive for the participants at this time, and allowed for recording of the interview, was telephone interviews. All interviews were conducted over the telephone and recorded for further transcription. The setting of the interview included a space in a home office where I could have privacy and maintain confidentiality. Likewise, each participant also chose a space that maintained privacy and confidentiality.

Demographics

The demographics of the participants included primary care providers who care for adolescent patients in the primary care setting and who have been practicing for at least 1 year. The providers included medical doctors, pediatric nurse practitioners, family nurse practitioners, and physician assistants. The participants ranged in age from mid-30s to 60s. The participants came from a variety of ethnic backgrounds with the majority being Caucasian and included some representation from the African American and Asian ethnic community. Years of practice for the participants spanned from 1.5 years to 34 years, with most participants practicing for over 5 years. Many of the participants stated they had no specific training in adolescent care, but two participants stated that they sought out a fellowship opportunity to obtain additional training on adolescent care. The participants discussed that the training for the adolescent population was included in the pediatric portion of their training. All but one of the participants stated that they were not familiar with the WHO recommendations for adolescent friendly health services.

Data Collection

Data collection was started after gaining Institutional Review Board (IRB) approval with the following number 06-26-20-0650792. Data was collected from a total of 10 participants. Each participant was interviewed using the data collection tool approved by IRB. Interviews were conducted via telephone for an average length of 35 minutes per interview. Data was recorded via the Rev Voice Recorder app. Field notes were also created at the time of the interview. The only variation that occurred from the data collection process originally proposed for this research was the need to conduct interviews over the telephone rather than face-to-face as originally planned. All other data collection procedures were completed as proposed in Chapter 3. During data collection there were two interviews that were not recorded, but field notes were used to collect data.

Data Analysis

All interviews were transcribed into a Word document for further analysis of each interview to allow for identifying categories and themes. According to Vagle (2018) analysis of phenomenological research must be done based on the conceptual and theoretical framework. The process of analyzing the data must also be done in a way that focuses on the nature of the study. This descriptive phenomenological research requires a plan that includes the creation of text as opposed to just the creation of coding and categorizing, making assertions and reporting (Vagle, 2018). The data analysis process included a series of steps. These steps included first reading over the entire text that was transcribed as well as listening to the recorded interviews. This first step serves the

purpose of "getting acquainted with the phenomenological material" (Vagle, 2018, p. 110). The next step included my reviewing the field notes line by line seeking out key words or phrases that begin to stand out. I then identified and organized the data into a document that represented major key words and phrases. The transcript was then read again to allow myself to gain any further insight or identify missed key words or phrases that could be added to the document created for analysis. Lastly, the document was reviewed and key words and phrases which showed meaning were identified as themes. Subthemes also emerged as the data was analyzed, as I identified key words and phrases in relationship to the original themes. This process was completed as recommended by Vagle (2018) for conducting data analysis for descriptive phenomenological research, in which the goal is to not merely present data but to be able to present information in a way that tells a story.

The specific codes, categories, and themes that emerged from the data were based on the conceptual framework that included the WHO's domains of adolescent friendly health services. With the use of the approved questionnaire, data was gathered based on the domains of adolescent friendly health services. These domains and themes will be discussed in detail in the results section of this dissertation. There were no discrepancies found within the research.

Evidence of Trustworthiness

Credibility

According to Saldana (2016) credibility establishing internal and external validity is essential to ensure the research can be trusted and possibly used in furthering

knowledge on the topic in future research. To establish and maintain credibility in this research I used triangulation reflexivity and peer review. During the process of analyzing the data the themes were identified based on the information gathered as opposed to any influencing bias or preconceived views of the topic. Data analysis was conducted to represent the views of the participants to ensure credibility.

Transferability

To ensure transferability I applied the theoretical and conceptual framework when conducting the research. According to Ravitch and Carl (2016), research should be transferable which means it can be applied to or generalized in other areas of study. To ensure transferability I described the research process in depth so that it may be transferable to other areas of study. During the research process I asked detailed probing questions to gain a full understanding of the perceptions of the participants. This resulted in extensive responses that provided insight into each research question and were used for detailed coding and theming of data. This approach is useful for other researchers to transfer this research into another area of study.

Dependability

I conducted this research in a way to ensure dependability by providing details of the research to allow for potential replication of the study by another researcher. Dependability is important when ensuring validity of the research procedures. To ensure dependability I was sure to follow research procedure as outlined in the proposal and maintain all documents to support my research findings. This process ensured documentation of the process and preserved the evidence of the findings. I also ensured

dependability by journaling for reflexivity to minimize potential for bias. The application of a theoretical and conceptual framework and a reliable evidenced based research tool also added to the dependability of the research.

Confirmability

To ensure confirmability is to ensure that the participant's voice is being portrayed in the research as opposed to the researcher's voice (Ravitch & Carl, 2016). To ensure confirmability during the data collection process I was sure to ask follow-up questions to confirm the responses that the participant provided. During the research process after each interview I reviewed the field notes seeking out key terms and highlighting important points the participant made. Journaling was done to ensure a process of being free from bias. The journaling provided an opportunity to analyze the data without interfering thoughts. This experience was useful as a practice of reflexivity which included the ability to explore my own thoughts and beliefs about the topic and keep these separate from the research. According to Saldana (2016) reflexivity strengthens the research. Using these strategies was essential in ensuring trustworthiness of the research.

Results

Interviews were conducted based on the personal needs and preferences of the participants along with following the safety criteria for social distancing during the COVID 19 pandemic. After each interview was conducted the recordings were hand transcribed into a password protected computer in individual files marked with the number of the participant to maintain confidentiality. Data analysis was conducted based

on the theoretical and conceptual framework and in agreement with Vagle's (2018) findings. After data analysis was completed there were major themes identified based on the theoretical and conceptual framework. Each question on the interview guide aligned with the research question to address the adolescent health services provided by the primary care providers.

The results are organized by a brief description of each of the main components of the interview with a discussion of generalized responses. Following this description is a result of the data analysis with a focus on each of the emerging themes and subthemes in relationship to each research question.

Access

Following the conceptual framework, the results are discussed based on the WHO's domains of adolescent friendly health services. The first domain discussed included access to care. The participants responded to this interview question with a focus on the parental influences of accessing care in the primary care setting. The participants discussed the different aspects of care based on socioeconomic status, location, and transportation. The second part of the question in relationship to access also included telehealth. The participants discussed how telehealth was used as a means for follow-up visits when a physical assessment was not essential to the overall visit. The example provided by the participants included using telehealth for mental health visits.

Parental Support

For the next topic, parental support, the participants discussed parental support as being a major influence in where adolescents seek care. The participants discussed such

topics as the importance of having a relationship with the parent to ensure that they bring their children to the primary care office for primary health services. The participants discussed that the younger adolescents are influenced more greatly by the parents or caregivers, and the older adolescents may seek health services without the parent. All participants discussed how they provide time with the adolescent without the parent present for some part of the visit. The participants had different strategies for allowing alone time with the patient for further screening, but all participants did provide this time.

Community Support

When discussing community support, the participants focused on topics that included the community resources being influential in the adolescent seeking health care in the primary care setting. Social media, advertisement, transportation, and geographic location were also considered to be influential in the adolescent seeking health services in the primary care setting. Other topics discussed regarding community support included the influences of the school on adolescent health. Peer influences were also discussed under the topic of community support.

Equality

The participants discussed equality in a way that focused on the adolescents' ability to equally access health services. One participant made a point that equity is more important than equality. This point is valuable feedback as it may be insightful to adjust the questionnaire for future research to provide a clearer representation of the importance of equity as opposed to equality. When discussing equality, the participants raised many

important concepts such as, socioeconomic status, access to health insurance, transportation, and the presence of parental support.

Respect

When discussing respect, the participants focused again on the development of relationships and the importance of empowering the adolescent. The examples of respect included always gaining consent for care and addressing the adolescent to discuss concerns during the visit. Many of the participants also discussed other topics in this section as there were crossovers among respect, providing a nonjudgmental approach, and establishing a trusting relationship. Confidentiality was addressed by many participants in this area as well.

Privacy

When discussing privacy in the primary care setting many participants focused on the physical aspects of privacy along with the importance of confidentiality. All participants stated they provided private time with the adolescent provider for screening and opportunity to discuss any concerns. Although all participants discussed they provided time alone with the adolescent, there were various strategies used to accomplish this. Some participants discussed meeting with parents first and then asking them to leave, or meeting with adolescent first and then following up with parents. The contributing factors included the age of the adolescent, the established relationship, and the comfort level of the adolescent. Privacy was also discussed in terms of confidentiality. Although the participants discussed the importance of confidentiality, they discussed the barriers with providing confidential care due to insurance billing and

electronic health record reports on the summary of care provided to the parents. There were some different responses regarding the importance of confidentiality.

Judgment

When discussing nonjudgmental care, the participants focused on the physical ways to express nonjudgment such as remaining open minded and not expressing judgment through body language or facial expressions. The participants discussed examples of when they would hear shocking stories but always maintained a neutral welcoming facial expression. The participants discussed how they were open to discussing gender identity and sexual activity.

Quality

Quality was discussed by the providers with the focus on immunizations that are provided based on the quality indicators and the recommendations of the AAP. The quality of telehealth was also discussed by the participants with discussions that included the limited research on telehealth and health outcomes. Participants were sure to discuss that telehealth was only used for those adolescents who needed a follow-up from a previous in-person visit or for mental health. Telehealth was not used in the instance where an in-person physical exam was appropriate.

Appropriate

The participants discussed the appropriateness of adolescent services, such as the physical aspects of the primary care offices did not accommodate for the developmental needs of the adolescent. Many primary care providers discussed how they would like to have a separate space for the adolescents to wait and have more age appropriate exam

rooms. The primary care providers suggested that the adolescent may not mind the physical characteristics of the office. Many of the participants discussed that the physical space was often geared toward the adult or the younger pediatric population. As far as educational material, there was no consistent use of educational material that was developmentally appropriate to the adolescent population. A few participants discussed using Bright Futures and the education provided through the electronic medical record for any specific diagnosis.

The above discussion introduced the topics within the interview along with the domains recommended by the WHO for adolescent friendly health services. The following information will address the themes identified in the research based on each research question.

Themes

Themes Related to Research Question 1: What Familiarity Do Primary Care Providers Have with the WHO's Domains for Adolescent Friendly Health Services?

During the first part of the interview demographics questions were asked based on the familiarity of the provider with the WHO's recommendations for adolescent friendly health services including the domains discussed above. The overall response of the participants included that the primary care providers were not familiar with the WHO's recommendations for adolescent friendly health services.

Theme 1: Familiarity with the WHO's domains of adolescent friendly health services. The first theme was based on the demographic question regarding familiarity with the WHO's recommendations for adolescent friendly health services. All but one

participant responded that they were not familiar with the WHO's domains of adolescent friendly health services. The only participant who indicated yes, she was familiar, said she has heard of it but did not expand to show evidence of the specific domains. At the time the participants responded to this question, an explanation was provided by the researcher that all the next questions would be based on the WHO's domains of adolescent friendly health services.

Subtheme: Adolescent Training. Another question addressed in the demographic portion of the interview asked if the primary care provider was provided specific training for the adolescent population in academic theory course or in a clinical residency setting. All but two participants stated that they did not receive training specific to the adolescent population. However, two participants stated that they sought out specific clinical residency opportunities that provided additional training in caring for the adolescent population. These two participants stated they were provided additional training in caring for the adolescent population after showing interest and seeking out the opportunity on their own. One participant, a family nurse practitioner of African American decent and in practice for 1.5 years, stated that she was able to spend extra clinical time in an adolescent clinic when she requested the opportunity. She stated the following about this experience:

> I think it is so important to receive training specific to the adolescent population, they are not children and they are not adults, there is also so many differences between the young adolescent versus the older adolescent. As providers we really need to care for them based on their developmental age and maturity level.

This speaks to the desire for providers to provide the best care to this population, but one barrier may be the lack of specific training, which most of the participants discussed.

Themes Related to Research Question 2: What Adolescent Friendly Health Services Are Provided in the Primary Care Setting to Address Adolescent Pregnancy?

The second research question refers to the specific services provided in the primary care setting. The services provided refer to the domains recommended by the WHO. Each question on the interview guide aligned with the research question to address the adolescent health services provided by the primary care providers. The participants were reminded during the interview process that the questions aligned with the domains that were recommended by the WHO. This part of the results provides an analysis of the data based on the use of the research instrument that focused on the domains discussed above.

Theme 2: Family Influences. One of the domains includes access to primary care services and parental influences on access to health services in the primary care setting. All respondents agreed that the parental figure was influential in where the adolescent sought out services but did not provide further insight into the different influences that affected seeking care. Many participants discussed that the parental role varied with each family and that often grandparents or aunts provide care for the adolescent. Although there was diversity with the family unit, the participants still felt that the family was a major influence on adolescents seeking care in the primary care setting.

Subtheme: Trusting Parental Relationship. There was a consistent response regarding the relationship that is created between the parent and the care provider. The participants consistently discussed the importance of having a trusting working relationship with the parents because they were the ones who would help the adolescent access the care needed. This information was elicited through the discussion of access to care and parental support. When addressing these questions, the participants provided insight to the idea that for adolescents to access health care services they needed the help of the parental figure in their life. Participants discussed the importance of remembering that not all adolescents are living with their parents; they may be with a guardian or grandparent. Whomever was identified as the parental role model in the adolescent's life was influential in accessing health care services according to the participants. One participant, a medical doctor of Caucasian descent who has been providing care for 33 years, stated the following regarding parental influences on accessing primary care services: "A new patient needs to come with their parent when seeking care and provide insurance information to access care here. The adolescent cannot come in to seek care without a parent who would provide insurance information."

Another participant who is a family nurse practitioner, is of Caucasian decent, and has been providing care for 7 years explained access to care and parental support in this way:

> Generally speaking, the adolescent who seek health care services are those who have parents that are actively keeping up with their health care. If parents take their own health seriously then the adolescent will normally be seen for regular

> visits. If parents tend to not be actively seeking health care themselves, then the adolescent tends to also be missing appointments or be no shows. This tends to be directly related to the parents valuing the continued care and the relationship with the provider. The other piece is that the parents tend to reach out when something occurs that they are unable to manage at home and typically that is a mental health issue.

Another participant who is a family practice physician assistant, of Caucasian descent, and who has been providing care for 15 years discussed the importance of access and parental support saying, "It is all about getting the parent and adolescent to the office to build that relationship first and then later on in adolescence they have an opportunity to seek out health care on their own."

Subtheme: Neglect. Many participants discussed the issues with having a positive parental figure to role model the importance of primary care. Some participants discussed the barriers that included parental figures neglecting to seek primary health care services for their adolescent. Some participants discussed that in the adolescent years there is a gap in primary care and that the services are sought out only when there is an issue that cannot be handled. Here is what one participant, a medical doctor of Caucasian decent who has been providing care for 33 years, had to say about this topic:

> I think it's difficult because there is emotional and physical abuse to some degree in households so adolescents want to avoid any further discussion when they get home so when you are interviewing them they may not always be honest. I recognize the need to have those appointments in private for the older adolescent.

> Sometime parents request be part of the discussion and the visit making it hard to assess any issues that need to be addressed. Sometimes we cannot give the adolescent the care we need to because we are unable to extract the information needed to create a plan for them.

Another participant, a nurse practitioner of Caucasian decent who has been providing care for 1.5 years, discussed the idea of the adolescent who may experience emotional abuse and may be seeking acceptance and that this may be a contributing factor to adolescent pregnancy. Here is how she explained her thoughts on this topic:

> I think there are many influences of adolescent pregnancy, but also parental involvement is so important especially parental supervision and who the adolescents are hanging out with. They may be seeking out acceptance from their peers, do they have the self-esteem needed to be sure they protect themselves, or has there been emotional or physical abuse by the parents that they keep seeking out the acceptance from other. They may be looking for someone else to love them.

The next subtheme developed through family support because lack of family support or influence on care may lead to mental health issues. Along with this many providers discussed using telehealth to address these issues.

Subtheme: Mental Health and Telehealth. The participants also spoke about the mental health challenges that existed within the family and the barriers for establishing, seeking, and maintaining care in the primary care setting. Due to the preexisting mental health challenges that existed within the family there was a gap in care based on the

ability of the parental figure to provide the parental support needed and address the health of the adolescent.

There was an overwhelming response from the participants regarding the use of telehealth for the management of mental health issues for the adolescent population. All providers discussed that telehealth is used for mental health and for follow-up appointments. The participants discussed that in the beginning of the pandemic many families were canceling appointments for well visits and that there was an increase in telehealth visits for non-emergent and mental health concerns. A Caucasian medical doctor who has been providing care for 32 years, discussed the adolescent's response to telehealth appointments, saying,

> Adolescent patients are very receptive and appreciative of telehealth visit because they feel they have your undivided attention, they did not need to wait in a waiting room and it takes the middle man out, there is direct access to the provider. The patients who have issues with personal space and eye contact do better on the phone and are more relaxed. The patients tend to ask for follow-ups via telehealth because they feel more comfortable as opposed to coming into the office. I make sure I make those appointments for them and then there are less barriers with follow-up. This allows for the patient to be in control of their care.

The participants discussed telehealth to improve patient satisfaction and to improve compliance with minimizing the risk of exposure to potential infection and follow guidelines for recommendations of social distancing in the time of a pandemic.

One participant discussed the use of telehealth to address reproductive needs as well, saying, “telehealth has been a good resource for providing birth control for adolescents for already established patients and they just need a refill and to be sure the method is working for them.”

Themes Related to Research Question 3: How Do Adolescent Friendly Health Services in the Primary Care Setting Influence Adolescent Pregnancy?

Theme 3: Confidentiality. Confidentiality was identified as a theme and discussed when speaking about the topics of, respect, privacy, and nonjudgment. Participants discussed confidentiality with stating that all adolescents have the right to confidentiality, but the strategies used to ensure confidentiality differed slightly between participants. Many different topics emerged under this topic including confidentiality regarding mental health, reproductive health and the use of drugs and alcohol. The providers all discussed the importance of explaining the rules of confidentiality with the adolescent. The following subthemes have been identified under the theme of confidentiality: privacy and nonjudgment.

Subtheme: Privacy. Privacy was the focus of one of the questions in the questionnaire and the responses by the providers were varied but also had some similarities. It appeared that they spoke about this topic in a way that established an understanding of physical privacy and then spoke about confidentiality. All providers stated that they like to provide time with the adolescent alone to assess any concerns or needs they may have. The provider also will accommodate any request for the parent to remain in the room if needed. Many spoke that this was dealt with on an individual basis

but was not always dictated by a specific age but the comfort of the parent and the adolescent. A Caucasian physician assistant who has been providing care for 15 years, explained the way she informed the parents of the importance of privacy during a visit, saying,

> I always let the parents know that the adolescent should have an opportunity to speak with me privately so that if there are any issues that they can be addressed. I let the parent know that the adolescent may be willing to be more truthful during routine screening.

Privacy can be discussed in relationship to providing a private space or ensuring that the discussions between the adolescent and the provider remain private. One Caucasian participant, a medical doctor providing care for 33 years, discussed the challenges with keeping the conversations private with his adolescent patients, saying,

> I would have the opportunity to discuss with the adolescent any concerns they may have in private and then document them in the electronic medical record so there would be a record of it. This would generate documentation of the visit so I would need to be careful to delete the private conversations that we may have had that they did not want their parents to know about. I tried to always be careful of this and to maintain their confidentiality.

Confidentiality appeared to be a concern for many providers, and they addressed the issues in a variety of ways. Some of the concern for confidentiality was regarding the billing of insurance companies and how this may breech the confidentiality for some patients. One provider discussed how he felt that one way to avoid this is by telling

parents that all adolescents are screened routinely for such conditions. Another provided privacy for her patients in a unique way through the urine sampling process. Urine sampling is a routine screening that may be done at a well appointment for adolescents. The provider gave an example of using this screening as another assessment tool. The instructions provided to the adolescent included that they write their name in red on the sample if there was something they needed to discuss in private, and then the provider would ask the parents to step out of the room for further follow-up of any concerns the adolescent may have. The provider has an opportunity to provide this private space then to discuss any concern and questions they may have in a nonjudgmental way.

The next subtheme that was identified was nonjudgment. This information regarding nonjudgment was elicited through the questionnaire and similar responses were obtained.

Subtheme: Nonjudgment. The participants responded to the question regarding ways that they provide a nonjudgmental environment for the adolescents they care for. Many participants discussed the physical attributes to displaying nonjudgment such as facial expression and body language. Many participants discussed that although they may be shocked by some of the information, they receive from the adolescent they remain open and do not show emotion. One provider explained her response to an adolescent sharing information, explaining "when an adolescent tells me something shocking, I do not show emotion or judgment. My role is not to judge them for their behaviors but to help them go about that activity in a safe way." Another provider discussed nonjudgment in relationship to those who are struggling with gender identity. He stated how it is so

important to remain open and honest with the adolescent and help them gain the resources they may need. He also discussed that maintaining confidentiality and a nonjudgmental approach is essential to providing quality adolescent care.

Theme 4: Social Determinants of Health. Another theme identified when analyzing the data included the social determinants of health and how these determinants of health influence adolescents seeking care in the primary care setting and how this influences adolescent pregnancy. According to Heathy People 2020,

> our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships.

The participants discussed many different aspects of care in the primary care setting. Although some participants did not mention the term social determinants of health, they did discuss many aspects of care that involved the social determinants of health. The participants discussed the socioeconomic status, education, and cultural considerations of the adolescent and family they were caring for.

Subtheme: Environment. The participants discussed the influences of the environment when adolescents are seeking care in the primary care setting. This was discussed from the physical aspects of the environment such as physical location of the adolescent in relationship to the primary care office. Regarding the physical environment, transportation was addressed as a barrier for adolescents seeking and maintaining care.

The theme of environment and transportation were discussed under the topics of equality and access, with providers suggesting that the lack of transportation to appointments is a barrier to receiving primary care for families and adolescents. One African American participant who has been providing care as a nurse practitioner for 9 years discussed the environmental influences, saying,

> The needs of the adolescent are determined by the community in which the adolescent lives. There is an increase in adolescent pregnancy in certain geographic locations within New York State. Care must be tailored to the specific population you are working with based on the risk found within that community. It would be irresponsible to not address the increase in adolescent pregnancy in certain geographic areas within New York State.

***Subtheme: Socioeconomic Status*.** Socioeconomic status was discussed in many ways by the participants. Throughout the interview's participants discussed socioeconomic status under different parts of the interview process and under many different topics. Socioeconomic status was mentioned by the participants under the following topics: access, community support, and equality. The same participant quoted above discussed the importance of health insurance to meet the needs of the adolescent population, saying,

> Health disparities exist because of structural racism and housing discrimination and barrier to insurance and access to care that was created by policy and governmental regulations. The social construct of things has caused the health disparities. Equality is more important to provide the resources needed for the

> individual based on the needs. Health care is a privilege not a right. Insurance influences this because lack of insurance or underinsured provider may not take you and if you have other barriers then you are not able to get to the provider you need to. Let's say you don't have insurance that has the best providers you may have to wait for a doctor that can meet your needs. One of the local hospitals will see my patients but they must wait 2 to 3 months before they will see them. We live in a community where resources are available, but patients have to wait if they are underinsured or on Medicaid. Those with chronic conditions end up being urgent care or emergency department users when their issues could be addressed in the primary care setting in the earlier stages of the disease. There is a lot of fragmentation in the health care system that contributes to the problem.

During the interview, one participant was asked to discuss the idea of equality of care. This Caucasian medical doctor who has been providing care for 33 years responded in this way:

> My practice accepts all insurances, patients and families are able to get in and be seen regardless of payment. What I found though is that during this time of COVID 19 families are struggling with the ability to get nutritious meals. The schools are providing lunches to the adolescents at home, but the food is processed and many times just a bag of chips or small piece of turkey for a meal. Many of the items they give them are high sugar and have minimal nutrients. Families of lower socioeconomic status the adolescents are living with a

> guardians or grandparents that do not know about the health history or immunizations.

Subtheme: Education. The participants discussed the role of education in seeking health care services. Education was discussed mostly under the domain of access, parental support, and equity. Some participants discussed the education level or health literacy for a reason that parents do not seek health care for their adolescents and that this may be an overall barrier for adolescent being able to access care in the primary care setting. One participant responded with the following comment: "The access to care is many times based on education, where I am providing care currently, parents, grandparents or care givers do not access care themselves but that is because of lack of education."

When discussing the domain of appropriateness of adolescent health services, a medical doctor of Asian descent who has been providing care for 7 years, discussed education that is provided for the adolescent in the primary care setting, saying,

> As provider we could do a better job of providing more developmentally appropriate education for the adolescent population. We need to utilize electronic forms of education in forms of apps and social media for education to meet the needs of the adolescent. The adolescent will always be willing to find something on their phone and it may not always be the best option for education. We can do much better in the regards for education.

Here is an explanation from a Caucasian medical doctor who has been providing care for 30 years, regarding appropriateness of educational material provided to the adolescent population:

> After we give vaccines we print out the information form for the parents or guardian, other than that I do not have any educational materials that I routinely give out at regular visits, but for well visits I provide a prepopulated educational sheet from Bright Futures that focuses on the age. If a diagnosis comes up, I print patient information specific to that diagnosis.

Another participant discussed that due to COVID 19 all educational material such as flyers and pamphlets were removed from the waiting area. The participant did not have an alternative for educational material.

Subtheme: Culture. Another theme identified in the analysis of the data was the influence of culture and the parental perceptions of seeking primary care services. Some participants discussed that many times there will be missed appointments for primary care but then they will receive a report the adolescent patient was seen in the emergency room or urgent care. Culture was also discussed regarding adolescent friendly health services and the influence on adolescent pregnancy and some participants described the phenomena of adolescent pregnancy as having a culturally component where it becomes culturally normal with some ethnic groups. An African American nurse practitioner who has been providing care for 9 years explains this further below:

> Meeting the need of the adolescent is very important because they are very much in the moment, they need services that meet all the domains to be adolescent

friendly. The domains are influential in adolescent pregnancy because if they are not provided the adolescent may not seek care.

This same participant also discussed culture in a way to focus on the social norms for the population she was serving, saying,

> Adolescent pregnancy can sometime be seen in some geographic locations and we see it becomes the norm for generations of families living together and having babies' young in life. We need to think about the disparities in the communities and determine what is happening within those communities, because we see such discrepancies in neighboring counties.

Summary

The purpose of this study was to gain insight into the perceptions of primary care providers on adolescent health services and how they relate to adolescent pregnancy. The goal of this chapter was to present the data collected from the participants. After interviewing 10 participants saturation was met and the data was analyzed to determine five themes. The themes included the following: familiarity with the WHO's domains of adolescent friendly health services, family influence, confidentiality, and social determinants of health.

The analysis of the data and identification of themes were based the theoretical and conceptual framework as well as the literature review. According to Tanner, Secor-Turner, Garwick, Sieving, & Rush (2012) there are social and political barriers to ensuring adolescent friendly health services are provided in the primary care setting. Riley, Patterson, Lane, Won, & Ranalli (2018) discussed the importance of primary care

providers meeting the developmental needs of the adolescent population. The participants discussed this idea openly that they would like to provide services that are adolescent friendly but there continues to be many barriers. This research identified that those barriers are the lack of knowledge by the providers, lack of training, along with the impact of the social determinants of health. Chapter 5 will include the discussion, interpretation, and implication of findings.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This research was conducted to gain a deeper understanding of the perceptions of primary care providers on adolescent friendly health services and the relationship of these services to adolescent pregnancy. This phenomenological research provided insight into the familiarity of the primary care providers with the WHO's recommendations for adolescent friendly health services. I adapted the research instrument, validated by Haller et al. (2012), to include adolescent pregnancy and telehealth and used it to conduct structured interviews. The key findings revealed that most participants were not familiar with the WHO's domains that are recommended for adolescent friendly health services. This is consistent with the literature review that focused on scaling up of adolescent friendly health services by Carai et al. (2015), Chandra-Mouli et al. (2013), and Nguyen et al. (2019). The research also revealed that there was no training provided to the primary care providers that is specific to the adolescent population with exception of two primary care providers who sought out additional training through additional clinical residencies. These findings were also consistent with the literature review conducted identifying a gap in the research on the upscaling of the WHO's (2018) recommendations for adolescent friendly health services in the United States. Lastly, through this research I determined that primary care providers did feel that there was a relationship between adolescent friendly health services and adolescent pregnancy. The research was conducted based on the conceptual framework and the findings are consistent with the

theoretical framework which includes the social ecological model. The social ecological model was developed to show the connectedness between individuals and their sociocultural environments (Glanz et al., 2015). Other key findings of this research included themes and subthemes that were consistent with the theoretical framework and the literature review. The themes and subthemes identified through coding showed that there was a relationship between adolescent friendly health services and adolescent pregnancy.

Interpretation of Findings

This research confirmed the findings and extends the knowledge in the topic of adolescent health when compared to the peer reviewed literature. The first research question addressed the familiarity of the providers with the WHO's domains of adolescent friendly health services. This research confirmed that there is an overall lack of upscaling of adolescent friendly health services in the primary care setting. The research confirmed that primary care providers are not familiar with the WHO's domains of adolescent friendly health services and lack the knowledge and ability to provide adolescent friendly health services. The relationship between providing these services and adolescent pregnancy was also confirmed and was consistent with literature discussed by Carai et al. (2015), Chandra-Mouli et al. (2013), and Nguyen et al. (2019). The connection to the social ecological model includes the participants' awareness of the social and environmental factors of this topic. The social ecological model was used as a theoretical framework to identify the connections between adolescents and their physical and sociocultural environment (see Glanz et al., 2015).

The second research question focused on the actual domains and the primary care providers' perceptions of each domain and the relationship to the care provided in the primary care setting. My research revealed consistencies with the literature review in relationship to the theoretical framework as many of the research questions focused on physical aspects of care in the primary care setting along with the sociocultural environment of the adolescent. The findings are consistent with Chester et al.'s (2019) research which discussed the importance of considering community and environment factors that affect the health of the adolescent. Likewise, the participants provided insight that reflected Cherry and Dillion's (2014) ideas that adolescent care should be provided with an ecological perspective. Many providers responded to the questions with a desire to provide services in a more appropriate setting but found there were many barriers including physical space and the inability to consistently meets the needs of the adolescent because they were serving many different developmental ages. One of the themes identified that was consistent with the literature was the influence of the social determinants of health on the ability of the adolescent to access health care. The literature provided by Diaz and Fiel (2016) discussed the influences of social determinants of health on adolescents seeking primary care. Another theme identified was cultural influences, of adolescent pregnancy which was also discussed in the literature review by Cherry and Dillion (2014). The authors discussed the social and cultural norms that develop within American culture that influence adolescent pregnancy (Cherry & Dillion); this topic was also discussed by the participants in a similar way. Some of the participants discussed that there is a cultural influence that exists within families and communities

that may influence how and where adolescents seek care and influence adolescent pregnancy as well. The themes identified in this area are consistent with the literature review provided. The themes identified are also consistent with the theoretical framework. The social ecological model has been used in previous research by Wold and Mittelmark (2018) to improve health outcomes in the adolescent population by providing an environment that promoted well-being and an opportunity for health promotion. The themes presented in this research also relate to social ecological model.

The last research question focused the relationship between adolescent friendly health services and adolescent pregnancy. The findings revealed that many participants felt the domains of adolescent friendly health services played a part in the adolescent's ability to access quality health care that was appropriate. Many participants found that if the services provided were not friendly this may be a barrier to the adolescent accessing care consistently which could influence adolescent pregnancy. Along with this the participants spoke to the inability to provide care that was appropriate and equitable due to many social and structural barriers. This is consistent with the literature review, identified by Cherry and Dillion (2014), that contributing factors to an adolescent's pregnancy include inequality in health services and the influence of environmental factors. Along with this, the CDC (2019) discussed the increased rates of adolescent pregnancy among minorities showing disparities in care. The analysis of the finding in relationship to the conceptual framework included that the participants responded openly that the WHO recommendations for adolescent friendly health services, including the domains discussed above, do have an influence on adolescent pregnancy. The themes

identified connect to the social ecological model. Glanz et al. (2015) discussed the multiple environmental factors that influence health. The participants also agreed that upscaling the adolescent friendly health services may influence adolescent pregnancy and health outcomes for the adolescent.

The research extends the knowledge by providing insight to potential barriers for providing adolescent friendly health services and provides insight into the perceptions of primary care providers regarding the influence of adolescent friendly health services on adolescent pregnancy. After analyzing and interpreting the findings with a focus on the conceptual framework, the findings indicate that the WHO's recommendations are an essential part of the process to investigate how adolescent friendly health services in the primary care setting influence adolescent pregnancy.

Limitations of the Study

One potential limitation of the study was the participants not representing the entire geographic area. Although the participants were from a variety of demographic locations within New York State their demographic area may have not been representative of all locations in the state. Due to diversity of the participants based on geographic locations and the populations they serve the perceptions of adolescent pregnancy being a public health issue may vary. Another limitation was the subjectivity that is experienced as a novice researcher.

Recommendations

The recommendations for further studies are based on the strengths and limitations of this research as well as the findings established in the review of the

literature. The strengths of this research include the theoretical and conceptual framework in which the literature review was conducted as well as the plan for the research method. The use of the research instrument and that it was developed and approved by Haller et al. (2012) is another strength of this research. The limitations of this research included the limited geographic area of including only one state. The recommendations would be to replicate this research with representation from many different geographic locations in the United States and include quantitative research to further support the findings.

Recommendations for further research include a quantitative research study to identify primary care providers' awareness of the WHO's recommendations for adolescent friendly health services with a larger participation and how this relates to adolescent pregnancy. This would provide the opportunity to gain better insight to the awareness of the recommendations set forth by the WHO on adolescent friendly health care. The recommendation would be to conduct this research country wide as opposed to in only one geographic location. The recommendation for this is based on the literature review and evidence that there is a gap in the literature on adolescent friendly health services in relationship to adolescent pregnancy in the United States.

Implications for Positive Social Change

The implications for this research include the potential for positive social change based on bringing awareness to the topic of adolescent friendly health services. Through the process of interviewing primary care providers regarding their perceptions of adolescent friendly health services in relationship to adolescent pregnancy, awareness was raised of the WHO's domains for making health services adolescent friendly.

Increasing the primary care providers' awareness of the WHO's recommendations for adolescent friendly health services may initiate conversation regarding improving adolescent health services. Through this discussion there may be an interest to upscale these services to meet the needs of the adolescent population and may influence pregnancy in the adolescent population. This upscaling of adolescent friendly health services may improve overall the services provided and potentially can influence adolescent pregnancy. Overall positive social change can take place when policy is put in place to make changes to current practice and to implement the upscaling of adolescent friendly health services to potentially influence adolescent pregnancy.

Conclusion

In conclusion this research has identified the perceptions of primary care providers on adolescent friendly health services in relationship to adolescent pregnancy. The research focused on filling the gap that exists on this topic and bringing awareness to the WHO's recommendations of adolescent friendly health services. The application of the theoretical framework and conceptual framework along with an in-depth literature review identified the gap and need for further research in this area. The overall goal of this research was to create a positive social change by bringing awareness to this topic and potentially improving health services for the adolescent population by decreasing adolescent pregnancy.

References

ACT for Youth. (2019). Center for Community Action. Retrieved from http://www.actforyouth.net/

American College of Obstetricians and Gynecologists, Committee on Gynecologic Practice. (2014). *ACOG committee opinion on well-woman visit.* Retrieved from https://www.acog.org/

Boustani, M. M., Frazier, S. L., Hartley, C., Meinzer, M., & Hedemann, E. (2015). Perceived benefits and proposed solutions for teen pregnancy: Qualitative interviews with youth care workers. *American Journal of Orthopsychiatry, 85*(1), 80–92.

Bright Futures, Bright Futures Guidelines and Pocket Guide. (2020). Retrieved from https://brightfutures.aap.org/materials-and-tools/guidelines-and-pocket-guide/Pages/default.aspx

Brittain, A. W., Briceno, A. C. L., Pazol, K., Zapata, L. B., Decker, E., Rollison, J. M., … Koumans, E. H. (2018). Youth-friendly family planning services for young people: A systematic review update. *American Journal of Preventive Medicine, 55*(5), 725–735. https://doi-g.ezp.waldenulibrary.org/10.1016/j.amepre.2018.06.010

Brown, H. K., Mueller, M., Edwards, S., Mill, C., Enders, J., Graves, L., … Dennis, C.-L. (2017). Preconception health interventions delivered in public health and community settings: A systematic review. *Canadian Journal of Public Health*, 108(4), 388–397.

Burrus, B. B. (2018). Decline in adolescent pregnancy in the united states: A success not shared by all. *American Journal of Public Health, 108*(S1), S5–S6. https://doi-org.ezp.waldenulibrary.org/10.2105/AJPH.2017.304273

Carai, S., Bivol, S., & Chandra-Mouli, V. (2015). Assessing youth-friendly-health-services and supporting planning in the Republic of Moldova. *Reproductive Health*, 12, 98. https://doi-org.ezp.waldenulibrary.org/10.1186/s12978-015-0088-6

Centers for Disease Control and Prevention. (2019). About teenage pregnancy. Retrieved from https://www.cdc.gov/teenpregnancy/about/index.htm

Chandra-Mouli, V., Camacho, A. V., & Michaud, P. (2013). WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. *Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine, 52*(5), 517-522. https://doi:10.1016/j.jadohealth.2013.03.002

Chandra-Mouli, V., Chatterjee, S., & Bose, K. (2016). Do efforts to standardize, assess and improve the quality of health service provision to adolescents by government-run health services in low- and middle-income countries, lead to improvements in service-quality and service-utilization by adolescents? *Reproductive Health*, 1–8. https://doi:/10.1186/s12978-015-0111-y

Cherry, A., and Dillon, M. (2014). *International handbook of adolescent pregnancy: Medical, psychosocial, and public health responses*. New York, NY: Springer Science & Business Media.

Chester, K. L., Magnusson, J., Klemera, E., Spencer, N. H., & Brooks, F. (2019). The mitigating role of ecological health assets in adolescent cyberbullying victimization. *Youth & Society, 51*(3), 291–317.

Chung, H. W., Kim, E. M., & Lee, J.-E. (2018). Comprehensive understanding of risk and protective factors related to adolescent pregnancy in low- and middle-income countries: A systematic review. *Journal of Adolescence, 69*, 180–188. https://doi-org.ezp.waldenulibrary.org/10.1016/j.adolescence.2018.10.007

Daley, A. M., & Polifroni, E. C. (2018). "Contraceptive care for adolescents in school-based health centers is essential!": The lived experience of nurse practitioners. *Journal of School Nursing, 34*(5), 367–379. https://doi-org.ezp.waldenulibrary.org/10.1177/1059840517709503

Danawi, H., Bryant, Z., & Hasbini, T. (2016). Targeting unintended teen pregnancy in the U.S. *International Journal of Childbirth Education*, *31*(1), 28-31.

Denno, D. M., Hoopes, A. J., & Chandra-Mouli, V. (2015). Effective strategies to provide adolescent sexual and reproductive health services and to increase demand and community support. *Journal of Adolescent Health, 56*(1), S22–S41. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2014.09.012

Diaz, C. J., & Fiel, J. E. (2016). The effect(s) of teen pregnancy: Reconciling theory, methods, and findings. *Demography, 53*(1), 85-116.

Espada, J. P., Morales, A., Guillen-Riquelme, A., Ballester, R., & Orgiles, M. (2016). Predicting condom use in adolescents: A test of three socio-cognitive models using a structural equation modeling approach. *BMC Public Health, 16,* 35.

https://doi-org.ezp.waldenulibrary.org/10.1186/s12889-016-2702-0

Fertman, C. I., & Allensworth, D. D. (2017). *Health promotion programs: From theory to practice* (2nd edition.). San Francisco, CA: Jossey-Bass.

Fetta, A., Harper, P., Knight, V., & Williams, J. (2018). Predicting adolescent social networks to stop smoking in secondary schools. *European Journal of Operational Research, 265*(1), 263–276. https://doi-org.ezp.waldenulibrary.org/10.1016/j.ejor.2017.07.039

Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2015). *Health behavior: Theory, research, and practice* (5th ed.). San Francisco, CA: Jossey-Bass.

Grealish, A., Hunter, A., Glaze, R., & Potter, L. (2005). Telemedicine in a child and adolescent mental health service: Participants' acceptance and utilization. *Journal of Telemedicine and Telecare, 11*(Suppl 1), 53–55. https://doi-org.ezp.waldenulibrary.org/10.1258/1357633054461921

Guljas, R., Ahmed, A., Chang, K., & Whitlock, A. (2014). Impact of telemedicine in managing Type 1 diabetes among school-age children and adolescents: An integrative review. *Journal of Pediatric Nursing, 29*(3), 198–204. https://doi-org.ezp.waldenulibrary.org/10.1016/j.pedn.2013.10.013

Hagel, L. D., Mainieri, A. S., Zeni, C. P., & Wagner, M. B. (2009). *16-Item questionnaire based on the HEADSS.* [Database record]. Retrieved from PsycTESTS. https://doi-org.ezp.waldenulibrary.org/Full text; 999926110_full_001.pdf

Haller, D. M., Meynard, A., Pejic, D., Sredic, A., Huseinagic, S., Courvoisier, D. S., … Narring, F. (2012). YFHS-WHO+ Questionnaire: Validation of a measure of youth-friendly primary care services. *Journal of Adolescent Health, 51*(5), 422–430. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2012.01.019

Healthy New York. (2014). Rate of teenage pregnancy. Retrieved from https://www.health.ny.gov/publications/0548/healthy_new_york.htm

Hoopes, A. J., Agarwal, P., Bull, S., & Chandra-Mouli, V. (2016). Measuring adolescent friendly health services in India: A scoping review of evaluations. *Reproductive Health, 14*, 137. https://doi-org.ezp.waldenulibrary.org/10.1186/s12978-016-0251-8

Huaynoca, S., Svanemyr, J., Chandra-Mouli, V. C., & Moreno Lopez, D. J. (2015). Documenting good practices: Scaling up the youth friendly health service model in Colombia. *Reproductive Health*, 12, 90. https://doi-org.ezp.waldenulibrary.org/10.1186/s12978-015-0079-7

Hutchinson, M., & Wood, E. B. (2007). Reconceptualizing adolescent sexual risk in a parent-based expansion of the theory of planned behavior. *Journal of Nursing Scholarship*, (2), 141. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=edsovi&AN=edsovi.00128195.200706000.00007&site=eds-live&scope=site

Jiskrova, G. K., & Vazsonyi, A. T. (2019). Multi-contextual influences on adolescent pregnancy and sexually transmitted infections in the United States. *Social Science & Medicine*, 224, 28–36. https://doi-

org.ezp.waldenulibrary.org/10.1016/j.socscimed.2019.01.024

Johnson-Motoyama, M., Moses, M., Kann, T. K., Mariscal, E. S., Levy, M., Navarro, C., & Fite, P. J. (2016). Parent, teacher, and school stakeholder perspectives on adolescent pregnancy prevention programming for Latino youth. *The Journal of Primary Prevention, 37*(6), 513-525.

Jozkowski, K. N., & Crawford, B. L. (2016). The status of reproductive and sexual health in southern USA: Policy recommendations for improving health outcomes. *Sexuality Research and Social Policy, 13*(3), 252–262. https://doi-org.ezp.waldenulibrary.org/10.1007/s13178-015-0208-7

Kappe, R. (2016). The effect of the religious environment on teenage birth rates in the United States. *Sexuality Research and Social Policy*, *13*(3), 241–251. https://doi-org.ezp.waldenulibrary.org/10.1007/s13178-015-0206-9

Kok, G., Bartholomew, L. K., Parcel, G. S., Gottlieb, N. H., & Fernandez, M. E. (2011). Finding theory- and evidence-based alternatives to fear appeals: Intervention mapping. *International Journal of Psychology, 49*(2), 98–107. https://doi-org.ezp.waldenulibrary.org/10.1002/ijop.12001

Kopel, H., Nunn, K., & Dossetor, D. (2001). Evaluating satisfaction with a child and adolescent psychological telemedicine outreach service. *Journal of Telemedicine and Telecare, 7* Suppl 2, 35–40.

Laptev, D., & Peterkova, V. (2018). Use of telemedicine improves glycemic control and quality of life in type 1 diabetes children on insulin pump therapy. *Saharnyj*

Diabet, 20(6), 420–426. https://doi-org.ezp.waldenulibrary.org/10.14341/DM8677

Lee, E. C. (2017). Adolescent preferences for topics addressed during well visits. *WMJ: Official Publication of The State Medical Society of Wisconsin, 116*(4), 210–214. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=mnh&AN=29323808&site=eds-live&scope=site

Mueller, T., Tevendale, H. D., Fuller, T. R., House, L. D., Romero, L. M., Brittain, A., & Varanasi, B. (2017). Teen pregnancy prevention: Implementation of a multicomponent, community-wide approach. *Journal of Adolescent Health, 60*(3), S9–S17. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2016.11.002

New York State Department of Health. (2019). Teenage pregnancy rates. Retrieved from https://www.health.ny.gov/statistics/chac/birth/b13.htm

Ng, K., Mäkelä, K., Parkkari, J., Kannas, L., Vasankari, T., Heinonen, O. J., … Kokko, S. (2017). Coaches' health promotion activity and substance use in youth sports. *Societies*, 7(2), 4.

Nguyen, G., Costenbader, E., Plourde, K. F., Kerner, B., & Igras, S. (2019). Scaling-Up normative change interventions for adolescent and youth reproductive health: An examination of the evidence. *Journal of Adolescent Health, 64*(4), S16–S30. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2019.01.004

O'Uhuru, D. J., Santiago, V., Murray, L. E., Travers, M., & Bedell, J. F. (2017). Bronx teens connection's clinic linkage model: Connecting youth to quality sexual and

reproductive health care. *Journal of Adolescent Health, 60*(3), S38–S44. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2016.12.008

Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). Thousand Oaks, CA: SAGE.

Rai, S. K., Anand, K., Misra, P., Kant, S., & Upadhyay, R. P. (2012). Public health approach to address maternal mortality. *Indian Journal of Public Health,* 56(3), 196-203. https://doi:10.4103/0019-557X.104231

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: Bridging the conceptual, theoretical, and methodological*. Thousand Oaks, CA: Sage Publications.

Riley, M., Patterson, V., Lane, J. C., Won, K. M., & Ranalli, L. (2018). The adolescent champion model: Primary care becomes adolescent-centered via targeted quality improvement. *The Journal of Pediatrics, 193,* 229–236. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jpeds.2017.09.084

Saldaña, J. (2016). *The coding manual for qualitative researchers (3rd ed.*). Thousand Oaks, CA: SAGE.

Schiel, R., Beltschikow, W., Radon, S., Kramer, G., Schmiedel, R., Berndt, R.-D., & Stein, G. (2008). Long-term treatment of obese children and adolescents using a telemedicine support programme. *Journal of Telemedicine and Telecare, 14*(1), 13–16. https://doi-org.ezp.waldenulibrary.org/10.1258/jtt.2007.070504

Smith, A. C., Thomas, E., Snoswell, C. L., Haydon, H., Mehrotra, A., Clemesen, J., Caffery, L. (2020). Telehealth for global emergencies: Implications for

coronavirus disease 2019 (COVID 19). *Journal of Telemedicine and Telecare*, *26*(5), 309-313. https://doi:10.1177/1357633X20916567

Solivan, A. E., Wallace, M. E., Kaplan, K. C., & Harville, E. W. (2015). Use of a resiliency framework to examine pregnancy and birth outcomes among adolescents: A qualitative study. *Families, Systems & Health: The Journal of Collaborative Family HealthCare*, *33*(4), 349–355. https://doi-org.ezp.waldenulibrary.org/10.1037/fsh0000141

Stavas, N., Shea, J., Keddem, S., Wood, J., Orji, W., Cullen, C., & Scribano, P. (2018). Perceptions of caregivers and adolescents of the use of telemedicine for the child sexual abuse examination. *Child Abuse & Neglect, 85*, 47–57. https://doi-org.ezp.waldenulibrary.org/10.1016/j.chiabu.2018.08.009

Tanner, A. E., Secor-Turner, M., Garwick, A., Sieving, R., & Rush, K. (2012). Engaging vulnerable adolescents in a pregnancy prevention program: Perspectives of prime time staff. *Journal of Pediatric Health Care, 26*(4), 254–265. https://doi-org.ezp.waldenulibrary.org/10.1016/j.pedhc.2010.10.003

Travers, M., O'Uhuru, D., Mueller, T., & Bedell, J. (2019). Implementing adolescent sexual and reproductive health clinical best practice in the Bronx, New York. *Journal of Adolescent Health, 64*(3), 376–381. https://doi-org.ezp.waldenulibrary.org/10.1016/j.jadohealth.2018.09.020

Tschann, M., Salcedo, J., Soon, R., Elia, J., & Kaneshiro, B. (2017). Norms, attitudes, and preferences: Responses to a survey of teens about sexually transmitted infection and pregnancy prevention. *Journal of Pediatric and Adolescent*

Gynecology, 30(1), 29-34. https://doi:10.1016/j.jpag.2016.09.003

Tylee, A., Haller, D. M., Graham, T., Churchill, R., & Sanci, L. A. (2007). Adolescent health 6 - youth-friendly primary-care services: How are we doing and what more needs to be done? *LANCET, 369*(9572), 1565–1573. https://doi-org.ezp.waldenulibrary.org/10.1016/S0140-6736(07)60371-7

Vagle, M. (2018). *Crafting phenomenological research.* New York, NY: Routledge.

Wold, B., & Mittelmark, M. B. (2018). Health-promotion research over three decades: The social-ecological model and challenges in implementation of interventions. *Scandinavian Journal of Public Health, 46*, 20–26. https://doi-org.ezp.waldenulibrary.org/10.1177/1403494817743893

Workman, L. M., Flynn, S., Kenison, K., & Prince, M. (2015). Adoption of an evidence-based teen pregnancy prevention curriculum: A case study in a South Carolina school district. *American Journal of Sexuality Education, 10*(1), 70–85.

World Health Organization. (2020). Making health services adolescent friendly. Retrieved from https://www.who.int/maternal_child_adolescent/documents/adolescent_friendly_services/en/

World Health Organization. (2015). Maternal mortality and morbidity in the United States of America. Retrieved from http://www.who.int/bulletin/volumes/93/3/14-148627/en/

Appendix A: Approval of Use of Research Instrument

Dear Jill, January 7, 2020

Thank you for your message.

It is certainly possible to adapt the questionnaire for use in your study (providing you cite our work!). The main limitation being that the final choice of items in the version we created was adapted for the context of Bosnia & Herzegovina, which may be different from your own context. In which language and on which continent do you aim to use it? Depending on this you may also want to contact colleagues in South-Africa or Sweden who have done similar work (see attached).

Best wishes

Dagmar

Prof. Dagmar M. Haller, MD, PhD

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Appendix B: Research Instrument

1. Demographics

   Age:

   Gender:

   Race:

   Location:

   Years as Primary Care Provider:

   In your residency did you have training specific to adolescent health:

   Familiarity with WHO's domains for adolescent friendly health services:

2. Access (RQ1)

- Can you discuss how you promote the access of adolescent health in the primary care setting?

  Can you discuss how adolescents are accessing health care during this time of social distancing?

3. Parental support (RQ1)

- Can you discuss your feelings about the influences of parental figures on assisting adolescents seeking health care services?

4. Community support (RQ3)

- Can you discuss how the community may influence where adolescents seek health care services?

5. Equality (RQ2)

- What do you feel are the barriers associated with equality in receiving health care in this setting?

6. Respect (RQ3)

- Can you recall your last visit with an adolescent and discuss how you conveyed trust or provided comfort when asking questions that would influence health?

7. Privacy (RQ2)

- Looking back on a visit with an adolescent patient can you discuss how you feel you fostered the idea of privacy?

8. No Judgment (RQ2)

- Looking back on a visit with an adolescent patient can you discuss how you feel you fostered the idea of not placing judgment?

9. Quality (RQ2)

- Can you discuss how you provide quality health services to the adolescent population?

  Can you discuss how you provide quality care with the transition to electronic healthcare visits?

10. Appropriate (RQ2)

- Can you discuss some of the physical aspects of the primary care setting such as office hours, waiting area, educational material?

11. Adolescent friendly health services in relationship to adolescent pregnancy (RQ1, RQ2, RQ3)

- Can you discuss how the domains of adolescent friendly health services discussed above may influence pregnancy in the adolescent population?