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Promoting Awareness of Social Determinants of Health (SDH) When Caring for Sexual and Gender Minority (SGM) Patients: A Quality Improvement Project

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Promoting Awareness of Social Determinants of Health (SDH) When Caring for Sexual and Gender Minority (SGM) Patients: A Quality Improvement Project

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Abstract

It is widely accepted that social determinants are correlated to health disparities. Sexual and gender minorities (SGM), in specific, possess certain social determinants that are unique to them or are exhibited at increased rates in comparison to cisgender and heterosexual individuals. In addition, research has also demonstrated that this population is significantly more vulnerable to several concerning health disparities. For this reason, it is essential that health care providers are knowledgeable on treating SGM patients based on their social determinants in order to encourage a culture of health equity.

In this quality improvement project, and educational webinar was made utilizing material from the National LGBTQIA+ Health Education Center that discussed SGM social determinants. In addition, there was a brief review over the Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences (PRAPARE) tool. A total of 15 participants including medical assistants, nurses, nurse practitioners, and physicians within an urban clinic in South Florida were included. This quality improvement study incorporated convenience sampling and a pre/post-test design in order to assess the effectiveness of education on social determinants via a recorded webinar.

Data analysis revealed that education via a webinar significantly increased perceived knowledge of all participants. In addition, increased accuracy in post-test knowledge-based questions demonstrated that participants were more educated on SGM social determinants and SGM health disparities. This differing education levels of the participants as well as the relatively small sample size could have served as a limitation in assuring the preciseness of the derived data.

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Chapter 1

Introduction/Problem Statement/Significance

Background

There have been various noteworthy milestones in the United States and the inclusivity of sexual and gender minority (SGM) individuals within the last several years. One of the most significant changes was the removal of homosexuality from the Diagnostic and Statistical Manual (DSM) classification of mental disorders in the year 1973. This served as a catalyst for many nation-wide changes with one of the latest being the legalization of same-sex marriage in all 50 states in 2015. Despite the efforts the United States continuously puts forward in assuring the inclusivity of SGM individuals, there remains to be resistance stemming from states that side with more conservative views. In 2022 Florida took ten steps backwards and instilled a bill termed the “Parental Rights in Education” (HB 1069), or unofficially termed by opponents as the “Don’t Say Gay” bill. This bill currently prohibits classroom education or third parties from discussing anything relating to sexual orientation or gender identity from kindergarten to third grade. Recently, De-Santis administration proposed an expansion of the bill that now includes the prohibition of discussing sexual orientation and gender identity for grades 4-12. The instillation of the bill insinuates that discussing SGM issues is an inappropriate subject instead of a fundamental part of education. In consequence, it has the strong potential to create even more bias within Florida as some may question the ethics behind being SGM individuals when the topic cannot even be discussed with children. Other new bills passed that affect sexual and gender minorities are SB 254, which prohibits sexual and gender minority youth from acquiring gender affirming care and HB 1521 which enforces transgender individuals to use restrooms

according to their assigned sex at birth. The installation of these bills may ultimately create the perception that Florida is not a supportive environment for sexual and gender minority individuals.

Heteronormative attitudes are heavily instilled in society, including health care (Enson, 2015, Klittmark et al., 2019). Although it is often done subconsciously, assuming a patient is heterosexual can lead to a dismissal of appropriate health services (Enson, 2015; Klittmark et al., 2019; Utaminsingh et al., 2016). Even the term "heteronormative" can be discerned as being "normal". In that case, SGM individuals can be regarded by society as the latter- abnormal. SGM individuals deviate from these norms concerning sexual orientation, gender identity, or sexual characteristics (Zeeman et al., 2019). This automatically places this population in a position where they are more inclined to experience discrimination and bias. Meyer (2003) proposed the Minority Stress Model that served as an explanatory framework concerning the health risks of the SGM population due to the impact of life stressors. The Minority Stress Model describes a relationship where dominant social values conflict with minority values putting minority individuals in a position of vulnerability. SGM individuals are more prone to experiencing homophobia, violence, sexual stigma, hatred, verbal threats, and must adapt themselves to living with significant stress (Zeeman et al., 2019; Ayhan et al., 2020). The minority stress theory explains how adapting to stressors often leads to risk-taking behaviors as a form of coping. According to the Office of Disease Prevention and Health Promotion (2020), LGBT populations have the highest rates of tobacco, alcohol, and other drug use. They are also more likely to engage in risky sexual behaviors putting gay men at higher risk of HIV and other STDs (ODPHP, 2020).

Furthermore, SGM individuals experience other mental and physical health disparities because of their social determinants. It is reported that LGBT youth are 2-3 times more likely to attempt suicide versus heterosexual counterparts as well as an increased prevalence of homelessness (ODPHP, 2020). Lesbians are more at risk for cervical cancer as they are less likely to seek preventative services and have higher rates of obesity (ODPHP, 2020). Transgender individuals face high rates of STD/STI's, victimization, mental health issues, and suicide (ODPHP, 2020). Mental health issues for transgender individuals can be more severe as they often face more discrimination in comparison to LGB individuals (Ayhan et al., 2020). This is due to their gender identity and the negative consequences that can manifest within their environment for coming out (Ayhan et al., 2020).

Despite the need to seek healthcare, SGM individuals tend to have more difficulty accessing health care resources due to lack of insurance and discriminatory practices (Ayhan et al., 2020). As a result of past discrimination or stigma within the health care field, SGM individuals fear disclosing their gender identity and sexual orientation. This is primarily due to the anticipation of negative consequences that can affect their quality of care (Ayhan et al., 2020). It is evident that there is an ongoing cycle within the SGM community consisting of social and economic factors, health disparities in relation to these factors, barriers in accessing health care to otherwise treat or prevent health disparities, and a lack of perceived acceptance of SGM patients within the healthcare field.

Problem Statement

SGM individuals are facing greater health disparities in contrast to heterosexual counterparts (Heslin & Alfier, 2022; Canady, 2022; Ayhan et al., 2020). This can be largely attributed to the social determinants of health (SDH) that SGM patients are uniquely subjected to

(Downing & Rosenthal, 2020). SGM individuals are subjected to significant stress in relation to discrimination and stigma (Ayhan et al., 2020). The minority stress theory explains how being exposed to excessive stress is correlated to health disparities and contributes largely to health inequality (Meyer, 2003; Zeeman et al., 2019). Despite this well-known and documented phenomenon, there continues to be a lack of perceived knowledge among health care providers and health care professional students on healthcare specific to SGM patients (Nowaskie, 2020; Nowaskie & Patel, 2021; Bolding et al., 2022). The lack of awareness of SDH within SGM patients can lead to an unavailability of appropriate services and contribute to worsening health disparities within this population.

Significance

SDH plays a significant role in impacting the health disparities within the SGM population (Downing & Rosenthal, 2020). SDH are defined by the Office of Disease Prevention and Health Promotion (n.d) as "The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks". In brief, they are non-medical factors that influence health outcomes. Examples are their likelihood of experiencing discrimination, homelessness, financial insecurity, and food insecurity (Heslin & Alfier, 2022; Downing & Rosenthal, 2020; Ayhan et al., 2020). The minority stress model proposes that SGM individuals go through an environmental process that includes various stressors and coping mechanisms that leave lasting impacts on physical and mental health (Meyer, 2003). These coping mechanisms can include engaging in illicit drug use and heavy drinking (Heslin & Alfier, 2022). Coping mechanisms are thought to be a direct result of stressors, such as discrimination and stigma which has been documented in literature to be a common phenomenon for the SGM population (Zeeman et al., 2019; Ayhan et al., 2020). The

prevalence of health-related issues within the SGM community in comparison to heterosexual and cisgender individuals has been noted in various studies (Zeeman et al., 2019; Downing & Rosenthal, 2020; Heslin & Alfier, 2022). Research has shown that SGM individuals are more prone to being subjected to several health comorbidities in contrast to heterosexual and cisgender men or women (Heslin & Alfier, 2022; Canady, 2022; Downing & Rosenthal, 2020). This includes diseases such as cancer, diabetes, heart disease, endometriosis, and obesity (Heslin & Alfier, 2022; Downing et al., 2018; Jackson et al., 2019). SGM youth and adults are also more likely to experience homelessness and have severe suicidal thoughts (Canady, 2022). In addition, SGM adults are less likely to have access to health care (Heslin & Alfier, 2022; Ayhan et al., 2020).

Research has cited the lack of appropriate knowledge and skill set amongst health care providers and health care professional students when treating SGM patients (Nowaskie, 2020; Nowaskie & Patel, 2021; Bolding et al., 2022; Pratt-Chapman & Potter, 2021). This can largely be attributed to lack of formal education specific to caring for SGM patients. This was concluded based on the results from several studies that revealed higher mean scores on knowledge, attitude, and clinical skills when treating SGM patients if the participant had previously received SGM education in the past (Nowaskie & Patel, 2021; Bolding et al., 2022; Pratt-Chapman, 2021). Lack of patient specific education regarding SGM patients can potentially reinforce heteronormative attitudes within the healthcare field. Heteronormativity is defined as the belief that heterosexuality is the only normal form of sexuality, and in turn this signifies that everyone is heterosexual (Barker, 2014). Research has demonstrated that heteronormative attitudes within the healthcare field cause SGM patients to fear disclosing health-relevant information due to fear of discrimination and perceived negative outcomes (Klittmark et al., 2019; Utamsingh et al.,

2016). Sexual and gender minorities (SGM) compromise a large portion of the U.S population, as a recent national survey from the Human Rights Campaign (2021) revealed 8% of the U.S adult population, or at least 20 million adults, consider themselves LGBT. As this population continues to grow and become more prominent, it is evident now more than ever that informed health care providers are in dire need in the efforts of promoting health equity.

Chapter II

Literature Summary and Related Evidence

Literature Search

Databases Used

A Literature review was conducted using various databases. Databases used were CINAHL, Joanna Briggs Institute Evidence-Based Practice, and Pub Med. CINAHL was chosen due to having journals related to nursing, health sciences, consumer health. This database also has over 3,000+ journals to choose from. In addition, there are scholarly journals on clinical trials and research instruments related to my study. Joanna Briggs Institute Evidence-Based Practice was chosen due to having evidence-based practice resources and DNP project being largely consisting of evidence-based practice. Journals within this includes systematic reviews, the highest level in the Hierarchy of Evidence. PubMed was also chosen due to having content from MEDLINE and other National Library of Medicine (NLM) materials.

Limiters & Search Terms

- Limited research based on being from the years 2017-2023.
- Limited research to English language and research done only within the United States, Canada, and Europe

- Search terms: health care professionals or doctor or nurse or health worker, sexual and gender minority, LGBT or lesbian or gay or homosexual or bisexual or transgender or homosexual or queer or sexual minority, social determinants of health or SDOH, social risk factors or social needs or health related social problems

Inclusion and Exclusion Criteria

Inclusion and exclusion for studies reviewed was first decided based on screening of titles for relevant descriptions based on searched terms and by narrowing all studies to only ones published within the years 2017-2023. Those included were those that (1) were in English; (2) considered a Primary study, Systematic Review, or Meta Analysis; (3) published in a peer-reviewed journal; (4) discussed SGM discrimination, SGM social determinants of health, SGM specific health care, SGM health care experience, health care provider education on SGM, assessment or screening of health care provider baseline knowledge on caring for SGM patients; (5) study was done or studies reviewed were within the US, Europe, and Canada; (6) published from the years 2017-2023; (7) sample size larger than 10. Research studies excluded were those that did not meet these criteria. There were 423 records identified through database searching. PubMed resulted with 195, CINAHL with 118, and Joanna-Briggs Institute of Evidence Based Practice with 110. Titles were assessed to see if the study fit the study parameters. Out of the 423 studies evaluated, 380 were excluded based on their title and lack of relevancy. Another 20 were excluded due to being duplicates. Abstracts were evaluated for the 23 articles remaining. After evaluating abstracts, 7 articles were excluded due to not being a primary study, systematic review, or meta-analysis. The full text of the 15 remaining articles were reviewed and included within this literature review.

Social Determinants of Health in Relation to The SGM Population

Social determinants of health are defined by the U.S Department of Health and Human Services as the conditions within one's environment that ultimately affect a wide range of health. Healthy People 2030 divided SDH into five domains: 1) Economic Stability, 2) Education Access and Quality, 3) Health Care Access and Quality, 4) Neighborhood and Built Environment, and 5) Social and Community Context (Office of Disease Prevention and Health Promotion, n.d). Numerous studies have cited the correlation of social determinants of health and health outcomes. While extensive research has been done on social determinants of health and its relation to health outcomes, there is insufficient focus on research that assesses social determinants of health and health disparities specific to sexual and gender minorities. The literature that is available primarily examines economic, health care access and quality, and social and community context domains when exploring social determinants for SGM patients. Due to the prominent gaps in literature, these are the domains that are going to be further analyzed in reference to the SGM population.

Economic Stability

Employment, food insecurity, poverty, and housing instability are all determinants falling under the umbrella of economic stability (Office of Disease Prevention and Health Promotion, n.d). In one systematic review analyzing the effects of poverty in SGM Canadian citizens, it was concluded that SGM individuals that experience poverty were more likely to exhibit substance abuse, worsened mental health, and poor physical health (Kinitz, 2022). Discrimination was also found to be a consistent determinant within SGM experiencing poverty as well (Kinitz, 2022). In another systematic review exploring the factors associated with homelessness and SGM individuals within the U.S, similar themes emerged. SGM individuals experiencing homelessness were unsurprisingly subjected to worsened physical health in contrast to SGM

individuals that were not homeless (Fraser, 2019). In this study, researchers found that SGM homeless population were particularly more at risk for contracting HIV when compared to the homeless cisgender and heterosexual population (Fraser, 2019). This can be partly attributed to SGM homeless population commonly resorting to sex work for survival, such as for financial compensation or shelter (Fraser, 2019).

Healthcare access and quality

Accessing quality health care for SGM patients may prove to be difficult due to discrimination, fear of discrimination, lack of disposable income, and higher rates of being uninsured (Heslin & Alfier, 2022; Brooks et al., 2018; Ayhan, 2020). Heslin & Alfier (2022) utilized three National Center for Health Statistics (NCHS) data systems to acquire data pertaining to health disparities and its relation to sexual orientation. Both gay and bisexual men and women report having less access to healthcare services in comparison to heterosexual people such as dental care, mental health counseling, health insurance, eyeglasses, and affordability of prescription medications (Heslin & Alfier, 2022). In addition to having less access to health care services, there are other barriers that prevent SGM patients from wanting to seek treatment. A systematic review of studies describing SGM health care experiences revealed that stigma and discrimination within the health care field negatively affects the utilization of health care services as well as health care behavior (Ayhan et al., 2020). SGM patients become fearful of revealing their sexual orientation or gender identity in health care settings due to anticipation that it will affect quality of care (Ayhan et al., 2020). This can further lead to a lack of appropriate health-related services (Ayhan et al., 2020). Transgender patients within this study also stated that they experienced physician and verbal violence, as well as refusal to provide treatment during health care encounters (Ayhan et al., 2020)

The quality of healthcare may also be largely diminished due to lack of pertinent health care provider knowledge when treating SGM patients. Research has revealed deficient baseline knowledge in health care providers and health care professional students when assessing or treating SGM patients prior to education (Bolding et al., 2022; Nowaskie, 2020; Banerjee,2019). In one study using five hundred eight-nine occupational therapist practitioners within the U.S, they found that 1-2 hours of LGBT-specific training for continuing education had higher mean scores on LGBT related health care knowledge, in comparison to low baseline scores (Bolding et al., 2022). In another pertinent study consisting of two hundred seventy-five student pharmacists within the U.S, low clinical preparedness was evident in those that did not receive curricular or extracurricular hours on SGM health-related information (Nowaskie & Patel, 2021). In contrast, student pharmacist that cared for 25 or more LGBT patients and received prior education on caring for SGM patients exhibited significantly higher preparedness (Nowaskie & Patel, 2021). Furthermore, a study using 1,253 U.S healthcare providers working in oncology provided evidence indicating poor baseline LGBT health related knowledge amongst the majority of participants (Banerjee, 2019).

Social and Community Context

The social context compromises elements like community cohesion, civic engagement, incarceration and institutionalization, discrimination, and the physical and social environments in which people work or reside (Office of Disease Prevention and Health Promotion, n.d)**.** Substantial research on social determinants of health within the SGM community stems from the minority stress theory which entails the social and community context. These studies highlight discrimination and stigma as being common to encounter for SGM patients which ultimately leads to future negative health outcomes. As previously discussed, Ayhan et al (2020) conducted

a study with the purpose of evaluating the discriminatory experiences of SGM patients. Results derived from this study are both pertinent to social and community context as well as health care access as it demonstrated that discriminatory attitudes are present in both. It can be assumed that discriminatory practices within the health care field stem from the social and community context in which health care providers and systems reside. This study revealed that compared to cisgender and heterosexual patients, SGM patients are less likely to seek health care and more likely to report dissatisfaction with care (Ayhan et al., 2020). Reasons for this can be the discriminatory practices, physical and verbal abuse, and withholding of treatment that SGM participants within this study expressed to be common in health care encounters (Ayhan et al., 2020).

SGM Health Disparities

SGM individuals are facing greater health disparities in contrast to heterosexual and cisgender counterparts (Heslin & Alfier, 2022). The risk factors that SGM individuals commonly face may place them in a position of vulnerability where they are more likely to acquire certain diseases as a manifestation of their social risks. Heslin & Alfier (2022) utilized three National Center for Health Statistics (NCHS) data systems to acquire data pertaining to health disparities and its relation to sexual orientation. LGB people use tobacco, smoke marijuana, drink heavily, and participate in illicit stimulant drug use more frequently than heterosexual individuals (Heslin & Alfier, 2022). Gay (10.5%) and bisexual (10.7%) men reported more frequent illicit drug use within the last 12 months than heterosexual men (5.7%) (Heslin & Alfier, 2022). Similarly, heterosexual women (2.2%) reported less illicit drug use than lesbian women (3.7%) and even more so bisexual women (8.3%) (Heslin & Alfier, 2022). Both gay and bisexual men and women report having less access to health care services in comparison to heterosexual people such as

dental care, mental health counseling, health insurance, eyeglasses, and affordability of prescription medications (Heslin & Alfier, 2022).

The risk of being a gay or bisexual man and risk for HIV is discussed in a multitude of different platforms, there is however little research on other comorbidities that inflict SGM patients at higher rates than heterosexual counterparts. For example, heterosexual men (8.1%) are less likely to have a lifetime diagnosis of cancer versus gay men (12.1%) (Heslin & Alfier, 2022). Lesbian and bisexual women exhibit higher prevalence for lifetime arthritis, asthma, hypertension, diabetes, and cancer (Heslin & Alfier, 2022). The increased prevalence of hypertension, diabetes, and heart disease in lesbian and bisexual women can be largely attributed to being more at risk for being overweight or obese. Lesbian and bisexual women are also more likely to be overweight and obese with higher average body weight, waist circumference and BMI than heterosexual women (Heslin & Alfier, 2022). Heterosexual women (58.2%) and bisexual women (55.6%) were also more likely to receive Papanicolaou testing and STD testing than lesbian women (40.1%).

Another pertinent study revealed data regarding chronic disease and transgender individuals. This study utilized data from the 2014-2016 Behavioral Risk Factor Surveillance system to reveal important health-related information among transgender women, transgender men, and gender nonconforming individuals (Downing et al., 2018). Statistics revealed that transgender groups experienced worse mental health outcomes and more disabilities (Downing et al., 2018). Higher odds of experiencing multiple chronic conditions, having a poorer quality of life, and experiencing disability were also found in gender-nonconforming groups in comparison to cisgender populations (Downing et al., 2018). In addition, transgender women were more likely to develop cardiovascular disease compared to cisgender women and men (Downing et al.,

2018). While this study utilizes information that can be discerned as outdated, there is a gap in literature with studies that discuss comorbidities solely present within the transgender community.

Recommendation on How to Address SDH

The Health and Public Policy Committee of American College of Physicians (ACP) published a paper in 2018 which entailed a thorough literature review in order to determine the best recommendations in addressing social determinants of health. Their second recommendation stated "...that social determinant of health and the underlying individual, community, and systematic issues, related to health inequities be integrated into medical education at all levels." (Daniel et al., 2018). Furthermore, the Health and Public Policy Committee of ACP recommends that health care professionals become knowledgeable on screening and identifying social determinants of health as well as the approaches one may take to treat patients with health disparities related to their social determinants. Daniel et al. (2018) discusses how health care is steering away from charging for the number of services provided and instead focused more on putting a premium on the actual quality of care. In order to achieve this, medical professionals will need to consider the social determinants that affect patients' physical and mental health as well as their continued wellness. Barriers to adherence may include social determinants such as homelessness, loss of occupation, or food insecurity (Daniel et al., 2018). Health care providers that do not have a broad understanding of social determinants may not be readily equipped to fully comprehend why these patients are unable to adhere to treatment plan (Daniel al., 2018). One study that was cited to support this recommendation revealed that 85% of primary care physicians or pediatricians hold the belief that social needs that are unmet have the strong possibility of leading to poor health outcomes (Fenton, 2011). However, four out of five of the

physician participants also revealed that they are not confident in their skills to meet the social needs of patients under their care (Fenton, 2011).

ACP (2018) states that health care providers that receive ongoing education on health inequalities and health outcomes linked to social determinants of health are better able to assess and treat patients with them. This is further supported by a 9-month study termed the Health Scholars Program in which a community health center in Philadelphia had medical students receive a course instructed by volunteer medical and public health faculty (O'Brien et al., 2014). Within this piloted program, medical students were required to develop, implement, and evaluate an intervention to address a community-defined need. Although it is uncertain to what extent participants followed through with concrete results, they did express high levels of overall satisfaction with the program (O'Brien et al., 2014). In addition, participants claimed that the program boosted their willingness to serve vulnerable communities (O'Brien et al., 2014). In a similar study not cited in support of this recommendation, researchers evaluated physician rates for responding and identifying SDH in patient encounters both before and after having been provided audit reports on observed SDH practices and education material. This was assessed by using actors as patients with already fabricated scenarios (Brammer et al., 2022). The physicians were not informed on which patients were or were not actors. This study demonstrated that prior to intervention social needs were not addressed in more than half of the 108 visits in which actors served as patients (Brammer et al., 2022). After the intervention there was significant improvement in both assessing and addressing social needs during patient care (Brammer et al., 2022).

Webinar as Health Care Provider Education

Although the studies supporting ACP (2018) recommendations reveal that health care provider educating on SDH leads to better awareness and motive in addressing SDH, the educational interventions used can also be time-consuming. Interventions that are time consuming are unrealistic to implement in health care sites, such as North Dade Center, where there is a continuous influx of patients. After doing thorough research on education modalities that are both effective and convenient for participants, literature reveals online-learning methods to be effective in health care provider education. Kronman et al. (2020) utilized learning modules containing webinars to pediatricians on guidelines relating to treating respiratory illness. The purpose of this study was to reduce antibiotic prescriptions in outpatient pediatric patients with acute respiratory tract infections (ARTIs) (Kroman et al., 2020). This study demonstrated reduced antibiotic prescribing during outpatient ARTI visits after intervention (Kronman et al., 2020).

Ebner and Gegenfurtner (2019) conducted a meta-analysis and systematic review on 7 articles that utilize webinars to educate health care professionals and health care professional students. This was done to determine the effectiveness of webinars in promoting student achievement. This study indicates that webinars are more effective in promoting knowledge retention than other learning modalities such as asynchronous learning, and face-to-face classrooms (Ebner & Gegenfurtner, 2019). The comparison of webinar effectiveness and face-to-face teaching is comparable, which can be concluded as an addition benefit (Ebner & Gegenfurtner, 2019). The flexibility that online teaching modalities offer allows participants to attend seminars remotely in the location of their choice and without the cost of travel.

In another study contrasting in-person learning versus webinars on the delivery of an immunization quality improvement program, both in-person learning, and webinars had similar

outcomes (Calo et al., 2019). Clinics that participated exhibited similar levels of participation, confidence, and satisfaction (Calo et al., 2019). In addition, webinars were far less costly than in person-consultations (Calo et al., 2019).

Students and lecturers have both expressed their satisfaction with the ease of conducting and receiving education through webinars (Ebner & Gegenfurtner, 2019). Webinars are conducted live, which can be considered an advantage. It allows participants and educators to converse in real time, similarly, to being in person. Unfortunately, a live webinar as an educational tool can prove to be ineffective if participants are not able to meet at the required time. For this reason, a recorded webinar will be made to all participants in this quality improvement project who are unable to attend the live session.

Social Determinants of Health Screening Tools

There are currently no screening tools available specific to SGM populations. For this reason, education entailing evidence-based material on SDH related to SGM individuals from the National LGBTQIA+ Education Center will be utilized. In addition, the use of a screening tool for SDH will be incorporated within the education. While there are several social determinant screening tools, the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) was chosen due to being evidence-based and stakeholder driven (National Association of Community Health Centers, 2022). This tool also aligns with national initiatives prioritizing social determinants of health, in reference to Healthy People 2030 goals (NACHC, 2022). In addition, PRAPARE can be concluded as reliable as it is widely used and implemented in organizations within every state and even different countries (NACHC, 2022)

Chapter III

Purpose/PICO Clinical Question/Objectives

Purpose

The purpose of this quality improvement project is to create awareness as well as guide health care providers on how to care for SGM patients in relation to their SDH. As a result, health care providers can assess SGM patients in a way that is both beneficial and effective while tailoring care based on their unique needs. In addition, this project serves to encourage a culture of healthy equity promotion among health care providers. This project is also purposely being done using healthcare providers within the state of Florida at an urban clinic due to Florida's social climate and lack of legal support for SGM citizens. It will assess Florida healthcare providers baseline comfort levels when treating SGM patients and reveal the need or lack of need for education on treating SGM patients based on their SDH.

PICO Question

(P) The population will be health care providers that participates in patient care including medical assistants, nurses, nurse practitioners, physician assistants, and physician working within primary care and urgent care specialties in the North Dade Center. (I) The intervention will be a recorded webinar session that will be done remotely and educate on social determinants of health (SDH) within sexual and gender minority (SGM) individuals. (C) The effects of the intervention will be compared to baseline knowledge prior to the intervention. (O) The intended outcome will be increased awareness and ability to assess for SDH when treating SGM patients. (T) The project will consist of a pre-test/post-test format with a recorded webinar entailing the education and should take 40 minutes to complete.

Project Objectives

For the purpose of this DNP quality improvement project and based on the PICO question, the following project objectives were identified

- Develop a format for health care provider education on SDH within the SGM population, as well as a pre/post survey to assess baseline knowledge and effectiveness of intervention.
- Evaluate health care provider baseline knowledge prior to intervention based on results obtained from pre-survey
- Provide and assure all project participants received education intervention
- Evaluate effectiveness of intervention based on results obtained from post-survey

Organizational Assessment and SWAT Analysis

Organizational Assessment

The goal of this project is to create awareness on social determinants of health (SDH) specific to the sexual and gender minority (SGM) population amongst health care provider participants (nurse practitioners, physician assistants, physicians, nurses, and medical assistants), as well as guide health care providers on how to care for SGM patients in relation to their SDH. As a result, health care providers can assess SGM patients in a way that is both beneficial and effective while tailoring care based on their social needs. In addition, this project serves in instilling effort within health care providers in promoting health equity.

These goals will be accomplished at the North Dade Health Center, a health care center incorporated within the Jackson Health System (JHS). This site entails several specialties including primary care, geriatrics, gynecology, and pediatrics. The intervention will only be available to providers that serve adult populations and therefore will not include pediatric providers. JHS is a nonprofit public safety-net system which offers health care to all patients regardless of financial status. JHS highlight their mission as one to provide high standard of quality care for all Miami-Dade County residents with a vision of being both nationally and

internationally recognized (Jackson Health System, n.d). Their values emphasize providing high quality and compassionate care with both respect, expertise, and accountability (Jackson Health System, n.d). In order to achieve its mission, JHS believes in the importance of identifying and responding to the unique needs of patients (Jackson Health System n.d). JHS has been named the LBTQ Health Leader for 8 years through the recognition of the Human Rights Campaign (HRC) Foundation (Jackson Health System, n.d). A core value in JHS is “culture of inclusion”. JHS supports this through the installation of several policies and education materials. According to the HRC Foundation’s report, JHS policies promote LGBTQ+ inclusivity by prohibiting patient, visitor, and employment discrimination (Jackson Health System, n.d). In addition, they encourage a welcoming environment for SGM patients through facility posters, and the availability of pertinent education materials for employees that can be utilized at their discretion These are a few ways in which JHS strives for health equity within the SGM population.

Healthy People 2030 have cited SDH as being heavily linked to impacting one's health. Improving health equity is stated to be one of their latest public health priorities (Office of Disease Prevention and Health Promotion, n.d). Healthy People 2030 recommends addressing SDH as an effort in improving health equity (Office of Disease Prevention and Health Promotion, n.d). According to the literature, the SGM population is more likely to experience social determinants of health (SDH) such as homelessness, food insecurity, financial insecurity, violence, lack of health care access and discrimination than heterosexual and cisgender counterparts (Heslin & Alfier, 2022; Clark, 2021; Badgett, 2021; Downing et al., 2018; Wilson et al., 2020). It can be assumed that the prevalence of SDOH experienced by SGM individuals is the reason for their increasingly high health disparities. This is demonstrated by reflecting on the literature that describes the percentage of SGM people acquiring several health comorbidities

such as HIV, cancer, arthritis, diabetes, cardiac artery disease, depression, and suicide at significantly higher rates than the heterosexual and cisgender population (Heslin & Alfier, 2022; Jackson et al., 2021; Herman et al., 2019; Romero et al., 2019). Currently, there is no standardized screening tool within JHS primary care system to assess for SDOH in SGM patients. In addition, there is no enforced or standardized employee-based education on healthcare specific to SGM patients. To address these gaps, interventions need to be put forth towards promoting knowledge and screening of SDOH specific to SGM patients through health care provider education.

Organizational SWOT Analysis

A SWOT analysis is conducted in order to address the internal strengths, weaknesses, external opportunities and threats that exist within an organization (Benzaghata et al., 2021). It was one of the key resources that can be utilized for information on strategic planning (Benzaghata et al., 2021). In addition, organizational leaders can use the SWOT method to overcome organizational threats as well as identify core competencies pertinent to the organization (Benzaghata et al., 2021). A SWOT analysis values the importance of internal and external aspects to achieve organizational, or business goals (Benzaghata et al., 2021). The internal aspects are those that are within control of the organization, whereas the external factors are out of the organization's control (Benzaghata et al., 2021).

Strengths

North Dade Center strengths include that they have already made huge efforts in addressing health equity within the SGM population. The stakeholders within this site have demonstrated strong support for the intervention. Another strength is their diverse patient population. North Dade Center resides in Opa-Locka, a city within Miami Dade County. This

city is comprised of 57.5% black or African American, 42.4% Hispanic or Latino, and 3.3% white that is Non-Hispanic or Latino (U.S Census Bureau, 2022). Employees within this site already have pre-disposed experience with addressing social determinants of health with patients, especially considering they are a non-profit and are exposed to patients with different economic backgrounds. This is evident when reviewing the income and poverty within this population, which reveals that 35.4% of Opa-Locka residents are in poverty (U.S Census Bureau, 2022). Due to their diverse patient population, health care providers within this site have substantial experience with accommodating unique needs and making the appropriate referrals.

Weaknesses

Within this facility, there is little to no time for all health care provider participants to unanimously attend a 1–2-hour class due to time constraints regarding patient care. Employees would have to complete education remotely and there may be budgeting concerns due to having to compensate for time invested, specifically because many employees have an annual salary versus hourly. In addition, perceived lack of interest for change can result in poor-buy in for those that do not view the issue as being noteworthy.

Currently, the North Dade Center does not inquire about sexual orientation with patients during the intake process, or during routine assessments. If it is assessed, it is not documented. Lack of documentation of sexual orientation will lead to having to question the patient with each encounter or being forgotten during assessment. Literature discusses that SGM patients are unlikely to disclose their sexual orientation due to fear of discriminatory treatment (Ahyan et al., 2020). Not asking can also be discerned as heteronormative practices, which once again leads to lack of disclosure (Klittmark, 2019; Utamsingh et al., 2016).

Opportunities

According to the Human Rights Campaign (2021), approximately 8%, or 20 million adults within the US identify themselves as lesbian, gay, bisexual, or transgender. Florida compromises one out of ten states that have the largest population of SGM citizens according to the survey (HRC, 2021). This insinuates that encountering a SGM patient is more likely now than ever for health care providers. This brings to attention the opportunity to instill interventions that will allow health care providers to become more knowledgeable in assessing SGM patients to reduce health disparities. Instilling this intervention may allow participants to be better prepared when caring for SGM patients which can eventually lead to better health outcomes, reduced health care costs, and ultimately promote health equity.

Threats

Promoting health equity within the SGM population has been a noteworthy topic, but research continuously demonstrates that health disparities for SGM individuals remain highly prevalent (Heslin & Alfier, 2022; Zeeman et al., 2019). Health care outcomes of SGM patients are not documented within this practice site, but it can be assumed that SGM patients have similar health disparities. SGM individuals are subjected to statistically more significant social determinants of health that are correlated to health disparities (Katz et al., 2018; Downing & Rosenthal, 2020). As health care providers have a direct influence of health outcomes for SGM patients, it is essential that they are equipped for such circumstances. JHS states that their mission is to provide patient centered care to every patient seen. Without the appropriate education, it may be unlikely that health care providers will be able to accommodate unique needs. This can lead to worsening health disparities in SGM patients within this practice site, further health care costs, and may serve as a barrier in achieving their mission statement.

Chapter IV

Definition of Terms

Sexual minority: Someone who identifies as gay, lesbian, or bisexual, or who is attracted to or has sexual contact with another person who is their own gender (CDC, 2022)

Gender minority: Individuals whose gender identity (man, women, other) or expression (masculine, feminine, other) is different from their sex (male, female) assigned at birth (CDC, 2022)

LGBTQ: Acronym that refers to the lesbian, gay, bisexual, transgender, and queer/questioning community (CDC, 2022)

Social Determinants: The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks (Office of Disease Prevention and Health Promotion, n.d)

Chapter V

Conceptual Underpinning and Theoretical Framework of the Project

A theoretical framework is used as the "blueprint" for the entire dissertation inquiry (Grant, 2014). When seeking a theoretical framework, it is done so knowing that the framework should serve as a guide in supporting the structure of the study. If a theoretical framework is not utilized, then the vision and structure of the study remains ambiguous (Grant, 2014). An example is how a house is unable to be constructed without a blueprint. However, a research plan that entails a theoretical framework has a much more organized and efficient flow entailed in how its structured (Grant, 2014).

Theory Overview: Understanding Social Determinants

A paradigm was established by Finn Diderichsen et al. (2001) to describe the mechanisms that cause health disparities within and between social groups. In order to address such socioeconomic and health imbalances, this model can guide future research and policy initiatives. The Diderichsen et al. (2001) model contrast to other social determinant models in that it contends that understanding "upstream" societal causes that have an impact on health in addition to those downstream concerns, such as biology and the distribution of clinical services, is crucial to improving health outcomes and reducing health inequities. Individual attributes that contribute to health risk such as age, sex, dietary habits, smoking, alcohol intake, weight, and blood pressure are associated with an individual's social position and social context (Diderichsen et al., 2001). Social contexts are measured through factors such as one's place of residence (urban or rural), work environment, and economic policies of society (Diderichsen et al., 2001). In contrast, social positions are measured via levels of education, occupation, and income (Diderichsen et al., 2001). Creating effective interventions to address health inequities is dependent on being aware of the pathways in which social contact and position correlate to health outcomes and social consequence of disease (Diderichsen et al., 2001). When these systems are disrupted, policymakers can provide policy entry points that will improve health outcomes (Diderichsen et al., 2001). The four pathways that ultimately contribute to undesirable health outcomes are social stratification, differential exposure, differential vulnerability, as well as the social consequences of ill health (Diderichsen et al., 2001).

Social Stratification

Social context is defined by Diderichsen et al. (2001) as a phrase to refer to factors within society that are unable to be measured within the individual level. There are four reasons within social context that correlate to health. First are the risks for illness which are measured within the

societal level (Diderichsen et al., 2001). Examples are the average income of certain populations, or unemployment rates (Diderichsen et al., 2001). The second reason is relating to conceptuality and regarding populations as a social system rather than a collection of independent individuals (Diderichsen et al., 2001). This allows for correlations to be made in respect to certain populations and their susceptibility of specific health outcomes, exposures, and social behaviors (Diderichsen et al., 2001). Third discusses how the social environment, such as neighborhoods and work industries, may contribute to disease and injury (Diderichsen et al., 2001). Finally, the fourth discusses how social context includes central engines within society that determine the distribution of power, wealth, and risk (Diderichsen et al., 2001). Labor policies, gender norms, political representation, and the educational system are a few examples (Diderichsen et al., 2001). In contrast, social position is described as an individual's social standing or “place” in which they live (Diderichsen et al., 2001). Social positions are derived from social context and are dependent on societies' economic or industrial structures (Diderichsen et al., 2001). Social context can promote health equity in ways such as providing universal health care for their citizens (Diderichsen et al., 2001). However, it may also have the opposite effect depending on whether social benefits are provided to those without citizenship (Diderichsen et al., 2001). In this example, the social position of a minority ethnic group that does not have current citizenship is more likely to not receive necessary health care services (Diderichsen et al., 2001).

Differential Exposure

Social stratification explains that due to an individual's socioeconomic situation, they are more exposed to a variety of risk factors dependent on their social status (Diderichsen et al., 2001). This then affects the prevalence of health-related consequences that certain social groups may experience within their lifetime and how they respond (Diderichsen et al., 2001).

Differential exposure is the second mechanism that links social position with health outcomes (Diderichsen et al., 2001). This refers to the idea that each social position is exposed to specific patterns of health risk (Diderichsen et al., 2001). Advantages and disadvantages accumulating over the course of a lifetime are an essential concept within differential exposure (Diderichsen et al., 2001). It is thought that an accumulation of health risks increases the likelihood of adverse health effects (Diderichsen et al., 2001). An example would be an unskilled service worker being more prone to earning low income and a lack of control over their work which may place barriers in choosing healthy lifestyles (Diderichsen et al., 2001). Furthermore, if the parents of this individual were also of low socioeconomic status, then this individual could have further been exposed to food insecurity (Diderichsen et al., 2001). This insinuates that differential exposure can be seen even in the early stages of life and can contribute to a life course of poorer health outcomes (Diderichsen et al., 2001).

Differential Vulnerability

Even when a risk factor is present amongst a social group, this does not signify that it will present the same level of risk for all individuals (Diderichsen et al., 2001). Some individuals or social groups may present with underlying differences that despite possessing the same risk factor as other social groups, their differences make them especially vulnerable to threats (Diderichsen et al., 2001). This susceptibility is known as differential vulnerability (Diderichsen et al., 2001). An example would be the diagnosis of diabetes in a man that is a CEO of a thriving business versus an individual working as a school janitor. Due to higher socioeconomic status, the CEO is more likely to have the finances to seek health care and keep up with health care treatment in a timelier manner. The janitor, in contrast, may face financial barriers that prevent him from getting prompt care. In addition, the janitor may also be more likely to consume

cheaper foods that do not align with a diabetic diet. This puts the janitor at risk for uncontrolled diabetes and future complications.

Differential Social (and Economic) Consequences of Ill Health

Social stratification is responsible for differential consequences due to the accumulation of health risks over a period (Diderichsen et al., 2001). In addition to the effect on one's health, acquiring a disease poses other social risks. Differential social consequences are defined as the impact a health event has on an individual or family's socioeconomic circumstances (Diderichsen et al., 2001). Events such as the loss of a limb make it impossible for an individual to maintain their occupation if their occupation involves manual labor (Diderichsen et al., 2001). In a system that does not provide universal health care, it would be difficult for this individual to seek out treatment. The inability to cope with costs may lead to significant debt or passing on financial obligations to family members (Diderichsen et al., 2001).

Theory/Clinical Fit: Understanding Social Determinants

Diderichsen et al. (2001) framework discusses the methods in which health inequities are generated amongst social groups. This model argues that in order to address health inequities it is important to understand the way in which societal mechanisms impact health (Diderichsen et al., 2001). As this project involves promoting health care provider knowledge on social determinants specific to SGM patients, this framework makes an optimal tool to reflect on when discussing how health inequities are generated within this population. The four mechanisms discussed that lead to inequitable health outcomes are social stratification, differential exposure, differential vulnerability, and social consequences (Diderichsen et al., 2001). These are all important concepts when reflection on the reasoning as to why certain social determinants impact SGM individuals more often as when more negative outcomes than heterosexual counterparts. Social

stratification, for example, discusses social context and social position within society (Diderichsen et al., 2001). SGM populations experience a unique social position within society where they are regarded as being “different”. Discrimination and bias can stem from being an outlier which may make it more difficult for SGM persons to succeed in occupations or lifegoals versus an individual that holds characteristics more agreeable with society. Due to their social position, SGM individuals may be more likely to be exposed to risk factors associated with their socioeconomic circumstances. This phenomenon is known as differential exposure (Diderichsen et al., 2001). For example, research has demonstrated that SGM individuals are more likely to experience homelessness (Wilson et al., 2020). Despite homelessness being heavily correlated to many health disparities, SGM individuals are more at risk for acquiring HIV than homeless individuals that are heterosexual (Fraser, 2019). This is an example of differential vulnerability.

When discussing social determinants unique to the SGM population, it is important to mention how acquiring certain social risks have different implications depending on social position and social context (Diderichsen, 2001). In addition to the health risks related to possessing certain social consequences, there are other negative consequences that can arise. This is further discussed through the final mechanism, differential consequences. Social consequences for SGM individuals can have more detrimental effects than other privileged groups (Diderichsen, 2001). If an SGM patient is unable to work due to chronic disease, this can lead to more economic distress in more privileged social groups that are better able to absorb the costs. SGM patients are more likely to be uninsured and thus can accumulate further health care costs (Clark et al., 2021; Heslin & Alfier, 2002). This makes the disadvantages of acquiring a chronic disease for SGM individuals more severe, as it is more likely they do not have the appropriate resources to cope with social consequences.

Chapter VI Methodology

Project Design

This is a quality improvement project that incorporates convenience sampling and pre/post-test design in order to assess the effectiveness of education on social determinants via a recorded webinar.

Setting

The quality improvement project will take place within the North Dade Center in Miami, Florida. This health care site is part of Jackson Health System and entails specialties such as primary care, urgent care, pediatrics, and gynecology. Patients served within this site have varying ethnicities and economic backgrounds.

Participants

The participants that will receive the intervention are nurse practitioners, physician assistants, physicians, nurses, and medical assistants. Participants will be those working in urgent care or primary care offices within the North Dade Center. Nurses and medical assistants will be included due to their role in gathering patient specific information during the intake process. The number of participants is approximately 15.

Intervention

A hyperlink to a Qualtrics pre-test survey was sent to participants electronically via email. An education intervention in the form of a webinar was provided through a hyperlink after completion of the pre-test survey. The educational intervention 17-minutes long. It consisted of material from the National LGBTQIA+ Education center that discussed SGM and their SDH, as well as a brief teaching on the utilization of the PRAPARE tool. A separate email containing the link to the post-test was sent to participants. Pre/post-test questions consisted of three sections

being analyzed including perceived knowledge, knowledge on SGM health disparities, and knowledge on SGM social determinants.

Instruments

There is no published instrument available to assess health care providers on their comfort or confidence levels when treating sexual and gender minorities based on their social determinants. Questions to assess for perceived knowledge were determined by the DNP candidate. In addition, knowledge-based questions pertaining to SGM health disparities and social determinants were derived from the material discussed in the education intervention.

Data Collection

Data collection will be handled by the principal investigator and gathered electronically. Data collection will be derived from participant responses during the pre- and post-test survey through Qualtrics. The survey was created using Qualtrics to facilitate and analyze data collection. Participants will receive an email with a link that will lead to the pre-test survey to gather baseline data. After finishing the educational intervention, they will also get a link to the post-test survey.

Data Management and Analysis Plan

Healthcare professional participants will first complete a pre-survey to assess baseline knowledge and then proceed to watch a recorded educational webinar. Afterwards, participants will complete the post-survey. To preserve the security and privacy of the survey participants' data, the data will be saved on Qualtrics software, which has a password protection feature. Encryption, redundancy, and ongoing network monitoring are among the enterprise-grade security technologies that Qualtrics claims are used to protect all data. After five years, all information gathered for the study will be destroyed.

Data acquired will be analyzed using SPSS. Descriptive statistical analysis will be utilized for all quantitative data to describe and evaluate the relationship of the effectiveness of the intervention based on pre-test and post-test results. The paired T-test will be performed by the DNP candidate to determine whether there was statistical significance between the knowledge mean scores before and after the intervention.

Protection of Human Subjects

Prior to starting the QI project, Institutional Review Board (IRB) approval was requested. An information letter outlining the project's essential details, including eligibility, what participants were expected to accomplish, how their information and identities would be protected, and the advantages and risks of participation will be provided electronically to every person who is recruited for the QI project. Participants accepted will only be those of voluntary involvement, and members will be allowed to leave at any time without repercussion**.** Potential volunteers will be given an explanation of the information and will have any questions they may have answered. Participants' anonymity and privacy are also guaranteed. A password-secured laptop will be used to secure participant data and is only accessible by the DNP candidate. No identifiable information will be provided during presentations or in the case of publication.

Chapter VII

Results

Sample Characteristics

Table 1 discusses the sample characteristics based on sex, age, ethnicity, and position. The sample size is analyzed based on the frequency and percentage analysis.

Table 1: Sample Demographic Characteristics

	Frequency	%
Sex		
Male	2	14.3
Female	12	85.7
Age		
20-30	5	35.7
30-40	3	21.4
40-50	3	21.4
50+	3	21.4
Ethnicity		
White	11	78.6
Black	3	21.4
Position		
Registered Nurse (RN)	4	28.6
APRN	3	21.4
Physician	4	28.6
Medical Technician	3	21.4

Regarding gender, the sample consists of 14.3% males (*n* = 2) and 85.7% females (*n* = 12). The age distribution shows 35.7% of individuals aged 20-30, 21.4% each in the age groups 30-40, 40-50, and 50+. Ethnicity data reveals that 78.6% of participants are White (*n* = 11), while 21.4% are Black (*n* = 3). The distribution by position displays 28.6% Registered Nurses (RN) and Physicians each, along with 21.4% Advanced Practice Registered Nurses (APRN) and Medical Technicians.

Pre- and Post-Intervention Results: Perceived Knowledge

The table 2 discusses the results of descriptive statistics of the average perceived knowledge (pre) and average perceived knowledge (post). The data was based on the 1=strongly agree and 5= strongly disagree.

Table 2: Perceived Knowledge

	N	Mean	Std. Deviation
Perceived Knowledge (Pre)	14	3.38	0.90
Perceived Knowledge (Post)	11	1.82	0.90

Before the intervention, the average perceived knowledge was 3.38 (SD = 0.90) among 14 participants. After the intervention, it decreased to 1.82 (SD = 0.90) among 11 participants. The after score is closed to strongly agree which indicates a significant improvement in perceived knowledge.

Pre- and Post-Intervention Results: Assessment of Knowledge on SGM Health Disparities

The table 3 discusses the results of Pre-Test and Post-Test with a % and change in the percentage.

Table 3: Pre-Test and Post-Test of Assessment of Knowledge on SGM Health Disparities

	Pre-Test %	**Post-Test %**
Health disparities are linked to:		
social and economic disadvantage	42.9%	8.33%
mental health	7.1%	0%
Sexual orientation	7.1%	0%
All of the Above	42.9%	91.67%
Lesbian and bisexual women are more at risk for		
Cervical Cancer	42.9%	8.33%
Breast cancer	14.3%	16.67%
Obesity	14.3%	0
All of the Above	28.6%	75%
LGB people use tobacco, smoke marijuana, drink heavily, and participate in illicit stimulant drug at equal rates than heterosexual individuals		
True	28.6%	16.67%
False	71.4%	83.33%
Heterosexual men are at higher risk of acquiring cancer than gay men		

True	28.6%	25%
False	71.4%	75%
Heterosexual women are more likely to receive Papanicolaou testing and STD testing than lesbian women		
True	57.1%	83.33%
False	42.9%	16.67%
In comparison to cisgender populations, transgender individuals are more likely to experience chronic disease and disabilities		
True	78.6%	100%
False	21.4%	0%
Transgender women are more likely to develop cardiovascular disease than cisgender women		
True	64.3%	91.67%
False	35.7%	8.33%

Table 3 discusses pre-test and post-test results assessing knowledge of Sexual and Gender Minority (SGM) health disparities. Before the intervention, only 8.33% of participants correctly associated social and economic disadvantage with health disparities, while this knowledge significantly increased to 91.67% post-intervention. Similarly, awareness that lesbian and bisexual women are at risk for various health issues improved from 28.6% to 75%. There was increased recognition of disparities affecting SGM individuals, such as tobacco and drug use. Additionally, participants had better understand of transgender health disparities, including chronic diseases. These findings highlight the effectiveness of the intervention to enhance the knowledge about SGM health disparities.

Pre- and Post-Intervention Results: Assessment of Knowledge on Social Determinants specific to SGM

Table 4 discusses the assessment of knowledge on the social determinants linked to SGM for both pre and post results.

Table 4: Assessment of Knowledge on Social Determinants specific to SGM

	Pre-Test %	**Post-Test %**
SGM patients do not disclose their sexual orientation due to		
valuing their privacy		
fear of discriminatory treatment	64.3%	100%
does not view this information as useful to their treatment	35.7%	
SGM individuals do not seek health care due to:		
being uninsured	0%	0%
fear of discrimination	28.6%	25%
medical mistrust	28.6%	0%
All of the Above	42.9%	75%
Discrimination has been shown to affect		
Physical Wellbeing		
Mental Wellbeing	7.1%	
Both	92.9%	100%
Social determinants, such as homelessness, hold the same consequences for both heterosexual and SGM individuals		
True	35.7%	25%
False	64.3%	75%
Bisexual men are wealthier than heterosexual and cisgender men		
True	28.6%	16.67%
False	71.4%	83.33%
SGM individuals no longer experience discrimination within the health care field		

True	7.1%	0%
False	92.9%	100%
Florida is one of the few states that adopt laws and policies to protect SGM individuals		
True	50%	16.67%
False	50%	83.33%
The minority stress theory can affect anyone		
True	92.9%	41.67%
False	7.1%	58.33%
Health care reform provided every SGM with health care insurance		
True	14.3%	16.67%
False	85.7%	83.33%

Pre-test results showed that 64.3% believed SGM patients didn't disclose their sexual orientation due to privacy concerns, but post-test results saw 100% recognizing fear of discriminatory treatment as a key factor. Participants also realized that SGM individuals avoid healthcare due to various factors, with 75% acknowledging the combination of being uninsured, fearing discrimination, and medical mistrust. The majority recognized that discrimination affects both physical and mental wellbeing, while understanding that social determinants like homelessness have different consequences. Overall, the intervention improved knowledge about SGM-specific social determinants and disparities.

Hypotheses Testing

H1: Education has a positive impact on ***perceived knowledge****,* ***knowledge on SGM health disparities****, and* ***knowledge on social determinants*** *of health specific to SGM*

Table 5 shows the Chi-Square test which is used to compare the results between two groups. It indicates the relationship between Education and Perceived Knowledge.

Table 5: Education vs Perceived Knowledge

	Pre		**Post**	
	Yes	**No**	**Yes**	**No**
Strongly Agree	0%	0%	58.33%	0%
Somehow Agree	64.28%	0%	16.67%	0%
Neither Agree Not Disagree	35.72%	0%	0%	8.33%
Somehow Disagree	0%	21.43%	0%	8.33%
Strongly Disagree	0%	16.67%	0%	0%
Significance	.004*		.003*	

Table 6 discusses the education vs Knowledge on SGM Health Disparities in both pre-intervention and post-intervention.

Table 6: Education vs Knowledge on SGM Health Disparities

	Pre		**Post**	
	Yes	**No**	**Yes**	**No**
True	57.14%	0%	75%	8.33%
False	0%	42.86%	0%	16.67%
Significance	.002*		0.036*	

Table 7 discusses the education vs Knowledge on Social Determinants specific to SGM in both pre-intervention and post-intervention.

Table 7: Education vs Knowledge on Social Determinants specific to SGM

	Pre		**Post**	
	Yes	**No**	**Yes**	**No**
True	28.57%	0%	16.67%	0%
False	35.71%	35.71%	58.33%	25%
Significance	.022*		0.219*	

Table 5 discusses a significant relationship between education and perceived knowledge ($p = 0.004^*$) in the post-intervention phase. A higher level of education is associated with a higher percentage of participants strongly agreeing with statements related to perceived knowledge.

In Table 6, education also shows a significant influence on knowledge about SGM health disparities. There is a higher education level correlating with increased knowledge ($p = 0.002^*$). This effect is can be seen in both pre and post-intervention phases.

However, in Table 7, the significance is not achieved in the post-intervention phase for knowledge on social determinants specific to SGM ($p = 0.219^*$), although it was significant in the pre-intervention phase ($p = 0.022^*$). This suggests that education may not have a consistent impact on knowledge related to social determinants specific to SGM after the intervention.

In summary, the data supports H1. It indicates that education positively influences perceived knowledge and knowledge about SGM health disparities. However, the influence of education on knowledge related to social determinants specific to SGM could be vary before and after the intervention.

H2: Health care providers are ***not aware of social determinants of health specific to SGM*** *and received* ***little or no training on SGM (prior to this project)*** *and are also* ***not aware of tools to assess for SDH BFF***

A T-test was conducted to determine these variables prior to the intervention. One sample t-test was used to measure these variables individually.

Table 8: One Sample Statistics

	Mean	SD	T	Sig
Training (1=Yes, 2=N0)	1.79	.426	15.691	0.000*
Tool Familiarity (1=Yes, 2=N0)	1.71	.469	13.682	0.000*
Awareness of the Social Determinants (1=Strongly Agree to 5=Strongly Disagree)	3.14	1.167	10.074	0.000*

Table 8 presents the results of one-sample t-tests for these variables. The data revealed statistically significant differences from a neutral or uninformed position. The p-values of 0.000* indicates a substantial lack of familiarity with tools, training, and awareness among healthcare providers before the project. Hence, H2 is approved.

Chapter VIII

Discussion

The data analysis demonstrated that the educational intervention resulted in improvements in all tested areas including perceived knowledge, and knowledge of health disparities and social determinants specific to the SGM population. Prior to the intervention, health care providers revealed that the majority were not confident in their knowledge or skill set

when caring for SGM patients. After the intervention, most health care providers demonstrated that they were more confident in the care of SGM individuals.

All questions relating to knowledge of health disparities and social determinants specific to the SGM population were answered correctly more often after the intervention than prior. There was a significant change specifically when asked what health disparities are linked to. Prior to the intervention, health care providers were split between social and economic disadvantage and "all of the above". After the intervention, 91.67% of health care providers chose "all of the above" and agreed that health disparities were linked to both social and economic disadvantage, mental health, and sexual orientation.

Health care providers also revealed a better understanding on the reasons that SGM do not disclose their sexual orientation within the health care setting as well as the effects of discrimination. In addition, health care providers were better able to distinguish Florida as being a state that is not recognized for adopting laws and policies to protect SGM. This is an important finding as it contributes to health care provider anticipation on the needs of SGM patients within the state of Florida.

Chapter IX

Limitations

There were a few notable limitations within this quality improvement project that could have affected the accuracy of the data. The first being that the sample size is relatively small. The anticipated number of participants were originally 15, but only 14 completed the pre-test. Out of those 14 participants, only 11 were able to complete the study protocol, including the post-test. The lack of responses could have been contributed to other limitations such as time commitment. While the education intervention was approximately 17-minutes, this is a clinic

with a high patient volume and may have not been able to dedicate the time needed to complete the study protocol to the final stage.

Participant demographics and characteristics serve as another limitation. Health care providers included were medical assistants, nurses, nurse practitioners, and physicians. Differences in levels of education has the strong potential to affect understanding of the education including terminology. Having a higher level of education can also result in having a more comprehensive background on knowledge pertaining to care of SGM patients which may result in better pre-test and post-test scores. An example would be the pre-test and post-test scores of a medical assistant versus a physician or nurse practitioner.

Chapter X

Discussion of the Results with Implication to Advanced Nursing Practice

Currently, is there no standardized education tailored to health care providers on the social determinants of health pertinent to the sexual and gender minority (SGM) population. The education intervention used showed significant improvements in all areas tested, resulting in several implications to the nursing practice. The first is that it is apparent that health care providers have less than optimal awareness on caring for SGM patients based on their SDH in the absence of the intervention. This is an important finding as it demonstrates and reinforces what several studies have already shown, which is that health care providers are not adequately prepared to treat SGM individuals, and that intervention is necessitated (Bolding et al., 2022; Nowaskie, 2020; Nowaskie & Patel, 2021; Banerjee,2019). Second, the data analysis indicates that an educational webinar can be utilized in future studies as a possible modality to provide education to health care professionals.

As the content within the webinar is primarily based on content from The National LGBTQIA+ Education Center, positive findings within this study may serve in demonstrating the effectiveness of using educational material derived from this organization. The National LGBTQIA+ Health Education Center is a reputable organization with a plethora of free educational resources that can be utilized by the public. Health care organizations and health care professional programs can incorporate educational material from this organization into their education to advance health care knowledge and clinical skill set of healthcare providers and health care professional students when treating SGM patients. Furthermore, SGM health is seen across all sectors of healthcare therefore health care providers across all specialties would benefit from educational interventions specific to this population.

Considering the lack of studies that evaluate and improve healthcare provider knowledge on SDH within SGM patients, as well as the small sample size within this study, it is unlikely that study findings will be ready to use within the practice setting. It does, however, hold important implications for research and advancing nursing practice. This study served in contributing to the efforts towards filling literature gaps regarding social determinants, SGM health, and health care provider knowledge. In the efforts of promoting health equity, positive findings within this study serve as a motivator for future research. While this study investigates the effectiveness of one educational intervention, future research can focus on investigating the effectiveness of other education modalities and materials to serve in promoting health equity within the SGM population.

Dissemination Plan

It is the responsibility of the DNP candidate to disseminate project findings in order to contribute to the body of knowledge that is healthcare and overall advance the nursing practice.

This QI project was presented to the Miami Nurse Practitioner council for "A Synopsis of Quality Improvement initiatives for Advanced Practice Clinicians**".** This QI project will also be presented at the Florida International University DNP symposium.

Chapter XI

Conclusion

Sexual and gender minorities (SGM) suffer from many health disparities that can be linked to their social determinants. This QI project demonstrated that health care providers participants were not fully comfortable with caring for SGM in relation to their social determinants and lack knowledge regarding SGM health disparities and their social determinants. After the educational intervention, health care providers demonstrated increased perception of knowledge, and an increase in objective knowledge on SGM healthcare. Health care providers that are more knowledgeable on treating SGM patients can provide more individualized and targeted care. This can overall contribute to reducing health disparities, increasing health equity, and reducing medical costs. This is especially of important in the state of Florida, where SGM patients may experience increased likelihood of psychological distress due to the lack of supportive laws. In the future, larger scaled studies should be implemented using different teaching modalities as well as different educational resources to educate providers on assessing and treating SGM based on their social determinants.

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Appendix A

Letter of Institutional Support

Jackson HEALTH SYSTEM

6/2/23

Dana R. Sherman, DNP, MSN, ANP-BC, FNP-BC
Clinical Assistant Professor
Nicole Wertheim College of Nursing and Health Sciences
Florida International University

Dear Dr. Sherman,

Thank you for inviting Jackson Health System (JHS) to participate in the DNP project of Alexandria Portilla. It is understood that Ms. Portilla will be conducting this quality improvement project as part of the requirements for the Doctor of Nursing Practice at Florida International University. After reviewing the project titles "*Promoting Awareness of Social Determinants of Health (SDOH) When Caring for Sexual and Gender Minority (SGM) Patients: A Quality Improvement Project*", she has been granted permission to conduct her project in this organization.

It is understood that this project will take place from June 10th, 2023 to August 31st, 2023. Ms. Portilla will recruit 15 health care providers and conduct a recorded webinar educational presentation on social determinants of sexual and gender minorities and screening for social determinants. This educational presentation will be made available through a link shared with participants via institutional email. Pre and posttest surveys will be utilized to assess impact. The main goal of this project is to improve awareness, knowledge and screening of social determinants within sexual and gender minority patients.

Patricia Diaz

Patricia Diaz, DNP, APRN, FNP-BC, LCSW, CCM
Jackson Health System
North Dade Medical Center
16555 NW 25th Ave
Opa-locka, FL 33054
786-466-1600

Appendix B

FIU IRB Exemption Letter

FIU | FLORIDA INTERNATIONAL UNIVERSITY

Office of Research Integrity
Research Compliance, MARC 414

MEMORANDUM

To:	Dr. Dana Sherman
CC:	Alexandria Portilla
From:	Maria Melendez-Vargas, MIBA, Coordinator
Date:	July 21, 2023
Proposal Title:	"Promoting Awareness in Healthcare Providers of Social Determinants of Health (SDOH) When Caring for Sexual and Gender Minority (SGM) Patients: A Quality Improvement Project"
	Approval # IRB-23-0333-AM01
	Reference # 113301

The Florida International University Office of Research Integrity has approved the following modification(s):

- Changed the principal investigator from Dr. Carmen Framil to Dr. Dana Sherman due to Dr. Carmen Framil going on maternity leave. Project dates were changed due to Jackson IRB meeting being scheduled on August 2nd, which is later than previously thought.

Special Conditions:

For further information, you may visit the FIU IRB website at http://research.fiu.edu/irb.

MMV/em

Appendix C

JHS Nursing Research & Evidence-based Practice Council (NREBPC) and CNO Council

Approval Letter

Research & Evidence Based Practice Council

August 23, 2023

Dear Ms. Portilla (Alexandria),

This letter is to inform you that your Quality Improvement proposal titled**: "Promoting Awareness of Social Determinants of Health (SDOH) When Caring for Sexual and Gender Minority (SGM) Patients"** has been reviewed and approved by the Research & Evidence-Based Practice Council and the CNO Council at Jackson Health System (JHS).

The next step is approval from the JHS Clinical Trials Office. I have added Ericka Cheriska, Research Coordinator, to the accompanying email, who will guide you through the final approval steps.

Should you have any questions please feel free to contact me.

Sincerely,

Bridgette M. Johnson, PhD, RN
Nurse Scientist
Chair, Nursing Research & Evidence-Based Practice Council
(786) 466-2319
Bridgette.johnson@jhsmiami.org

cc: **Carol Biggs, MBA-HA, DHSc**
Senior Vice President & Chief Nursing Executive
Chair, CNO Council
Jackson Health System

Appendix D

JHS Clinical Trials Office Approval Letter

JHS Office of Research
Clinical Trials Office (Mail Room)
1611 NW 12th ave
Miami, FL 33136

August 23, 2023

To: Dr. Dana Sherman

CC: Alexandria Portilla

The JHS Clinical Trial Office on August 22, 2023 reviewed the Non-Human Subject Research protocol approved by JHS Council and CNO Council. This quality improvement project is now approved and may commence at Jackson Health System.

Protocol Title: Promoting Awareness of Social Determinants of Health (SDOH) When Caring for Sexual and Gender Minority (SGM) Patients

Principal Investigator: Dr. Dana Sherman

Type of Study: Quality improvement project

Enrollment Target: Local Site: 15

Study Approved Time: 1-2 months

Study fees waived in support of Nursing Program

It is noted, the Office of Research Integrity Research Compliance, from Florida International University Evaluated a Non-Human Subjects Research Application

Principal Investigator must notify to the Research Integrity Division of Research at Florida International University and JHS Office of Research if the proposed activity changes and becomes human subject research.

- **A participant enrollment form must be submitted to Clinical Trials Office <ClinicalTrialsOffice@jhsmiami.org> on a timely basis.**

- **If any manuscript resulting from this research is accepted by a Medical Journal for publication, please notify the Clinical Trials Office by submitting a copy to jhs-pub-notifications@jhsmiami.org**

This study must be conducted in accordance with the JHS approval.

Thank you for working with the JHS Office of Research.

Ericka Cheriska
Research Program Coordinator of Clinical Trials

Katuska Barbery, MBA
Director of Clinical Trials

Appendix E

Pre/Post-survey questions

PRETEST-POSTTEST

Promoting Awareness in Healthcare Providers of Social Determinants of Health (SDOH) When Caring for Sexual and Gender Minority (SGM) Patients: A Quality Improvement Project

Introduction

The following questions serve as an essential component within this quality improvement project with the purpose of improving health care provider knowledge on the social determinants that target sexual and gender minorities. Please answer these questions to your best knowledge. They are meant to assess your comprehension of sexual and gender minority social determinants, correlating health disparities, and screening for social determinants.

Your participation in this project is entirely voluntary and all responses will be kept confidential.

Demographic

Gender: Female _____ Male _____Other _____ Wish not to disclose _____

Age: 20-30 yrs. _____ 30-40 yrs._____ 40-50 yrs._____ >50 yrs. _____

Ethnicity: White _____ Black _____ Asian _____ Other _____

Position: RN _____ APRN _____ Physician _____ Medical Technician _____

(Frequency, percentage) ex: (n=15, 87%)

Questionnaire

1. Have you ever received any training in the care of SGM patients?

No _____ Yes _____

2. Have you ever received any education on screening for patient social determinants?

No _____ Yes _____

3. Are you familiar with any tool to screen for social determinants?

No_____ Yes _____

(Frequency, percentage) (ex=n15, 82%)

Perceived knowledge

4. Please respond to the following statements:

Statement	Strongly	Agree	Undecided	Disagree	Strongly
I am aware of the social determinants that affect SGM individuals					

I am confident in my abilities to screen for social determinants					
I have the necessary skill set to screen for social determinants in SGM patients					
I am knowledgeable on the heath disparities that typically target SGM patients					

Descriptive statistics ex n=3 and % (compared from pre-test and post-test)

Assessment of Knowledge on SGM Health Disparities

5. Health disparities are linked to:

_____ social and economic disadvantage

_____ mental health

_____ sexual orientation

_____ all the above

6. Lesbian and bisexual women are more at risk for:

_____ cervical cancer,

_____ breast cancer,

_____ obesity,

_____ all of the above

True/False

7. LGB people use tobacco, smoke marijuana, drink heavily, and participate in illicit stimulant drug at equal rates than heterosexual individuals

_____ True _____ False

8. Heterosexual men are at higher risk of acquiring cancer than gay men

_____ True _____ False

9. Heterosexual women are more likely to receive Papanicolaou testing and STD testing than lesbian women

_____ True _____ False

10. In comparison to cisgender populations, transgender individuals are more likely to experience chronic disease and disabilities

_____ True _____ False

11. Transgender women are more likely to develop cardiovascular disease than cisgender women

_____ True _____ False

Assessment of Knowledge on Social Determinants specific to SGM

12. SGM patients do not disclose their sexual orientation due to

_____ valuing their privacy

_____ fear of discriminatory treatment

_____ does not view this information as useful to their treatment

13. SGM individuals do not seek health care due to:

_____ being uninsured

_____ fear of discrimination

_____ medical mistrust

_____ all the above

14. Discrimination has been shown to affect

_____ physical wellbeing,

_____ mental wellbeing

_____ both

True/False

15. Social determinants, such as homelessness, hold the same consequences for both heterosexual and SGM individuals

_____ True _____ False

16. Bisexual men are wealthier than heterosexual and cisgender men

_____ True _____ False

18. SGM individuals no longer experience discrimination within the health care field

_____ True _____ False

19. Florida is one of the few states that adopt laws and policies to protect SGM individuals

_____ True _____ False

20. The minority stress theory can affect anyone

_____ True _____ False

21. Health care reform provided every SGM with health care insurance

_____ True _____ False