Disparities in Health Care for the Transgender Population

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Abstract

Individuals identifying as transgender, gender nonconforming, or those born with differences of sex development from societal norms have specific healthcare needs. These individuals experience disparities in healthcare treatment as a result of a lack of cultural competence, stereotypes, and personal bias among healthcare professionals. Despite being inclusive of all patients and acceptance of cultural beliefs, many organizations fall short of being inclusive when caring for transgender or gender nonconforming patients. Front line healthcare workers can have a positive impact on the psychological and physical care delivered to transgender patients; thus, setting the stage for a patient of a minority having a great experience when interacting with healthcare workers. This project assessed the impact of transgender cultural sensitivity training to healthcare workers in the primary care setting. Cultural sensitivity training included one essential intervention and was guided by the Purnell Model for cultural competence. The cultural sensitivity intervention encompassed a hour lecture with objectives focused on healthcare worker transgender-specific interactions in the Primary Care setting. The Genderism and Transphobia Scale (GTS) (Hill & Willoughby, 2005) was utilized pre- and post- training as a tool to measure the effectiveness of the cultural awareness and sensitivity interventions implemented. Pre- and post- survey results were analyzed for variations within the reported scores to determine the effectiveness of the project interventions to increase transgender cultural sensitivity in healthcare workers. The analysis revealed improved GTS scores after intervention and statistically significant improvements in the eight-week post assessment period.

DNP Proposal: Disparities in Health Care for the Transgender Population

Introduction

In 2011, the Institute of Medicine issued a report on the state of the health of lesbian, gay, bisexual, and transgender (LGBT) individuals. The report identified a future need for research to advance knowledge and health of the LGBT population to promote health, reduce healthcare disparities, and prevent marginalization among the LGBT community. Transgender individuals are a subgroup within the LGBT community who specifically experience social stigmatization. *Transgender* is a term referencing individuals whose gender expression or gender identity differs from their sex assigned at birth. According to Flores, Herman, Gates, and Brown, in 2016 there were an estimated 1.4 million transgender Americans (0.6 percent of the population). Transgender individuals experience various active and passive aggression and prejudice in everyday life from mainstream society (Grant et al., 2011). *Transprejudice* is "the negative valuing, stereotyping, and discriminatory treatment of individuals whose appearance or identity does not conform to the current social expectations or conventional conceptions of gender" (King, Winter, & Webster, 2009, p. 20). Healthcare providers must be competent in providing culturally sensitive care for transgender individuals, including using the patient's correct name and pronoun, asking appropriate questions, eliminating discrimination or bias, and leveraging transgender-inclusive policies and procedures in practice.

Cultural competency through awareness and sensitivity in healthcare requires healthcare professionals to be able to provide care or services with applicable attention to cultural beliefs, behaviors, and needs of the patient (Centers for Disease Control and Prevention, National Prevention Information Network, 2018). Cultural sensitivity and awareness references the need for healthcare professionals to understand their own cultural beliefs and biases and how these

beliefs and biases influence their ability to care for a patient within a specific culture effectively. Park and Safer (2018) identified medical students who had previous experiences through family or friends or had increased clinical exposure to the LGBT population as having increased positive attitudes towards LGBT patients. Overall, these medical students acquired increased knowledge of LGBT health care needs as compared to medical students with minimal or no experience in caring for LGBT patients. Various studies suggest that increased education and personal or professional contact with the LGBT community results in positive attitudes and increased acceptance of LGBT patients by healthcare professionals (Dorsen, 2012; Lelutiu-Weinberger et al., 2016; Porter & Krinsky, 2014; Safer & Pearce, 2013; Sawning et al., 2017; Strong & Folse, 2016).

Background and Significance

Transgender people are faced with disparities in health care at every touch point of care. Social stigma, isolation, avoidance, lack of acceptance, lack of knowledge, spiritual beliefs, and discrimination by healthcare workers results in inadequate health care (Lyons et al., 2015). Insufficient cultural competence, conscious and unconscious bias, and personal beliefs by healthcare professionals contribute to inadequate health equity for transgender patients.

Heteronormativity is more frequent than homophobia and describes a set of societal assumptions and norms, which are based on heterosexual cisgender (someone whose gender identity aligns with the gender assigned at birth) experiences influenced by social biases, privilege, and stereotyping. Heteronormativity is seen in health care, sex education, workplace, and in everyday interactions with strangers (Carrotte et al., 2016). Heteronormativity creates barriers for transgender individuals seeking health care. These barriers result in transgender patients not disclosing gender identity or sexual orientation, increased negative health behaviors,

feelings of internalized stigma, delays in seeking health care, and ultimately identifying other avenues to meet their specific healthcare needs (Carrotte et al., 2016). Alternatively, in this population, unsafe avenues of seeking health care include use of street drugs or home remedies (Lee & Kanji, 2017).

Preventive care in the transgender population is often nonexistent. In addition to heteronormativity, Lee and Kanji (2017) identified three types of barriers that are created by healthcare professionals. These barriers include discrimination, ignorance, and assumptions related to healthcare needs for the transgender patient population. Discrimination can be experienced as actual or anticipated. Anticipated discrimination is a feeling that the transgender patient will be discriminated against based on previous negative interactions with healthcare professionals. These feelings result in fear and apprehension to seeking care or disclosing critical medical facts to healthcare professionals.

Transgender and gender nonconforming individuals have higher rates of mental abuse, physical abuse, substance abuse, and experience a higher rate of mental illness when compared to their cisgender counterparts (Eckstrand, Ng, & Potter, 2016). The transgender population has poorer health outcomes for cancer detection and therapy as a result of late detection and treatment (Levitt, 2015). Other health statistics include increased risk for sexually transmitted diseases, suicide, and trauma (Makadon, Mayer, Potter, & Goldhammer, 2008). These statistics support the presence of disparities in the transgender population and supports the need for future healthcare professional education.

Healthcare workers participate in annual educational requirements for diversity and inclusion; however, the training lacks gender minority needs. Trainings are inadequate and are not specific to individual communities that experience prejudice and stereotypes. Cultural

competency in healthcare is the ability to provide care concerning cultural beliefs and behaviors to individual patient needs. Having only knowledge of cultural needs for diverse populations does not constitute cultural competency. Cultural competence consists of four fundamental stages, including awareness through knowledge, sensitivity and attitude, competency through skills, and mastery as the ability to train others in competence (Turner, Wilson, & Shirah, 2006). Being culturally aware is a subset of cultural competency, is an understanding of nomenclature associated within a community, and can advance into the sensitivity of the culture learned. Cultural awareness through knowledge can result in the development of new attitudes towards the specific culture, thus eliminating health disparities.

Problem Statement

There is a gap in education within the healthcare community when caring for transgender patients. The training of cultural competency for the transgender patient is most often learned on the job and is obtained through first-hand experience with transgender patients. Unfortunately, this learning negatively impacts the transgender patient as it results in the patient having to educate the healthcare provider about transgender-related care. Jaffee, Shires, and Stroumsa's (2016) study concluded that transgender patients who had to educate their healthcare providers regarding transgender care were four times more likely to delay needed healthcare. Healthcare professionals are not adequately educated on the specific healthcare needs of transgender individuals, resulting in transgender patients teaching their healthcare professionals about their particular needs in addition to clearing up any misconceptions and assumptions that healthcare professionals may have about transgender individuals. Most medical students receive minimal LGBT education during medical school; while most nursing students do not receive any formal training (Keuroghlian, Ard, & Makadon, 2017).

In addition to the literature referenced, a firsthand conversation of a patient care experience was noted from a transgender patient. The transgender patient will be referred to as Mr. B. Mr. B expressed concerns and frustrations with the healthcare that he receives (personal communication, February 12, 2018). Mr. B was born female and identifies as male. He has been a patient for six months and has been misgendered (addressing an individual with the incorrect gender pronoun) on various occasions. Mr. B explained, "Despite my continuous corrections for my preferred pronoun, specific employees choose to use the incorrect pronoun when addressing me." Mr. B does not feel accepted by the healthcare staff and must build up the courage to come to see his physician. It takes Mr. B approximately three hours to prepare mentally and physically for his doctors' visits. Mr. B expresses frustrations towards those staff members and feels "devalued as a human being" when seeking health care. Mr. B reflected on a previous experience where he checked in for his appointment and a nurse attempted to call him back to the examination room by using the incorrect pronoun. Mr. B did not respond and walked out of the doctor's office without being seen that day. This personal experience validates the presence of disparity in healthcare. Healthcare workers lack tools, cultural competence, and sensitivity to care for patients who identify as transgender. The empathy that this author experienced when speaking to this patient and the experiences and barriers that the patient faced throughout his healthcare interactions are the reasons why this topic was chosen.

Purpose Statement

The objective of the quality improvement project was to increase healthcare worker's cultural awareness and sensitivity of the transgender patient in the healthcare setting, specifically primary care. The goal aimed to improve diversity and inclusion for all patients within the organization. Cultural competency of the healthcare worker is critical to the outcomes of the

patients the organization serves. Cultural competence includes awareness and knowledge, sensitivity and attitudes, competency and skills, and lastly, the ability to master the proficiency by training others on transgender care.

In 2015, the Human Rights Campaign issued a toolkit titled Healthcare Equity Index (HEI) that scores organizations on equality for LGBT Americans. The HEI assesses how well an organization and the culture of that organization meets four qualities of inclusivity for the LGBT community. The four areas that are considered the framework for organizations seeking inclusivity include patient nondiscrimination, equal visitation rights, employment non-discrimination, and staff training in LGBT patient-centered care. Transgender is a segment of the LGBT group. Aligning with the HEI framework, this improvement project focused on staff training of transgender patient-centered care to cultivate nondiscrimination among transgender patients and employees.

In any healthcare organization, everyone from the housekeeper to the Chief Executive Officer plays a vital role in ensuring that the culture of diversity and inclusion is at front and center of care delivery. The leadership of an organization should support diversity and inclusion on various platforms, including employee resource support groups, refined policies and procedures on diversity and inclusion, and supporting a workforce that is diversified at all levels. An organization can attest to inclusivity through well-written policies and procedures; however, the culture through actions of the staff could misalign the organization's intent. Front line employees are the most critical individuals in patient experience by setting the tone of inclusivity for the healthcare visit and often have not received formal training on cultural competence for transgender care. Front line employees include nurses, schedulers, and desk attendants. This

project implemented education for the front-line staff at a local primary care office in an effort to improve transgender cultural sensitivity and awareness.

After obtaining first-hand experiences of transgender patients receiving care within the affiliated organization, the organization's mission, vision, and values, the following clinical questions are proposed as a foundation for the quality improvement project:

1. Does cultural awareness training for allied health staff on the topic of transgender care promotes confidence in the healthcare professional's ability to care for transgender patients?
2. Can unconscious and conscious bias of allied health staff concerning an individual's assumptions of transgender lifestyle be suppressed through cultural awareness to support an inclusive patient care environment for transgender patients?
3. Can an individual's sensitivity and attitudes change when educational opportunities are provided?

Theoretical Framework

The Purnell Model for Cultural Competence created by Purnell and Paulanka, was developed in 1995 and is a model used in practice, education, research, administration, and management of healthcare services (Butts & Rich, 2015, p. 526). This model is a guide to incorporating cultural competence through cultural awareness and appreciation. The Purnell Model is illustrated through four layers of a circle. Each layer represents an aspect that makes up an individual's culture (see Figure 1). The concepts of the Purnell Model consist of global society, community, family, and person (Butts & Rich, 2015, p. 530). Global society examples include world communication, politics, natural disasters, and information technology. Global society is influenced by television, radio, and news and passively and actively shapes the society

that individuals live in. A community is a group of individuals that have a shared affiliation or existence. A family is at least two people who are emotionally connected. Family can be small or large and can be living in the same home or separate homes. A person is an individual who adapts to the community in which they live. Health is impacted by these domains and is the physical, mental, and spiritual state of the person (Purnell, 2013).

The Purnell Model consists of 12 various cultural domains. Each domain does not have to be addressed by the healthcare practitioner at each encounter; however, the 12 domains encompass the various aspects of the person and are essential when addressing a patient's all-encompassing culture. The 12 domains consist of overview and heritage, communication, family roles and organization, workforce issues, bicultural ecology, high-risk health behaviors, nutrition, pregnancy and childbearing practices, death rituals, spirituality, healthcare practices, and healthcare practitioners (Butts & Rich, 2015, p. 532-549). The healthcare professionals are part of the person’s culture and impact a person’s ability to thrive in the community.

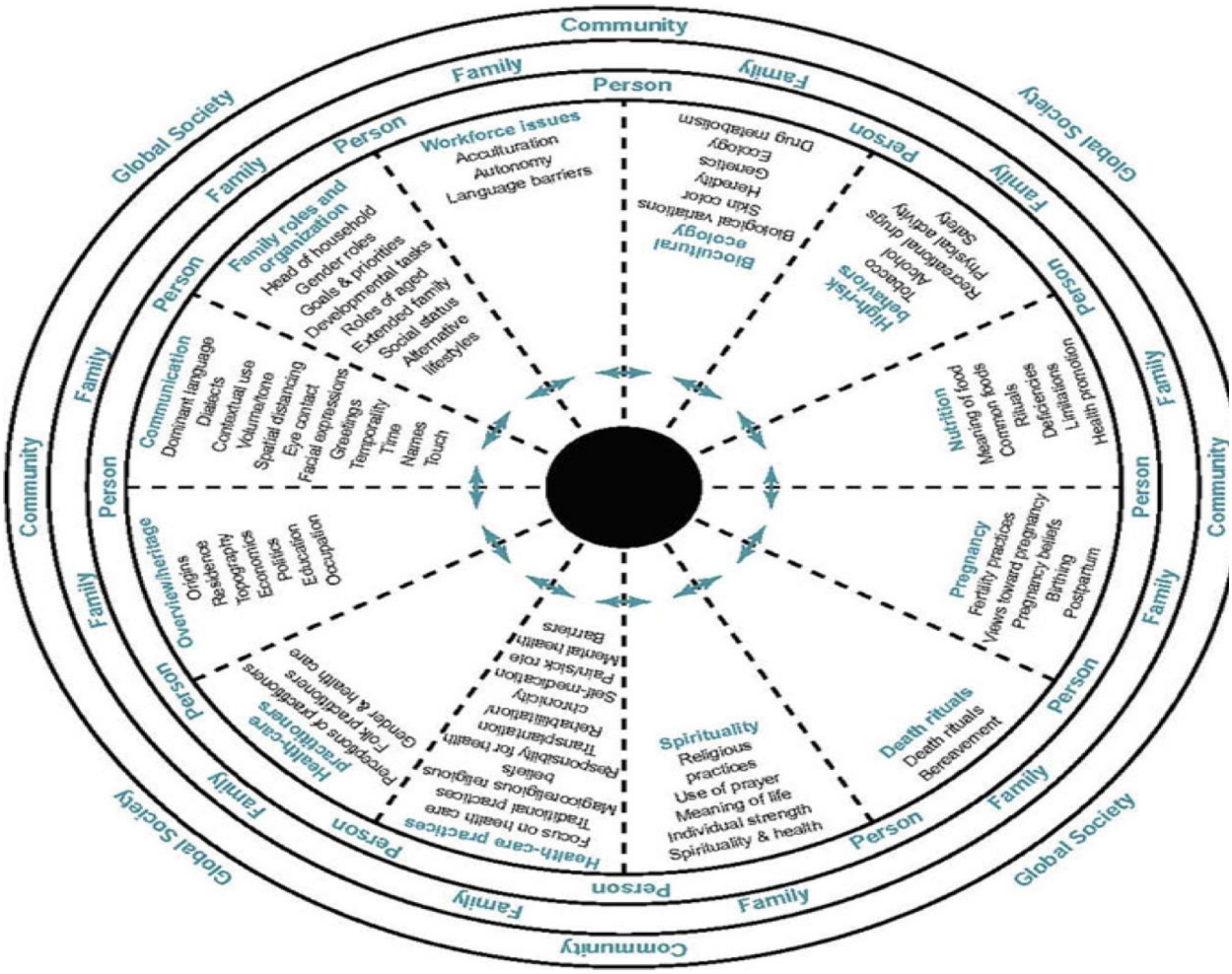

Figure 1 The Purnell Model for Cultural Competence (Butts & Rich, 2015, p. 529)

The Purnell Model offers a foundation to gain an understanding and knowledge about diverse cultures with an emphasis on providing culturally competent care in various clinical settings (Purnell, 2002). The Purnell Model for Cultural Competence was selected as the foundation of the theoretical framework for this project. To teach healthcare professionals transgender cultural awareness and sensitivity, the educator must focus on the four aspects of the model that influence the transgender individual's culture, global society, community, family, and person. An understanding of all four aspects of the transgender culture is essential. The global

society through heteronormativity has influenced unconscious and conscious bias towards transgender individuals, resulting in assumptions and inappropriate actions by healthcare professionals. Literature has documented time and time again that healthcare professionals' actions when caring for transgender individuals are not culturally sensitive (Lyons et al., 2015). Leveraging the four domains of the transgender culture, healthcare learners can identify and reduce aspects of their healthcare delivery that result in healthcare disparities. Interventions include using inclusive language in questionnaires (appropriate identification of gender, significant other titles, and social beliefs), forms, building signage, policies, and standard, consistent approaches to addressing patients by the right name and pronoun.

The Purnell Model aligns with this training. The framework of the model supported the project to increase cultural awareness by healthcare workers caring for transgender patients. Literature supports that when healthcare worker do not provide competent transgender cultural care to transgender patients, the experience results in a negative interaction, including discrimination and mistreatment by the healthcare team (Cornelius & Whitaker-Brown, 2017; Cruz, 2014; Grant et al., 2011; Lindroth, 2016; Lyons et al., 2015; Muller, 2017; Poteat, German, Kerrigan, 2013). The lack of healthcare professionals' cultural awareness training for transgender patients results in healthcare workers acting insensitively and inappropriately during the healthcare visit. The educational intervention of this project encompassed Purnell's 12 cultural domains and associated concepts to the transgender culture approach to training. Exploring these domains through the eyes of transgender person who lives the culture and has experiences navigating through the healthcare system, allowed healthcare workers to empathize and understand the barriers that this specific community is faced with every day. These barriers are more global than just healthcare and begin with a lack of social acceptance.

Definition of Key Terms

- *Transgender* is an umbrella term that describes a person with diverse gender identities and gender expression that is not consistent with the gender assigned at birth (The 519.org, n.d.). There is other nomenclature that carries the same definition, including trans, transsexual, and transvestite. Some of these terms can be perceived as offensive or outdated; therefore, transgender is the preferred terminology.
- *Gender identity* is how a person perceives himself or herself as being a man, woman, or other (The 519.org, n.d.).
- *Gender expression* is the gender consistent with the sex to which the individual presents themselves publicly through physical appearance, behavior, and voice (The 519.org, n.d.).
- *Cisgender* is an individual whose gender identity is consistent with the gender assigned at birth (The 519.org, n.d.).
- *Transitioning* is a host of activities that a transgender individual undergoes to correct gender incongruence (The 519.org, n.d.). Transitioning is fluid and can be referenced as the legal, medical, or surgical process of changing one's sexual identity.
- *Transphobia* or *transprejudice* is considered the unreasoning hostility towards transgender individuals and consists of negative attitudes and feelings and aversion to, fear, hatred, or intolerance of transgender individuals and transgender communities (The 519.org, n.d.).
- *Heteronormativity/ cisnormativity* is a set of societal assumptions and norms based on cisgender experiences and affected by societal acceptance, biases, privilege, and stereotyping (Carrotte et al., 2016).

- *Misgender* is when an individual uses an incorrect gender pronoun or gender reference that is not consistent with the gender that a person identifies with (Clement, 2017).
- *Stigma* is the social process of "othering, blaming, and shaming" that leads to status loss and discrimination (Deacon, 2006, p. 214).

Review of Literature

A review of the literature was conducted to understand the current state of transgender experiences resulting in societal prejudice and stigma. The literature review focused on exploring transgender healthcare disparities within the healthcare system as it relates to healthcare workers beliefs, attitudes, and competence in caring for transgender patients. The literature search encompassed previous studies that focused on increasing transgender cultural competency in healthcare workers. After a review of the literature was conducted to understand the problem identified, an additional review of the literature was completed to identify a validated and reliable assessment tool to utilize in the project. The LGBT community is considered a minority group. Despite significant differences in medical, physical, and psychosocial needs, much of the cultural competence research identifies transgender cultural competence training as a subset within LGBT training. There are limited studies that independently address transgender competency training. For this reason, any study of training that identified of a transgender component was considered in the review of literature.

A literature review was collected through various electronic search engines, including Google Scholar, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, Joanna Briggs Institute (JBI) Database, ProQuest, Pub Med, Ebsco Host, and Up To Date. Keywords and phrases used in the searches included LGBT issues, sexual minority, transgender care, discrimination, gender non-conforming, transgender, transsexual, transgender

health, transphobia, and gender identity. Additional search terms including prejudice, violence, cultural competence, culturally sensitive care, attitudes of healthcare workers, health disparities, nurses' attitudes, and unconscious bias were combined to explore multiple topics using "and" within the search function. The review of the literature was limited to relevant peer-reviewed articles in English. Articles containing research, general discussions, and nursing implications were analyzed to gain a broad foundation of the topic. The initial date range searched was 2012-2018. Additional journals were identified through citations and reference lists of within the topic-specific articles.

Search Results

The literature query resulted in a total of 29 articles between 2012 and 2018. Expanding the date range of publication to 2000- 2011 allowed discovery of four additional pertinent articles. Six articles were excluded from the review of literature based on being informational, lacking specific research studies (Eckstrand et al., 2016; Keuroghlian et al., 2017; Levitt, 2015; Lim, Brown, & Kim, 2014; Lombardi, 2001; Polly & Nicole, 2011). Mustanski, Andrews, and Puckett (2016) did not specifically address general transgender healthcare considerations, transgender healthcare experiences, transgender social stigma, healthcare workers attitudes and beliefs of transgender individuals, previous transgender competency training studies, or assessment of various transgender prejudice tools and was also removed from consideration. An eighth article was removed from consideration as the study lacked measures and had a small sample size (Maguen, Shipherd, & Harris, 2005). A total of 25 articles were considered for relevancy. Articles were grouped into themes to support the project. Three themes were identified among the reviewed articles: transgender experiences in society, including social stigmas and healthcare needs (11): healthcare students' or healthcare workers' attitudes and

beliefs about lesbian, gay, bisexual, and transgender individuals (7): and previous transgender competency training studies (7).

Transgender experiences. Transgender healthcare experiences are critical to understanding as the review of literature shows that transgender individuals are more likely to postpone or avoid seeking necessary healthcare treatment as a result of being previously mistreated by healthcare workers and medical institutions (Cruz, 2014; Grant et al., 2011; Lee & Kanji, 2017; Lindroth, 2016; Lyons et al., 2015; Muller, 2017; Poteat et al., 2013; Radix, Lelutlu-Weinbergar, and Gamarel, 2014). Postponing, or avoiding medical care by the transgender community has contributed to healthcare disparities for this population. Eleven qualitative studies addressed societal transgender experiences. Data gathering for the various studies consisted of interview survey design with semi-structured questions through individual interviews, or focus group settings to evaluate transgender experiences when seeking healthcare.

Transgender study participants who shared their gender identity status with healthcare workers felt disrespected, discriminated against, and did not receive equal healthcare treatment when compared to cisgender individuals (Cornelius & Whitaker-Brown, 2017; Jaffee et al., 2016; Lindroth, 2016; Lyons et al., 2015; Muller, 2017; Poteat et al., 2013). Transgender participants in various studies referenced having to teach healthcare professionals about their gender identity, indicating that the gaps in care are a result of the lack of competency in transgender culture through healthcare workers (Cornelius & Whitaker-Brown, 2017; Jaffee et al., 2016; Muller, 2017; Poteat et al., 2013). Lindroth's study (2016) revealed transgender participants felt estranged in society as a result of a lack of knowledge by the healthcare provider, healthcare professionals making gender assumptions though misgendering, and the absence of access to specialty healthcare. Transgender participants admitted to avoiding or

delaying care due to fear of interactions with healthcare professionals (Jaffee et al., 2016; Lindroth, 2016). The fear that the transgender individuals in the studies identified was a result of prior negative healthcare experiences and aligns with personal experiences articulated by Mr. B.

Lyons et al., (2015) completed a qualitative interview study to explore transgender experiences in residential addiction treatment settings. Eighty-six percent of the transgender patients who entered a drug addiction treatment center did not experience gender friendly treatment (Lyons et al., 2015). Experiences that the transgender patients encountered in the treatment facility included enacted stigma resulting in discrimination ranging from name-calling to violence, social rejection, and harassment by other patients and the healthcare team. Transgender patients fearing personal safety left the treatment facility early, resulting in ineffective substance abuse treatment. Additionally, transgender patients were noted leaving treatment prematurely as a result of medical workers in the facility mocking the gender identity of the transgender individual and telling the transgender person how they should act (Lyons et al., 2015).

Lee and Kanji (2017) completed a literature review of 28 qualitative articles identifying LGBT patients' healthcare experiences. Similarly, they identified negative feelings from LGBT individuals in relation to healthcare experiences, including feelings of alienation through nonverbal cues, such as facial expressions and body language; rough, physical handling; discrimination from the healthcare professionals after coming out; concerns not being validated; assumptions or judgments based on stereotypes; assumptions of gender identity without asking; lack of gender-neutral language; and healthcare professionals being dominant, insensitive, and cruel. Positive feelings were noted by LGBT individuals when the healthcare worker provided compassionate care with eye contact and open facial expressions, displayed professionalism

during interactions, and was respectful and explained procedures (Lee & Kanji, 2017). Additionally, healthcare professionals who were accepting to an LGBT patient disclosure and displayed worth affirming interactions were seen as a positive experience for the LGBT patient (Lee & Kanji, 2017).

In addition to the healthcare professional's personal bias and lack of cultural competence when caring for and interacting with transgender patients, there are other societal barriers experienced by the transgender community. A review of literature on transgender individuals participating in sports and competitive sports policies completed by Jones et al. (2017) revealed that sports policies lacked transgender inclusivity and resulted in documented assumptions that transgender women have an athletic advantage in sports. Assumptions in competitive sports policies are noted through policy limitations in various sports restricting transitioning transgender individuals to participate in competitive sports, resulting in discriminatory practices (Jones et al., 2017). Cartotte et al. (2016) explored inclusivity of survey tools when inquiring about sexual health and concluded that comprehensive sexual health surveys and questionnaire forms are heteronormative and do not address transgender needs. The study participants were transgender and cisgender and referenced general sexual health forms as invalidating to the transgender participants' sexual experiences, resulting in miscommunications and assumptions by the person who reviewed the forms or surveys (Cartotte et al., 2016). In addition to the lack of inclusivity in questionnaires and surveys, Radix et al. (2014) reported that transgender individuals experience various barriers including utilizing preventive services, seeking access to transition-related procedures, seeking access to legal assistance, and a lack of inclusivity in public health education campaigns.

Healthcare workers' attitudes and beliefs. Culturally sensitive care for any patient is fundamental for competent nursing practice. Healthcare students' and healthcare workers' beliefs, attitudes, and knowledge can impact the transgender individual's experience. Previous studies have shown that lack of knowledge by the healthcare provider is identified as one of the top barriers to providing culturally competent care to the transgender individual (Grant et al., 2010; Sanchez, Sanchez, and Danoff, 2009). This lack of knowledge can be fueled by the healthcare provider's individual cultural beliefs or biases towards the transgender community.

Seven studies focused on healthcare workers' attitudes and beliefs towards LGBT or exclusively the transgender population. Four of the studies consisted of online surveys (Grzanka, Zeiders, & Miles, 2016; Hancock & Haskin, 2015; Lapinski, Sexton, & Baker, 2014; Sanchez et al., 2006), and two were extensive literature reviews that synthesized nursing attitudes for LGBT individuals (Dorsen, 2012; Lim & Hsu, 2016). One study was classified as a qualitative design and did not have any statistical data; however, common themes were identified (Beagan et al., 2013).

Three of the online survey studies explored healthcare workers' attitudes and beliefs towards LGBT patients utilizing a correlational design (Grzanka, Zeiders, & Miles, 2016; Lapinski, Sexton, & Baker, 2014; Sanchez et al., 2006). The correlational results were consistent among all three studies and revealed higher acceptance and positive feelings towards LGBT patients when the healthcare student or healthcare worker either identified as being LGBT or had an association to LGBT individuals through friends or family (Grzanka, Zeiders, & Miles, 2016; Lapinski, Sexton, & Baker, 2014; Sanchez et al., 2006). Consequently, the correlations showed that healthcare students or healthcare workers who had no personal ties to LGBT individuals had lower acceptance with higher rates of prejudice towards LGBT patients (Grzanka, Zeiders, &

Miles, 2016; Lapinski, Sexton, & Baker, 2014; Sanchez et al., 2006). Sanchez et al.'s (2006) study further identified that more exposure to LGBT patients increased positive attitudes towards the LGBT community.

Three studies noted a knowledge deficit for how to treat LGBT patients and a lack of understanding of specific risk factors for the LGBT population (Beagan et al., 2013; Hancock & Haskin, 2015; Lapinski et al., 2014). Despite having some exposure to transgender patients, nurses felt uncertain about caring for transgender individuals and wanted more training when a qualitative assessment of personal experiences was explored (Beagan et al., 2013). Similarly, Hancock and Haskin (2015) revealed through an exploratory online survey of Speech-Language Pathologists (SLP), 47% of respondents stated that transgender care was not addressed in college and 51% did not know what transgender communication therapy entailed. Contradictory to the previous correlational study results reviewed in this literature review, Hancock and Haskin's (2015) study revealed that 88% of the SLPs participants stated that they had no moral beliefs that would result in barriers to caring for LGBT patients and were willing to learn how to care for transgender individuals correctly.

Two articles conducted a review of the literature on nursing student's attitudes towards LGBT people (Dorsen, 2012; Lim & Hsu, 2016). Results in both literature reviews revealed that nurses overall expressed negative feelings about LGBT patients (Dorsen, 2012; Lim & Hsu, 2016). Both studies identified a correlation of negative attitudes with nurses who had strong religious affiliations (Dorsen, 2012; Lim & Hsu, 2016) or fear of contracting Acquired Immune Deficiency Syndrome (AIDS) (Lim & Hsu, 2016). Negative attitudes correlated with the nurses' lack of willingness to care for LGBT patients (Lim & Hsu, 2016). Positive influences about LGBT patients were noted when nurses had increased knowledge of AIDS through enhanced

training (Lim & Hsu, 2016). The extensive review of the literature performed by Dorsen (2012) suggests the best predictors of positive attitudes occurs with increased education, increased personal or professional contact with the LGBT community, decreased religious affiliations, and reduced fear of contracting AIDS. Lim and Hsu (2016) attribute historical underpinnings of nursing based on Christian values that have been exemplified by Florence Nightingale as possibly contributing to adverse feelings towards LGBT people.

Transgender competency training. Various studies in this literature review showed cultural training as little as 45 minutes or as much as a total of eleven hours decreased negative attitudes and increased awareness of actions classified as transphobic (Sawning et al., 2017; Strong, 2015). Consequently, one of the studies showed that after education, the healthcare team felt more challenged to conduct an LGBT history, attributing this to the new learned cultural awareness for LGBT patients (Sawning et al., 2017). Seven studies of the effectiveness of competency training on transgender culture for healthcare students and healthcare workers leveraged various questionnaire tools before and after to measure the effectiveness of the intervention. The pre- and post-intervention questionnaires were identical, and paired *t* -tests were commonly used to measure for statistically significant differences in responses.

Seven articles addressed various modalities of competency training with nurses, medical students, and healthcare workers to improve awareness, knowledge, and skill when caring for LGBT individuals (Felsenstein, 2018; Lelutiu-Weinberger et al., 2016; Park & Safer, 2018; Porter & Krinsky, 2014; Safer & Pearce, 2013; Sawning et al., 2017; Strong & Folse, 2015). Four of the studies were LGBT-focused competency training (Felsenstein, 2018; Porter & Krinsky, 2014; Sawning et al., 2017; Strong & Folse, 2015), while three specifically addressed transgender competency training (Lelutiu-Weinberger et al., 2016; Park & Safer, 2018; Safer &

Pearce, 2013). Three of the articles concentrated on interventions with medical students in medical curriculum (Park & Safer, 2018; Safer & Pearce, 2013; Sawning et al., 2017), two focused on current healthcare workers of all educational backgrounds (Lelutiu-Weinberger et al., 2016; Porter & Krinsky, 2014), and one specifically addressed nursing students (Strong & Folse, 2015). All seven articles showed improvements in awareness, competency, knowledge, skills, and attitudes towards LGBT individuals after an intervention was performed.

Sawning et al. (2017) utilized a health certificate program consisting of 11 one- hour sessions, in which the eligible participants attended at least four sessions. In the review of lessons learned, Sawning et al. (2017) recommend seeking an LGBT health expert to support the program. Safer and Pearce (2013) and Park and Safer (2018) explored adding transgender care content to the medical curriculum. Safer and Pearce's (2013) intervention consisted of only didactic efforts. Subsequently after Safer and Pearce (2013) completed their study, Park and Safer (2018) further advanced the topic of transgender competency training by performing a study that included didactic training in conjunction with hands-on clinical care of transgender patients. The results repeatedly showed high comfort and significantly increased knowledge attainment by medical students. Positive outcomes were significantly higher in the Park and Safer (2018) study as compared to the Safer and Pearce (2013) study. The study concluded that didactic training in conjunction with actual clinical care of transgender patients significantly improved the medical students' competency of caring for transgender patients (Park & Safer, 2018).

Porter and Krinsky's (2014) study consisted of a five-hour workshop for LGBT cultural competency training for healthcare workers. Results revealed a statistically significant improvement in healthcare workers' knowledge, attitudes, and behavioral intentions towards

LGBT individuals (Porter & Krinsky, 2014). Felsenstein (2018) initiated a study utilizing computer-based training, followed by a panel discussion with current healthcare workers of all educational background levels. After interventions, the results revealed an increase in staff competence and confidence in caring for LGBT patients. Barriers to Felsenstein's improvement project included lack of allotted time for the healthcare workers to complete the educational modules and attend the panel discussion, without compromising the day-to-day clinical floor practice work. The study was small; however, the initiative met the goals of improving self-identified LGBT cultural competency among healthcare workers in this department (Felsenstein, 2018).

Strong and Folse (2015) addressed nursing students' knowledge, attitudes, and cultural competence in caring for LGBT patients before and after a 45-minute educational intervention. There was a statistically significant increase in positive attitudes and knowledge level of cultural competency after the educational intervention. The study concluded that education had a positive impact on knowledge and attitudes regarding LGBT people, and supported that specific LGBT education is necessary for a nursing curriculum to promote cultural competence and sensitivity.

Review of Instruments

For competency training, only two of the studies utilized named tools (Lelutiu-Weinberger et al., 2016; Strong & Folse, 2015). Lelutiu-Weinberger et al. (2016) employed the Modern Homophobia Scale, consisting of 12 items with a reliability alpha=0.93. They also used a Sexual Orientation Provider Competency Scale adopted and modified from the Transgender Competency Scale consisting of eight items with a reliability alpha=0.91.

Strong & Folse (2015) used three survey tools, a “modified” Attitudes Toward Lesbians and Gay Men Scale, Lesbian, Gay, Bisexual, and Transgender Healthcare Scale, and Lesbian, Gay, Bisexual, Transgender Knowledge questionnaire, but did not demonstrate the reliability and validity of those tools.

When reviewing the studies focusing on healthcare workers’ attitudes and beliefs, two studies did not leverage a tool to measure outcomes (Beagan et al., 2013; Hancock & Haskin, 2015). Tools utilized in the remainder of the studies included Attitudes Towards Lesbians and Gays Scale, Index of Attitudes Towards Homosexuals, Bouton's Index of Homophobia Scale, Heterosexual Attitudes Towards Homosexuality Scale, Physicians Attitudes Towards Patients with AIDS, Klein Sexual Orientation Grid, Sexual Orientation Belief Scale, and Modern Homonegativity scale. When considering these scales for this project, none measured specific transgender prejudices or beliefs.

Six studies on transgender experiences were qualitative without a measured tool. In these studies, the research investigators created the interview questions on topics that the study sought to explore. Two of the studies on transgender experiences had a quantitative design and leveraged the National Transgender Discrimination Survey as the study tool (Cruz, 2014; Grant et al., 2011). There is inconsistency among instruments used to explore attitudes towards LGBT patients, transgender cultural competency training, and transgender experiences.

Most studies lacked explicit and complete reliability and validity of the applied tools. This limitation prevents studies from being reproducible on a larger scale and has made determining the best assessment tool to measure transgender competency in healthcare workers challenging. For this reason, literature was reviewed exploring additional tools to measure transgender prejudice and transgender competency.

Davidson (2014) completed a review of various transgender prejudice scales. Scales reviewed included GTS, Transphobia Scale (TS), and Attitudes Toward Transgendered Individuals Scale (ATTIS). The GTS was created by Hill and Willoughby (2005) and is noted as being the first published scale. The GTS is the most commonly used study scale; as of 2014, it had been used 51 times in various studies (Davidson, 2014). The GTS consists of 32 questions, measuring transprejudice over three aspects: genderism, transphobia, and gender bashing (Hill & Willoughby, 2005). The GTS has an overall Cronbach's alpha of .96, (Davidson, 2014). Limitations of the scale include the lack of "transgender" verbiage. The questions are focused on attitudes towards transgender behaviors without explicitly referencing transgender in the question. This limitation can question if the scale is solely predicting transprejudice. Wrubleski (2010) completed a study to show how the GTS could measure a construct and not exclusively transprejudice. The study showed that the GTS predicted attitudes towards both transgender and homosexual individuals. Since the scale was not exclusive to transprejudice, Wrubleski (2010) questioned its validity. No other studies were noted to question the validity of the GTS to date.

The TS from Nagoshi et al. (2008) is another popular scale based upon transprejudice aspects of the GTS and Bornstein's (1998) Gender Aptitude Test. The TS captures attitudes towards transgender individuals in addition to attitudes that a gender nonconforming individual would experience (Davidson, 2014). The TS consists of nine questions and has an overall Cronbach's alpha of .82 (Nagoshi et al., 2008). Similar to the GTS, the TS does not use transgender terminology. Davidson (2014) concluded that the TS does not explicitly measure transprejudice, only attitudes towards gender nonconforming individuals.

The third most identified scale was the ATTTIS from Walch, Ngamake, Francisco, Stitt and Shingler (2012) (Davidson, 2014). The goal of ATTIS was to create a scale that measures

an individual's attitudes towards transgender individuals only. The ATTTIS is a 20-question scale and has Cronbach's alpha of .96 (Walch et al., 2012). The ATTTIS specifically defines transgender in the survey, and the intent is to evaluate individuals unfamiliar with transgender concepts. The ATTTIS was created with modification from the Heterosexual Attitudes Towards Homosexual scale (HATHS) from Larsen, Reed, and Hoffman (1980). A disadvantage of the ATTTIS is that the questions asked are the same questions from the HATHS, where homosexual verbiage was replaced with transgender verbiage (Davidson, 2014). In a review of the definitions of homosexuality and transgenderism, homosexuality is different and should not be interchangeable on a scale to measure transphobia.

Theoretical Framework

The research studies lacked stated theoretical frameworks to guide the research. Four of the studies identified specific theories. Sawing et al. (2017) selected the Social Cognitive Theory (SCT) framework for the study as SCT builds on the approach of behavioral capacity. SCT theorizes that before a healthcare worker acts accordingly, they must know what to do and how to do it. This study is based on the need to provide knowledge and skill in training resulting in improved attitudes, increased knowledge, and positive outcomes. Lindroth (2016) leveraged a social constructivist grounded approach with an understanding that different aspects connected to sexual health were explored. The study focused on humanistic considerations instead of the transgender title approach. Cornelius and Whitaker-Brown (2017) used the Relational-Cultural as the study looked at relationships and how fostering relationships impact transgender women's relationships within society and towards healthcare workers.

Dorsen (2012) noted in her review of literature, various theoretical frameworks were leveraged and consisted of Theory of Planned Behavior, Theory of Normative Belief, and

Minority Stress Model as guiding principles for research review on nursing attitudes towards LGBT patients. Seventy percent of the studies in Dorsen's review did not identify a specific theoretical framework, which was consistent with the findings in this review of the literature.

Summary of Findings

Common themes were noted among the systematic review of literature for all three specific topics. Experiences from transgender individuals are predominately negative and expose the lack of societal acceptance for individuals who identify as transgender. Through politics, news, media, and religion, the global society has contributed to heteronormative assumptions, resulting in the absence of awareness for cultures that are not part of the mainstream society. The transgender individuals' experiences are a result of social stigma associated with transgender culture, transgender healthcare interactions, and healthcare barriers. Negative experiences are noted when there is a disregard for the transgender individuals' community, family, or personal needs in various settings. Transgender individuals experience prejudice overtly and submissively, and these experiences are intensified through interactions with cisgender individuals who assume heteronormative beliefs and actions encompass all individuals.

Healthcare students and healthcare workers lack cultural awareness and sensitivity in transgender care. Transgender care is not formally taught in medical or nursing curricula, resulting in healthcare workers not being able to adequately care for transgender patients (Safer and Pearce, 2013; Strong and Folse, 2015). Literature supports increased transgender competency training as attitudes improved with improved knowledge and cultural competency. Increased transgender competency resulted in more comfort in caring for transgender individuals. Positive outcomes were seen with any intervention presented. Interventions ranged

from a 45-minute educational PowerPoint ® presentation (Strong & Folse, 2015), a medical certificate series consisting of 11 one-hour sessions (Sawning et al., 2017), and a semester elective course in medical school (Park & Safer, 2018).

Healthcare workers attitudes and beliefs about transgender individuals are varied based upon the amount of cultural exposure they have had with transgender individuals. An inability to communicate and act inclusively towards transgender individuals significantly impacts their healthcare experience. Lack of transgender competency is not an acceptable reason for lack of sensitivity to a transgender individual's needs. Nurses identified through their experiences of collaborating with patients, acknowledging stigmas, and ensuring inclusivity were successful in fostering a positive provider/patient relationship with transgender patients (Beagan et al., 2013). This literature review supported the need for transgender cultural awareness training for healthcare workers and aligned with the Purnell Model for Cultural Competence as the theoretical framework.

Critique and Implications

Jaffee et al. (2016) recommend increased healthcare provider education in addition to system supports that ensure appropriate, safe, and respectful care to promote and reduce current treatment gaps and prevent delays in care. Jaffee et al. (2016) exposes barriers and opportunities for improving cultural competency in healthcare workers caring for transgender individuals. Lack of educational outlets for healthcare workers will continue to have detrimental impacts on the health of transgender individuals within the community. Current general cultural education focuses on societal cisgender norms. There is a need for education specific to transgender health topics. Literature shows that healthcare professionals lack comfort and knowledge of

transgender needs when interacting and caring for transgender individuals (Park & Safer, 2018; Sawning et al., 2017; Strong & Folse, 2015).

Two of the studies reviewed had sample sizes less than 25 participants (Felsenstein, 2018; Park & Safer, 2018). Having small sample sizes puts into question the reproducibility of the study in a larger scale and whether all populations were adequately represented. The population of transgender individuals is small. There are concerns that healthcare professionals will not be able to maintain competency and will revert to past society approved behaviors. Exposure to transgender patients is limited; thus, interval refresher transgender cultural competency will be needed.

Healthcare workers can play an essential role in caring for transgender individuals in any healthcare setting. Leveraging inclusive language, reducing assumptions, and identifying one's individual biases are small steps to ensuring that healthcare facilities are welcoming and open to transgender patients. The project employed the basic concepts from Purnell's Model for Cultural Competence while performing cultural awareness training of transgender care for healthcare workers to reduce health disparities for transgender patients. Best practice among any culture begins with patient and provider collaboration, acknowledging discomfort around specific topics, and ensuring comprehensive systems and procedures to providing holistic care.

Discussion

The literature regarding transgender experiences with healthcare professionals and healthcare professionals' attitudes, knowledge, and comfort in caring for transgender individuals has identified a gap in education resulting in disparities of care for transgender patients. The literature supports a need for transgender awareness training among all healthcare professionals to achieve inclusiveness in healthcare for transgender patients. Standardized assessment tools to

measure outcomes with validity are lacking in the published literature. There are limited studies on cultural competence interventions for healthcare workers and outcomes impacting transgender care. The GTS is noted to be the first transgender-specific published scale and is the most widely used scale specially developed to measure transprejudice (Davidson, 2014). Based on the review of tools, the most reliable tool noted is the GTS, thus supporting the decision to use the GTS for this quality improvement project.

Various theoretical frameworks were utilized in the studies. All of the stated frameworks were considered; however, each framework lacked an all-encompassing holistic approach focusing on the various aspects of the transgender culture. Social Cognitive Theory supports the need to educate individuals on how they are expected to act and focuses on the culture of the healthcare organization when caring for transgender individuals. In SCT, organizational support is necessary for success in improving the outcomes of the project and is also necessary for success in this proposed improvement project. Additional theories including Relational-Cultural Theory help to understand connectedness that occurs between healthcare providers and transgender individuals and how the personal interactions cause social detriments to healthcare. The Purnell Model for Cultural Competence framework best aligned with this improvement project when considering transgenderism as a culture. The Purnell Model addresses various cultural aspects, including global society's perception of transgender individuals, communities with transgender individuals, families of transgender individuals, and the transgender individual. All aspects of a person's culture are considered when providing culturally sensitive care to transgender individuals.

Project Design

The project explored concepts shared by various studies (Keuroghlian et al., 2017; Lelutiu-Weinberger et al., 2016; Park & Safer, 2018; Porter & Krinsky, 2014; Sanchez et al., 2006; Sawning et al., 2017) to determine if providing an educational forum in addition to interaction in a safe, simulated learning environment with transgender individuals improves cultural awareness and competence in healthcare workers in the primary care setting. Using the Quality Improvement Model: Define, Measure, Analyze, Improve and Control (DMAIC), the project sought to answer the associated Problem, Intervention, Comparison, Outcome (PICO) question for this project is:

Can culturally sensitive educational training improve the healthcare professional's cultural awareness and sensitivity when caring for the transgender patient population?

In addition, exploring healthcare professional's awareness and sensitivity with caring for transgender individuals, additional data collection was obtained on the identified transgender patients within this practice.

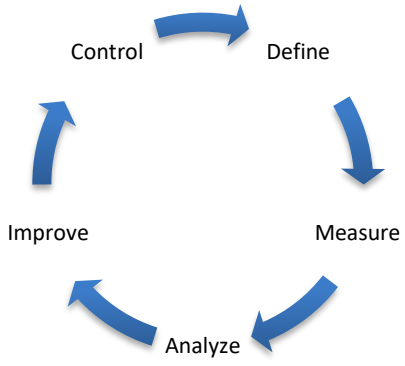

Figure 2 The DMAIC Quality Improvement Model

Define, Measure, Analyze, Improve and Control

Define. Based on the review of literature, the identified problem entails health disparities for transgender patients as evidence by lack of access to culturally competent, inclusive care. This was reflected in negative transgender experiences with healthcare providers and transgender individuals delaying or avoiding seeking care when necessary.

Measure. The quality improvement project analyzed initial healthcare professionals' bias and stereotypes towards transgender individuals and the impact to the transgender patients seeking care pre and post intervention.

Analyze. The literature review showed that the problem is influenced by healthcare worker's lack of cultural awareness and sensitivity for the transgender patient and is fueled by societal norms. The project analyzed intervention processes through the integrated review of literature to effectively promote cultural awareness and sensitivity of the transgender patient. Previously successful improvement projects consisted of interventions for the healthcare professionals including attendance in instructor led in-services, transgender specific seminars and semester coursework in medical school focusing on transgender competency.

Improve. The improvement project consisted of a 60- minute instructor led presentation on cultural awareness and sensitivity for the transgender patient. There were two presenters. One of the presenters was a cisgender female and the other presenter was a transgender male. Further details of the project are outlined in the "Procedure" section.

Control. In the control phase, if the improvement project is successful, a plan is identified in the conclusion of the "Project/ Sustainability" section of the "Project Design." Project will be replicated to cover all primary care locations in addition to cultural sensitivity

training for all healthcare workers within the institution. Ongoing efforts are being planned to consist of annual refresher trainings for all healthcare workers.

Goal/ Outcomes

The overall project objectives include increasing the healthcare professional's awareness and knowledge of caring for transgender patients by implementing and evaluating the impact of a culturally sensitive, transgender-focused, educational training in the primary care setting. Through cultural sensitivity training, the healthcare professional is able to create a safe, respectful, collaborative environment between the transgender patient and the healthcare team. Healthcare professionals participating in the project must identify their own unconscious bias towards transgender people and verbally discuss real life situations resulting in social prejudices and stereotyping of the transgender population. The healthcare professional is able to determine specific healthcare needs of the transgender patient and after the educational session is able to feel confident in communicating with transgender patients in a fashion that is free of assumptions and stereotypes related to heteronormativity.

Training materials and content were obtained through local resources including Jacksonville Area Sexual Minority Youth Network (JASMYN) and Can Community Health, and national resources, including Parents Family and Friends of Lesbians and Gays (PFLAG), The 519.org, and Gay, Lesbian, and Straight Education Network (GLSEN®).

Setting

This quality improvement project occurred in an outpatient primary care office where diverse populations of patients are cared for. The identified primary care office is associated with a Magnet and Joint Commission accredited organization. There are four primary care offices within the network; however, the improvement project focused on one office. The

identified office is a high-volume primary care clinic that has approximately 20 established transgender patients. This office is a medical home for 18,000 patients in the Jacksonville, Florida area. The patient population is growing and is expected to double in size over the next four years.

Population

This project included all healthcare professionals (RNs, LPNs, MAs, CAs, mid-level practitioners, Physicians, schedulers, desk attendants, laboratory personnel, and radiology technicians) who work in the primary care setting. RNs in the outpatient setting supervise the day-to-day functions of the work area, including supervisory tasks over the LPNs, MAs, and CAs and report to the nurse manager for any employee performance feedback or patient care concerns. RNs assess patients in person and over the telephone when unstable medical conditions arise. RNs create individualized plans of care for medically complex patients. LPNs and MAs prepare patients for provider visits in the office by obtaining history and basic vital signs, in addition to supporting the providers during office visits. LPNs communicate with patients over the telephone or electronically through the patient online portal, whether provider or patient initiated. Mid-level practitioners, in partnership with physicians see patients for office visits. Patient office visits consist of the establishment of care, annual evaluations, return follow-up visits, and acute illness appointments.

In addition to licensed and certified medical individuals, there are various skills of unlicensed allied-health employees. These support staff consist of CAs, schedulers, desk attendants, laboratory personnel, and radiology technicians. CAs facilitate paperwork management for the practice, including patient-specific authorization forms, faxing of records, data entering, and preparing prescription renewals for approval by the provider. Schedulers

schedule patient appointments for patients both over the telephone and in person. Desk attendants greet and check in patients for their appointments when arriving at the office. Laboratory personnel obtain patient laboratory specimens (blood and urine) and facilitate the transfer of the specimens to the general testing area. Radiology technicians obtain radiographic imaging of patients.

Individuals involved in any patient care, whether face-to-face or not, were invited to the educational session and was also invited to participate in the study. At the time that the study period began, there were two RNs, eight LPNs, two MAs, one CA, seven mid-level practitioners, seven physicians, two desk attendants, eight schedulers, two laboratory personnel, and one radiology technician employed at this primary care site. The expected sample size was planned to not exceed 36 participants. Before planning of training, support for training was obtained by the various leadership groups that manage staff in this office (Appendix E). These leadership groups include the office manager, nurse administrator, physician chair, laboratory supervisor and radiology supervisor.

Survey Instrument

The GTS (Appendix A; Figure 2 & 3) created by Hill and Willoughby (2005) was the survey tool used for pre- and post-intervention assessment. Permission was granted to use GTS by Springer Nature (Appendix A; Figure 1) for this specified quality improvement project. In addition to using GTS, specific demographic questions (Appendix B) identified the study population and correlational factors further. Study participants assigned themself an individual number in the first survey. The identification numbers were used during the completion of the three surveys and were matched by the statistician during the data analysis. The immediate and eight-week follow-up post-intervention survey consisted of only the GTS through REDcap®.

The GTS is a 32-item questionnaire using a seven-point Likert scale (strongly agree = 1, strongly disagree= 7) to gauge how participants feel about a specific question/topic. The GTS consists of two subscales measuring genderism/ transphobia and gender bashing (Hill & Willoughby, 2005). Research shows that these two subscales have a high correlation with one another (Davidson, 2014).

Procedure

The transgender educational program was prepared and presented in Fall 2019, after necessary proposal defense committee and institutional review board approvals were obtained (Appendix F & G). The study leveraged pre- and post- study design. The pre- and post-intervention survey link was distributed through email consent using the REDcap® software program (Appendix C & D) for a total of three times. The educational training was recommended for all healthcare employees at this primary care office. The opportunity to complete the pre- and post-intervention survey was voluntary. The quality improvement project duration length was nine weeks from beginning to end. The final survey was completed eight weeks after the educational training.

The principal investigator sent an email to all employees assigned to the primary care email distribution list one week prior to the scheduled improvement intervention (a one-hour educational presentation) outlining the study, consent to participate, timeline, and a formal request to participate in the study (Appendix C). The invitation email consent contained a link to the online REDcap® survey. The REDcap® survey was completed anonymously by the participants to assess for cultural bias, attitudes, and knowledge regarding transgender individuals. At the beginning of the questionnaire, the first question included the participant acknowledging receipt of the consent to participate and by selecting “yes” to the question; the

participant consented to participation and completes the questionnaire. The participants had one week to complete the pre-training survey.

The GTS and specific participant demographics were collected during the pre-intervention survey. Demographics consisted of the survey participants' identification number, gender, age, highest educational degree obtained, current role, years worked in the healthcare field and previous exposure to transgender individuals through family or friend relationships. These demographics were selected as essential to determine any correlations between gender, age, education, and previous transgender experience and how these factors may influence transprejudice.

In week two, the principal investigator female (cisgender) in partnership with a transgender male co-presented a 60-minute educational, interactive presentation about cultural awareness and sensitivity in transgender care (Appendix H). The content included basic transgender terminology, including accurate and respectful language. Concepts were provided regarding gender identity and gender expression and the difference between these terms. The presentation explored various acceptable gender pronouns. The presentation focused on appropriate and inappropriate conversations and techniques for cisgender individuals to engage in when caring for or interacting with transgender patients.

The presentation material was displayed in a PowerPoint® presentation format and was provided to the participants in a printed handout. Additionally, the educational session was videotaped for individuals that were unable to attend in person or as a resource or refresher. The information provided within the presentation was obtained from various local and national transgender organizations. To ensure that the educational presentation content was accurate and

relevant to the LGBT community, two individuals who identify as LGBT reviewed the presentation. One of the reviewers was transgender male.

The principal investigator secured a transgender individual who participates in public speaking to be a subject matter expert discussing transgender culture for this project. The transgender individual is 18 years old and has begun his college studies in political science. He is passionate in increasing transgender awareness among healthcare providers and agreed to be part of the cultural awareness and sensitivity training. The informative session provided to the healthcare professionals was face-to-face with the PI and the transgender male. Having the transgender volunteer present allowed the healthcare participants to ask questions about transgender care. The transgender participant was critical for the project to ensure the accuracy of the information provided in addition to being able to elaborate on unscripted transgender topics that arose during the educational session. The educational session began with a PowerPoint® presentation, followed by dialogue time with healthcare workers and the transgender participant reviewing safe and threatening healthcare experiences.

After the completion of the face-to-face educational session, a REDcap® post-intervention survey was sent through the department email distribution list and was available for one week to assess for improvement in pre-intervention survey scores as they relate to attitude, awareness, and sensitivity of transgender individuals. The post-intervention survey only utilized the survey instrument (GTS) and the unique survey identification number. Since survey participants completed the survey anonymously, all the employee- specific identification as to who completed the initial survey was not known, thus all individuals who were assigned to the department's email distribution list received the request to complete the post-intervention survey. To evaluate long-term effectiveness of the project, eight weeks after the second survey was

emailed, a third survey was sent. The third survey consisted of the survey instrument (GTS) and the unique survey identification number. After the intervention project concluded, the principal investigator reviewed the data from the pre- and post-intervention surveys.

Conclusion of the Project/ Sustainability

The project was assessed to determine if the stated objectives and goals were met and if the metrics in employee awareness and sensitivity were substantial. Findings of the project will be shared with multiple groups, including primary care, specialty departments, LGBT employees resource group, nursing management, senior leadership, and local and enterprise diversity and inclusion chapters within the organization. Future plans for the QI include sharing through a quality improvement poster presentation at either a quality improvement or diversity-themed conference and through pursuit of a journal publication. The project is successful; plans included rolling out cultural sensitivity training throughout the organization. The principal investigator has sought support from the LGBT employee resource group. Implementation of transgender sensitivity training will become a standard of practice within the institution and will begin with new hire orientation. The presentation was videotaped for the purpose to increase visibility and as a reference for staff that were unable to attend. During the first roll out, the PI will facilitate the effort; however, after refinement of the training occurs, training ownership will be transferred to selected employees of the LGBT employee resource group who are interested in educating peers about transgender sensitivity care.

Ethical Considerations

Institutional review board approval was procured from Jacksonville University and the project improvement hospital prior to project implementation (Appendix F & G). All project participants were abreast of the project purpose and intentions. Participants received an

electronic version of the informed consent in an email prior to participating in each survey (Appendix C). The training was recommended for the staff in the primary care practice; additionally, participating in the pre- and post-intervention surveys were optional. Each participant had the opportunity to decline participation by not completing the surveys. The participants completed the surveys on their own time during each specified week.

The GTS and participant demographics including survey identification number were collected during the pre-intervention survey. The two post-intervention surveys only utilized the GTS and survey identification number. The pre- and post-intervention surveys were matched to assess for changes in biases. The survey link was distributed through email. The pre-intervention survey was available for the participants to complete one week before the intervention. The first post-intervention survey was available the day after the educational session and had a completion window of one week. The final survey was available for completion eight weeks after the educational lecture.

The PI is the nurse manager for several of the staff who may participate in the project. To prevent coercion of the participants, requests to participate in the surveys were sent through an email to all employees assigned to the departmental distribution list. To protect the confidentiality of the participants, the pre-intervention survey requested the participant to select a four- digit identifier. This same four- digit identifier number was used for completion of the post-intervention surveys and ultimately matched by the statistician. All surveys were administered electronically through REDCap®.

Data is stored in the departmental share drive for the Department of Family Medicine in addition to an encrypted external drive that the student is maintaining possession of. To enter the departmental share drive, one must have access to the organization's computer system, the share

drive, and the specific folder. An assigned folder within the share drive is restricted for use. Access to the completed surveys is limited to the student and a designated Registered Nurse Team Leader in the department. Data will be maintained and archived for five years to reference as needed. The information is de-identified, and individual results are not shown. Prior to formally releasing the results, the data was reviewed by the Doctorate of Nursing Practice faculty chair and statistician.

Protecting the rights and privacy of transgender patients is the top priority of this project. Increasing awareness among healthcare professionals about the transgender patient population may have potential implications that will need to be monitored. The training focused on the adult transgender patient and not minor transgender patients. Transgender minors have needs that are similar, yet different from that of transgender adults. The transgender minors are not included in this project due to the need to protect the vulnerable, underage population from project implementation. The transgender youth has specific needs that will not be addressed in this project. Future studies should include transgender youth.

Working with a transgender person for the educational presentation was risky based upon the biases that the learners may possibly verbalize. During the presentation, the PI accidently referenced terminology in an inappropriate fashion. The transgender co-presenter casually corrected the cisgender PI and the presentation continued on. This example showed the attendees that accidents might occur when referencing a transgender formally, however if misrepresenting occurs, apologize and move on. The learners were willing to learn and sought to understand transgender healthcare barriers. Having a presenter for the training with the transgender background could have resulted in a traumatic experience for the transgender presenter. The identified transgender individual was selected for his significant experience in

public speaking, and participation in various community forums speaking on transgender rights (TEDX FSCJ Salon; "What are Human Rights?" on February 7, 2019, and "Supporting LGBTI Youth: "Person" Screening and Panel Discussion" on April 22, 2019). In his previous speaking engagements, he was able to effectively re-direct the audience when discussions became inappropriate. Identifying a transgender volunteer who understands that interactions are not scripted and provide a learning experience for the healthcare team was critical.

The responses and reactions from the healthcare team during the simulation exercises could not be personal or destructive to the well-being of the transgender presenter. To prevent inappropriate responses by participants, the organization has standard professional expectations aligning with the organization's service values of respect, integrity, compassion, healing, teamwork, innovation, excellence and stewardship. These service values are expected to be modeled by employees when representing the organization. At the beginning of the presentation, ground rules were established, and the organization's service values were reviewed. The presentation was a safe space for all. A contingency plan was in place in the event that the organization's service values were not honored. At that time the principal investigator would re-direct the interactions and conversations for the safety of all participants.

Evaluation Plan

All data was recorded and transferred in an Excel file to the Biostatistician for analysis. Demographics, pre- and post- GTS survey data was summarized using descriptive statistics and/ or frequency tables. Continuous variables were summarized by n, mean, standard deviation, median, and range. Categorical variables were summarized by frequency count and percentage of participants within each category. Bar charts, pie charts, histograms, and box and whisker

plots have been considered for data visualization as appropriate. The GTS survey items (see Appendix A, Figure 3) were summarized individually by the intervention period (pre vs. post). GTS scores were first calculated for each participant and then summarized by the intervention period (pre vs. post). GTS score were calculated as follow:

1. Add up answers to questions 5, 8, 23, and 26. For the rest of the questions, reverse the answers:
    - 1=7
    - 2=6
    - 3=5
    - 4=4
    - 5=3
    - 6=2
    - 7=1
2. After the rest of the answers are reversed, calculate the final score by adding up all the answers.

Univariate statistical tests were used to examine the difference between pre- and post- GTS scores. Paired *t*- tests were used for continuous variables and Wilcoxon signed rank tests for ordinal data.

The GTS pre- and post- training intervention scores have been further analyzed using a multivariate linear mixed model for repeated measure evaluating the effect of the intervention. Each model was adjusted for demographic variables as risk factors. The correlation between pre- and post- scores from the same participant was modeled using an unstructured covariance matrix (UN). Comparisons between the pre- and post- intervention scores were conducted using *t*- tests on least-squared means (i.e. adjusted means from the model) at 5% significance level. All statistical analyses have been conducted using R, version 3.5 or higher (R Foundation for

Statistical Computing, Vienna, Austria), and/-or SAS, version 9.4 or higher (SAS Institute Inc., Cary, NC).

Findings

The purpose of this quality improvement project was to increase healthcare professional's awareness and knowledge of caring for transgender patients in the primary care setting by implementing and evaluating the impact of a culturally sensitive; transgender-focused, educational training in the primary care setting. Using a pre and post study design, a survey was administered at the beginning of the study to assess participants' cultural bias, attitudes, and knowledge towards transgender individuals using GTS scale. After the baseline survey was completed, participants went through a 60-minute training session about cultural competency in transgender care. After the training, post surveys using GTS scale were administered immediately after the intervention and 8 weeks after the intervention. Participants' demographics (gender, age, highest degree obtained, current role, years worked in the healthcare field and previous exposure to transgender individuals through family or friend relationships) were also collected during the study. The plan was to enroll 36 participants from a primary care office that has approximately 20 established transgender patients. All survey results are displayed in Appendix J.

Results

The total number of participants was 24. Of them, 23 (~96%) were females. The age was between 25-44 years old for the majority (75%) of participants. The remaining participants were 45 years or older. Eight participants (33%) had a bachelor's degree while 4 (17%) had Doctorate. The role of 7 (29%) participants was Schedule/Front Desk Support, 5 (21%) were LPNs, 4 (17%) were RNs and 2 (8%) were physicians. The number of years of experience of 14 (58%) participants was between 1 to 10 years, while 5 (21%) participants had over 20 years of experience. Among

participants, 10 (48%) had previous exposure to transgender individuals through family or friend relationship. All demographics data are summarized in Table 1 in Appendix J.

Among the 24 participants, only 5 have successfully completed the pre-intervention (pre), and immediately after the intervention (post) surveys. Among those, only 3 successfully completed the 8-weeks post survey (8-weeks). In total, there were 13 participants who completed the pre survey, 11 completed the post-survey and 9 completed the 8-weeks survey. The summary results of the complete GTS survey by item and intervention period are reported in Appendix J. The summaries of GTS scores are summarized in Table 1. In the summary of results, most participants disagreed with negative items and agreed with positive items prior to the intervention. For example, all the 13 (100%) participants strongly disagreed or disagreed with the statement "**I have behaved violently toward a woman because she was too masculine".** While 13 (77%) strongly agreed or agreed with the statement **"If a friend wanted to have his penis removed in order to become a woman, I would openly support him"**. The remaining 3 participants were either somewhat agreed or neutral. This showed that the baseline attitude toward transgender patients was positive even prior to the intervention. The average (SD) GTS score before the intervention was 59.2 (20.53) compared to 56.9 (19.17) immediately after the intervention and 48.3 (13.09) at 8-weeks. An improvement by 2.3 and 10.9 points on GT scale from baseline at immediately and 8-week post-interventions; respectively (i.e. lower score is better). The results are summarized in Table 1. The mean change in GTS scores from baseline immediately after the intervention was -5.4 among the 5 participants who completed pre and immediately after intervention surveys. Among the 3 patients who completed the 3 surveys, the means change from baseline were -10 and -20 points on GT scale at immediately after the intervention and at 8-weeks post intervention, respectively.

Table 1 Summary of Genderism and Transphobia Scores (GTS)

Parameter	Pre N=13	Post N=11	8-week N=9
GTS Score			
n	13	11	9
Mean (SD)	59.2 (20.53)	56.9 (19.17)	48.3 (13.09)
Median	54.0	54.0	47.0
Min - Max	35.0 - 105.0	34.0 - 88.0	33.0 - 77.0

SD: standard deviation, Min: Minimum, Max: Maximum.

The GTS scores were analyzed using a linear mixed model with participant as a random effect and intervention period as a fixed effect. Age, gender, role, education level, number of years of experience and transgender exposure were included in the model as risk factors. None of the demographics' factors were found to have a statistically significant effect on the change in GTS scores across the intervention periods. The comparisons between the GTS scores before and after the intervention were conducted using t-tests on least square means (i.e. adjusted means). The results are summarized in Table 2. The adjusted mean differences between the pre and post interventions were -5.4 and -14.5 at immediately and 8-weeks after the intervention; respectively. The reduction in GTS scores by an average of 5.4 immediately after the intervention was not found to be statistically significant (p-value = 0.2654 > 0.05) at 5% significance level. While the reduction by an average of 14.5 at 8-weeks post-intervention was found to be statistically significant with a p-value of 0.0418 (< 0.05). All the results are summarized in Table 2 for more details.

Table 2. Comparisons between GT scores

Assessment Period	LS-Mean	StdErr	95% Lower	95% Upper	P-value	Significantly different?

Pre	61.4	4.80	51.5	71.2		
Post	56.0	4.69	46.2	65.8		
8-Weeks	46.8	5.67	35.1	58.5		
Difference (Post vs. Pre)	-5.4	4.49	-15.6	4.9	0.2654	No
Difference (8-Weeks vs. Pre)	-14.5	6.23	-28.4	-0.7	0.0418	Yes

LS-Mean: Least-square mean (i.e. adjusted mean), StdErr: Standard Error
The analysis was conducted using linear mixed models
A significant difference is concluded if the adjusted Tukey p-value is below 0.05 (p-value < 0.05).

Conclusion

The cohort of participants in the study was found to have a low GTS score at baseline indicating awareness and positive attitude toward transgender patients was positive even prior to the intervention. The training session improved the GTS scores by decreasing the average score from baseline by 5.4 immediately after the intervention and by 14.5 after 8-weeks post-intervention. The reduction at 8-weeks was found to be statistically significant at 5% significance level. Additionally, the No-Show / Cancellation rate among patients within this practice during the designated assessment period pre and post intervention could be considered as indicators of possible patient visit acceptance among transgender patients.

Project Outcomes

In a society where an emphasis evolves around equal rights and promoting an environment where diversity and inclusivity is expected and not tolerated, this quality improvement project underscores the need of cultural sensitivity training for healthcare professionals. This project was successful in increasing awareness and sensitivity by reducing the healthcare providers genderism and transphobia biases, leveraging GTS to measure negative and positive feelings healthcare providers have towards transgender individuals. After the intervention, transgender patients completed a higher percentage of visits as compared to the pre-

intervention assessment phase. With the improvement in GTS scores 8 weeks post intervention, the data suggests that the learning was impactful enough to have sustained results.

This educational training was recorded and to date has been viewed by 152 employees enterprise wide. In a community where the workforce and the social climate is constantly changing, one cultural sensitivity training session is not enough. Although positive results were seen 8 weeks' after intervention, additional interventions are needed to ensure sustained awareness and sensitivity. To maintain success, the culture of the organization and the climate of the leaders need to model and support diversity and inclusion endeavors.

In review of stated project questions:

Does cultural awareness training for allied health staff on the topic of transgender care promotes confidence in the healthcare professional's ability to care for transgender patients?
Based on verbal feedback from various participants, they "appreciated the dialogue with a transgender representative to allow them to ask questions to reduce assumptions" in a safe environment. One participant waited after the presentation to share a previous transgender interaction with the presenters and stated that she now better understood how to approach future situations as a result of the training session.

Can unconscious and conscious bias of allied health staff concerning an individual's assumptions of transgender lifestyle be suppressed through cultural awareness to support an inclusive patient care environment for transgender patients?
Cultural awareness in regards to transgender care was provided to the attendees. Real life stories were shared among presenters. The impacts of the GTS scores post intervention were noted even eight weeks after and correlates that awareness supports sensitivity.

Can an individual's sensitivity and attitudes change when educational opportunities are provided?

Yes, this was noted based on the post survey GTS scores in addition to verbal understanding and appreciation of the presentation by participants.

Can culturally sensitive educational training improve the healthcare professional's cultural awareness and sensitivity when caring for the transgender patient population?

Based upon the GTS scores pre and post intervention the cultural sensitive training with a transgender co-presenter improved the attendees' cultural awareness for transgender patients.

Lessons Learned

Attendance in person of the training was challenging as some staff were absent from work due to conflicting responsibilities, absences, or were involved in face-to-face patient care activities. Obtaining voluntary participation among staff for the consistent three-part survey was challenging. Various email reminders were sent out at set time frames. The sample size/ response rate was low. If additional participants had followed through with all three surveys and attended the training session, the data may have yielded different results. Additionally, as the study design was a pre-post assessment spanning over eight weeks, new hires interested in the work were unable to participate in the GTS assessment.

Unintended Consequences

The PI is passionate about diversity and inclusion, specifically for the transgender population and has articulated this passion to others in the work area through on the spot education, advice on approaches, and general discussions around diversity and inclusive behavior at work. The PI has been involved in various activities to support the transgender community within and outside of the employer. The PI is a contributor to the diverse

recruitment of qualified healthcare professionals to supporting a work environment that is diverse and inclusive. This may have resulted in higher than expected results initially as the participants are aware of the passion and had become less bias over time by nature of workplace climate.

Evaluation of Framework

The Purnell Model for Cultural Competence framework aligned well with this improvement project as the foundation of the intervention. The transgender community is considered a culture. Addressing various cultural aspects, including global society's perception of transgender individuals, communities with transgender individuals, families of transgender individuals, and the transgender individual's feelings and actions were critical foundations to the sensitivity training. Additionally, using a transgender and a cis-gender presenter for the sensitivity training was a valuable intervention that kept attendees engaged. Dialogue on "dos and don'ts" were effective in this learning session. Real life examples were provided and allowed the attendees to practice their new approaches directly after the sensitivity training.

Initially, the Social Cognitive Theory approach was not identified and the best framework however could have been leveraged as an influencer to explain the GTS scores pre-intervention. In observance of the "unintended consequences" section, the author questions if SCT was what resulted in higher (positive) survey scores pre-intervention. Additionally, having a 60-minute educational training on appropriate conversations and not appropriate conversations could lend to a learners acquisition of knowledge through the interactions, observations and experiences through the pre-during and post assessment phase of the project.

Recommendations for Future Practice

Cultural sensitivity training and having an active awareness of one's bias is critical as it relates to patient care and outcomes. For some individuals that are personally involved or know of a transgender person, this change in sensitivity might be less than other healthcare workers that have had limited interactions with transgender individuals. Leveraging change management strategies when presenting cultural sensitivity training could promote the willingness and engagement of the audience. Various change management models include Awareness, Desire, Knowledge, Ability, and Reinforcement (ADKAR) model. Leaders can influence employee's actions and behaviors. Involve key influential leaders in an initiative to articulate the why behind the ask is important. Obtaining a larger sample size is needed. If leveraging the video recording, the participant could individualize the timing of the pre-post survey based upon when the video is planned to be viewed, negating the need to fully have an in-person meeting time. This quality improvement project strived to protect the confidentiality and potential emotional distress that could occur if a transgender patient was outed by being asked to complete a satisfaction survey. For this reason, there was not an aspect of transgender patient satisfaction. Obtaining an aspect of transgender experiences and surveys around personal experiences within the organization would be helpful in quantifying the transgender patient experiences.

Implications for Practice

The outcomes of this project support the vision outlined by the PI and can guide other diversity and inclusion champions to address bias and prejudices that occur within our healthcare system. This project focused on transgender sensitivity training, however could be aligned to support various cultures that experience inequality in healthcare. A longitudinal study with additional interventions to measure long-term impacts of diversity and inclusion within the organization's culture could be beneficial to assess the inclusivity of the work environment

culture. Additionally, it would be important to assess the organization's level of support for cultural changes as a potential contributing factor of successful diversity and inclusion activities within a healthcare institution. Within nursing practice, promoting inclusivity not only with patients but peers will change society's perception and create a healthcare environment that is welcoming for all patient populations.

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Appendix A

Figure 1. Permission for the use of GTS

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Figure 2. GTS Scale Instructions

INSTRUCTIONS: Please indicate how you respond to the following statements using the 7-point scale described below. Please respond THOUGHT- FULLY and HONESTLY to each question. It is important to indicate how you really feel NOW and not how you might have felt in the PAST. Some of the situations may be unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses. THERE ARE NO RIGHT OR WRONG ANSWERS.

Figure 3. GTS Scale

GTS Scale **543**

Strongly agree	Agree	Somewhat agree	Neutral	Somewhat disagree	Disagree	Strongly disagree
1	2	3	4	5	6	7

Circle the number that best indicates how you feel.

1. I have beat up men who act like sissies	1	2	3	4	5	6	7
2. I have behaved violently toward a woman because she was too masculine	1	2	3	4	5	6	7
3. If I found out that my best friend was changing their sex, I would freak out	1	2	3	4	5	6	7
4. God made two sexes and two sexes only	1	2	3	4	5	6	7
5. If a friend wanted to have his penis removed in order to become a woman, I would openly support him	1	2	3	4	5	6	7
6. I have teased a man because of his feminine appearance or behavior	1	2	3	4	5	6	7
7. Men who cross-dress for sexual pleasure disgust me	1	2	3	4	5	6	7
8. Children should be encouraged to explore their masculinity and femininity	1	2	3	4	5	6	7
9. If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman	1	2	3	4	5	6	7
10. Men who act like women should be ashamed of themselves	1	2	3	4	5	6	7
11. Men who shave their legs are weird	1	2	3	4	5	6	7
12. I can not understand why a woman would act masculine	1	2	3	4	5	6	7
13. I have teased a woman because of her masculine appearance or behavior	1	2	3	4	5	6	7
14. Children should play with toys appropriate to their own sex	1	2	3	4	5	6	7
15. Women who see themselves as men are abnormal	1	2	3	4	5	6	7
16. I would avoid talking to a woman if I knew she had a surgically created penis and testicles	1	2	3	4	5	6	7
17. A man who dresses as a woman is a pervert	1	2	3	4	5	6	7
18. If I found out that my lover was the other sex, I would get violent	1	2	3	4	5	6	7
19. Feminine boys should be cured of their problem	1	2	3	4	5	6	7
20. I have behaved violently toward a man because he was too feminine.	1	2	3	4	5	6	7
21. Passive men are weak	1	2	3	4	5	6	7
22. If a man wearing makeup and a dress, who also spoke in a high voice, approached my child, I would use physical force to stop him	1	2	3	4	5	6	7
23. Individuals should be allowed to express their gender freely	1	2	3	4	5	6	7
24. Sex change operations are morally wrong	1	2	3	4	5	6	7
25. Feminine men make me feel uncomfortable	1	2	3	4	5	6	7
26. I would go to a bar that was frequented by females who used to be males	1	2	3	4	5	6	7
27. People are either men or women	1	2	3	4	5	6	7
28. My friends and I have often joked about men who dress like women	1	2	3	4	5	6	7
29. Masculine women make me feel uncomfortable	1	2	3	4	5	6	7
30. It is morally wrong for a woman to present herself as a man in public	1	2	3	4	5	6	7
31. It is all right to make fun of people who cross-dress	1	2	3	4	5	6	7
32. If I encountered a male who wore high-heeled shoes, stockings, and makeup, I would consider beating him up	1	2	3	4	5	6	7

Note. All items except questions 5, 8, 23, and 26 are reverse scored.

Appendix B

Demographic Data

Identification Code Date of Birth	
Gender	Male Female Other
Age	18-24 Years 25-34 Years 35-44 Years 45-54 Years Over 55 years
Highest Degree obtained	Some High School, no diploma High School graduate or equivalent (ex. GED) Some College, no degree Associate Degree Bachelor's Degree Master's Degree Doctorate Degree
Current Role	Secretary Scheduler/ Front Desk Support Ancillary Support Staff (Phlebotomist, Radiology, etc.) Clinical Assistant/ Medical Assistant Licensed Practical Nurse Registered Nurse Advanced Practice Provider Physician Other
Years working in the healthcare field	<1 Year 1-5 Years 6-10 Years 11-15 Years 16-20 Years >20 years
Do you have any transgender family or friends	Yes No

Appendix C

Dear Prospective Participant,

You have been asked to complete this online survey as part of a doctorate nursing project conducted by **Shannon Crowe MSN, RN and Mary Gipson, PhD, FNP-BC, CCRN-K** at **Jacksonville University**. The project is called **Disparities in Health Care for the Transgender Population** and is designed to determine if focused transgender cultural awareness training promotes confidence and influences the ability of the health care professional to interact with the transgender patient.

If you agree to be part of the project, you will be asked to complete three online surveys: One immediately prior to the Transgender Cultural Awareness Training, one immediately after the Transgender Cultural Awareness Training, and one eight weeks later. The Transgender Cultural Awareness Training is 60 minutes in duration. Completing each survey will take approximately10 minutes. Your participation in the project or your responses on the surveys will be anonymous. There will be no way to connect your responses with you because the surveys will not ask for or contain any identifying information such as your name, email address, or IP address. The survey will ask that you assign yourself with a four-digit number and use that number each time you complete the survey so that the surveys can be compared. Data will be stored in a password protected electronic format. Your participation in this project is voluntary. Should you agree to participate you may withdraw at any time. If you decide not to participate in this study, or if you withdraw from participating at any time, you will not be penalized. Participating in the Transgender Cultural Awareness Training implemented by the department as an effort to improve the transgender patient experience does not imply that you are participating in the study. Please note that if you choose not to complete the surveys, the principal investigator will not know. You will still receive a total of three survey requests for the duration of the survey period, however you need not to complete them.

If you have any questions about this quality improvement study before or after your complete the survey, please contact Shannon Crowe MSN, RN (904) 370-4343 or by email: smercer@jacksonville.edu and Mary Gipson, PhD, FNP-BC, CCRN-K (904) 256-7257 or by email: mgipson@ju.edu. If you have any concerns or questions about your rights as a participant in this quality improvement project, please contact the Jacksonville University Institutional Review Board at (904) 256-7151 or juirb@ju.edu.

This quality improvement project is being conducted under the direction of Shannon Crowe MSN, RN (Jacksonville University Doctoral Nursing Student) and Mary Gipson, PhD, FNP-BC, CCRN-K (Professor) at Jacksonville University Keigwin School of Nursing located at 2800 University Blvd. N., Jacksonville, Florida 32211 and has been approved by the Jacksonville University Institutional Review Board (JU IRB #2019-055).

By completing and submitting the survey, you affirm that you are at least 18 years old and that you give consent for **Shannon Crowe MSN, RN and Mary Gipson, PhD, FNP-BC, CCRN-K** to use your answers in their quality improvement study. The results of this study will be shared

with the organization's Diversity and Inclusion department and will be submitted for presentation and publishing.

Clicking on the survey link below indicates that you have read the above information, you voluntarily participate and you are at least 18 years of age. Clicking on the disagree button means that you do not wish to participate. In that instance, thank you for your time and consideration.

☐I agree to participate.

☐I do not wish to participate. Thank you for your time.

Shannon Crowe MSN, RN and Mary Gipson, PhD, FNP-BC, CCRN-K

Appendix D

Confidential

Demographics and GTS (1st survey)

4 Digit Identification Code (use same code for all three surveys). Please remember this code for future reference.	_____
Enter your Date of Birth MM/DD/YYYY	_____
I have read the informed consent. I am over the age of 18 years. I voluntarily agree to participate.	◯ Yes ◯ No
Gender	◯ Male ◯ Female ◯ Other
Age	◯ 18-24 years ◯ 25-34 years ◯ 35-44 years ◯ 45-54 years ◯ >54 years
Highest Education	◯ Some High School, No Diploma ◯ High School Graduate or Equivalent (ex. GED) ◯ Some College, No Degree ◯ Associate Degree ◯ Bachelor's Degree ◯ Master's Degree ◯ Doctorate Degree
Current Role	◯ Secretary ◯ Scheduler/ Front Desk Support ◯ Ancillary Support (ex, Radiology, Phlebotomist) ◯ Clinical Assistant/ Medical Assistant ◯ Licensed Practical Nurse ◯ Registered Nurse ◯ Advance Practice Provider ◯ Physician ◯ Other
Years Working in the Healthcare Field	◯ < 1 year ◯ 1-5 years ◯ 6-10 years ◯ 11-15 years ◯ 16-20 years ◯ >20 years
Do You Have Any Transgender Family or Friends	◯ Yes ◯ No

Confidential

Please indicate how you would respond to the following statements using the 7-point scale described. Please respond THOUGHTFULLY and HONESTLY to each question. It is important to indicate how you really feel NOW and not how you might have felt in the PAST. Some of the situation maybe unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses. THERE ARE NO RIGHT OR WRONG ANSWERS.

	Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
I have beat up men who act like sissies	○	○	○	○	○	○	○
I have behaved violently toward a woman because she was too masculine	○	○	○	○	○	○	○
If I found out that my best friend was changing their sex, I would freak out	○	○	○	○	○	○	○
God made two sexes and two sexes only	○	○	○	○	○	○	○
If a friend wanted to have his penis removed in order to become a woman, I would openly support him	○	○	○	○	○	○	○
I have teased a man because of his feminine appearance or behavior	○	○	○	○	○	○	○
Men who cross-dress for sexual pleasure digust me	○	○	○	○	○	○	○
Children should be encouraged to explore their masculinity and femininity	○	○	○	○	○	○	○
If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman	○	○	○	○	○	○	○
Men who act like women should be ashamed of themselves	○	○	○	○	○	○	○
Men who shave their legs are weird	○	○	○	○	○	○	○
I cannot understand why a woman would act masculine	○	○	○	○	○	○	○
I have teased a woman because of her masculine appearance or behavior	○	○	○	○	○	○	○

Confidential

Children should play with toys appropriate to their own sex	○	○	○	○	○	○	○
Women who see themselves as men are abnormal	○	○	○	○	○	○	○
I would avoid talking to a woman if I knew she had a surgically created penis and testicles	○	○	○	○	○	○	○
A man who dresses as a woman is a pervert	○	○	○	○	○	○	○
If I found out that my lover was the other sex, I would get violent	○	○	○	○	○	○	○
Feminine boys should be cured of their problem	○	○	○	○	○	○	○
I have behaved violently towards a man because he was too feminine	○	○	○	○	○	○	○
Passive men are weak	○	○	○	○	○	○	○
If a man wearing make-up and a dress, and also spoke in a high voice, approached my child, I would use physical force to stop him	○	○	○	○	○	○	○
Individuals should be allowed to express their gender freely	○	○	○	○	○	○	○
Sex change operations are morally wrong	○	○	○	○	○	○	○
Feminine men make me feel uncomfortable	○	○	○	○	○	○	○
I would go to a bar that was frequented by females that used to be males	○	○	○	○	○	○	○
People are either men or women	○	○	○	○	○	○	○
My friends and I have often joked about men who dress like women	○	○	○	○	○	○	○
Masculine women make me feel uncomfortable	○	○	○	○	○	○	○
It is morally wrong for a woman to present herself as a man in public	○	○	○	○	○	○	○
It is all right to make fun of people who cross-dress	○	○	○	○	○	○	○

Confidential

If I encounter a male who wore high-heeled shoes, stockings and make-up, I would consider beating him up	○	○	○	○	○	○	○

Confidential

GTS Only (2nd survey)

4 Digit Identification Code (use same code for all three surveys). Please remember this code for future reference.	_____
4 Digit Identification Code (use same code for all three surveys). Please remember this code for future reference	_____

Please indicate how you would respond to the following statements using the 7-point scale described. Please respond THOUGHTFULLY and HONESTLY to each question. It is important to indicate how you really feel NOW and not how you might have felt in the PAST. Some of the situation maybe unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses. THERE ARE NO RIGHT OR WRONG ANSWERS

	Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
I have beat up men who act like sissies	○	○	○	○	○	○	○
I have behaved violently toward a woman because she was too masculine	○	○	○	○	○	○	○
If I found out that my best friend was changing their sex, I would freak out	○	○	○	○	○	○	○
God made two sexes and two sexes only	○	○	○	○	○	○	○
If a friend wanted to have his penis removed in order to become a woman, I would openly support him	○	○	○	○	○	○	○
I have teased a man because of his feminine appearance or behavior	○	○	○	○	○	○	○
Men who cross-dress for sexual pleasure digust me	○	○	○	○	○	○	○
Children should be encouraged to explore their masculinity and femininity	○	○	○	○	○	○	○
If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman	○	○	○	○	○	○	○

Confidential

Men who act like women should be ashamed of themselves	○	○	○	○	○	○	○
Men who shave their legs are weird	○	○	○	○	○	○	○
I cannot understand why a woman would act masculine	○	○	○	○	○	○	○
I have teased a woman because of her masculine appearance or behavior	○	○	○	○	○	○	○
Children should play with toys appropriate to their own sex	○	○	○	○	○	○	○
Women who see themselves as men are abnormal	○	○	○	○	○	○	○
I would avoid talking to a woman if I knew she had a surgically created penis and testicles	○	○	○	○	○	○	○
A man who dresses as a woman is a pervert	○	○	○	○	○	○	○
If I found out that my lover was the other sex, I would get violent	○	○	○	○	○	○	○
Feminine boys should be cured of their problem	○	○	○	○	○	○	○
I have behaved violently towards a man because he was too feminine	○	○	○	○	○	○	○
Passive men are weak	○	○	○	○	○	○	○
If a man wearing make-up and a dress, and also spoke in a high voice, approached my child, I would use physical force to stop him	○	○	○	○	○	○	○
Individuals should be allowed to express their gender freely	○	○	○	○	○	○	○
Sex change operations are morally wrong	○	○	○	○	○	○	○
Feminine men make me feel uncomfortable	○	○	○	○	○	○	○
I would go to a bar that was frequented by females that used to be males	○	○	○	○	○	○	○
People are either men or women	○	○	○	○	○	○	○

Confidential

My friends and I have often joked about men who dress like women	○	○	○	○	○	○	○
Masculine women make me feel uncomfortable	○	○	○	○	○	○	○
It is morally wrong for a woman to present herself as a man in public	○	○	○	○	○	○	○
It is all right to make fun of people who cross-dress	○	○	○	○	○	○	○
If I encounter a male who wore high-heeled shoes, stockings and make-up, I would consider beating him up	○	○	○	○	○	○	○

Confidential

GTS Only (3rd survey)

4 Digit Identification Code (use same code for all three surveys). Please remember this code for future reference.	_____
4 Digit Identification Code (use same code for all three surveys). Please remember this code for future reference	_____

Please indicate how you would respond to the following statements using the 7-point scale described. Please respond THOUGHTFULLY and HONESTLY to each question. It is important to indicate how you really feel NOW and not how you might have felt in the PAST. Some of the situation maybe unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses. THERE ARE NO RIGHT OR WRONG ANSWERS

	Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
I have beat up men who act like sissies	○	○	○	○	○	○	○
I have behaved violently toward a woman because she was too masculine	○	○	○	○	○	○	○
If I found out that my best friend was changing their sex, I would freak out	○	○	○	○	○	○	○
God made two sexes and two sexes only	○	○	○	○	○	○	○
If a friend wanted to have his penis removed in order to become a woman, I would openly support him	○	○	○	○	○	○	○
I have teased a man because of his feminine appearance or behavior	○	○	○	○	○	○	○
Men who cross-dress for sexual pleasure digust me	○	○	○	○	○	○	○
Children should be encouraged to explore their masculinity and femininity	○	○	○	○	○	○	○
If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman	○	○	○	○	○	○	○

Confidential

Men who act like women should be ashamed of themselves	○	○	○	○	○	○	○
Men who shave their legs are weird	○	○	○	○	○	○	○
I cannot understand why a woman would act masculine	○	○	○	○	○	○	○
I have teased a woman because of her masculine appearance or behavior	○	○	○	○	○	○	○
Children should play with toys appropriate to their own sex	○	○	○	○	○	○	○
Women who see themselves as men are abnormal	○	○	○	○	○	○	○
I would avoid talking to a woman if I knew she had a surgically created penis and testicles	○	○	○	○	○	○	○
A man who dresses as a woman is a pervert	○	○	○	○	○	○	○
If I found out that my lover was the other sex, I would get violent	○	○	○	○	○	○	○
Feminine boys should be cured of their problem	○	○	○	○	○	○	○
I have behaved violently towards a man because he was too feminine	○	○	○	○	○	○	○
Passive men are weak	○	○	○	○	○	○	○
If a man wearing make-up and a dress, and also spoke in a high voice, approached my child, I would use physical force to stop him	○	○	○	○	○	○	○
Individuals should be allowed to express their gender freely	○	○	○	○	○	○	○
Sex change operations are morally wrong	○	○	○	○	○	○	○
Feminine men make me feel uncomfortable	○	○	○	○	○	○	○
I would go to a bar that was frequented by females that used to be males	○	○	○	○	○	○	○
People are either men or women	○	○	○	○	○	○	○

Confidential

My friends and I have often joked about men who dress like women	○	○	○	○	○	○	○
Masculine women make me feel uncomfortable	○	○	○	○	○	○	○
It is morally wrong for a woman to present herself as a man in public	○	○	○	○	○	○	○
It is all right to make fun of people who cross-dress	○	○	○	○	○	○	○
If I encounter a male who wore high-heeled shoes, stockings and make-up, I would consider beating him up	○	○	○	○	○	○	○

Appendix E

MAYO CLINIC

Memo

Suzanne Shaw
Department of Nursing
Mayo Clinic in Florida

Date: 6/24/2019

To: Jacksonville University DNP Project Review Committee Members and Jacksonville University (JU) Institutional Review Board (IRB)

From: Suzanne Shaw

Re: Shannon Crowe

The purpose of this memorandum is to confirm Mayo Clinic provides support to Shannon Crowe for her Doctor of Nursing Practice Quality Improvement project proposal titled "Disparities in Health Care for the Transgender Population".

I approve the utilization of:

- Recruitment of Allied Health Staff to participate in the quality improvement project as outline in the quality improvement protocol and application.
- Data collection as outlined in the protocol.

Should the JU Institutional Review Board or DNP project review committee should have any questions, please do not hesitate to contact me directly at 904-956-0059.

Sincerely,

Signature Redacted

Suzanne Shaw

Nursing Administrator

Mayo Clinic in Florida

Appendix F

MAYO CLINIC

Memo

Date: 6/28/2019

From: Mayo Clinic Institutional Review Board

Re: Disparities in Health Care For the Transgender Population: Shannon Crowe MSN, RN

To: Shannon Crowe MSN, RN

The Mayo Clinic Institutional Review Board (IRB) acknowledges that based on the responses submitted for this new activity through the Mayo Clinic Quality Improvement Wizard tool, and in accordance with the Code of Federal Regulations, 45 CFR 46.102, the above noted activity does not require IRB review.

Other Federal, State and local laws and/or regulations may apply to the activity. This activity may be reconsidered for submission to the IRB if any changes are made.

The Project Leader is responsible for the accuracy and reliability of the information submitted through the Quality Improvement Wizard tool, for following all applicable Federal, State and local laws and/or regulations, and is also responsible for submitting research studies to the IRB when required.

Retain either a paper or electronic copy for your records.

Appendix G

Office of Research & Sponsored Programs
JACKSONVILLE UNIVERSITY

September 24, 2019

Institutional Review Board JU FWA #00020200

MEMORANDUM OF APPROVAL

TO: Ms. Shannon Crowe, Principal Investigator CC: Dr. Mary Gipson, Responsible Primary Investigator FROM: Dr. Claribel Torres-Lugo, Research Compliance Coordinator, Office of Research

and Sponsored Programs (ORSP) RE: IRB Decision: *Disparities in Health Care for the Transgender Patient, JU IRB #*

2019-055.

The Jacksonville University Institutional Review Board (IRB) approved your project as Exempt from oversight. The project met the approval criteria under Exempt Category 1-Educational Settings. This IRB approval has no expiration due to its Exemption Status.

If you submitted a proposed consent and or any recruitment materials (e.g., email scripts, flyers) with your application, the approved stamped documents are attached to this approval notice. Only the stamped version of these documents may be used in recruiting subjects.

Please be advised that any change in the protocol for this project must be reviewed and approved by the IRB before implementation of the proposed change. A Revision/Amendment Form is required for consideration of any change. Also, Federal Regulations require that the Principal Investigator promptly report, in writing, any unanticipated problems or adverse events involving risks to research subjects or others. If you have questions, please contact the Office of Research and Sponsored Programs at juirb@ju.edu or (904) 256-7151.

Appendix H

Curriculum Outline and Learning Objectives

1. Objectives
    A. Define Transgender Terminology
    B. Identify Transgender Concepts
    C. Identify how to reduce current healthcare gaps and improve the patient experienced
    D. Explore what inclusivity looks like
    E. Identify what healthcare workers can do to promote inclusivity
2. Transgender Terminology
3. Transvisibility
    A. Myths and Facts
    B. The Genderbread Person concept
    C. Gender Pronouns
4. Sexual Orientation Gender Identity (SOGI)
    A. Approaches to discuss SOGI with patients
5. Offensive Phrases/ Verbiage
6. Transgender Healthcare Needs
    A. Barriers to healthcare
    B. Patient Experience
7. Approaches to Inclusivity
8. Questions and Answers/ Role Playing with a Subject Matter Expert

Appendix I

Data Collection Sheets

Gender

Male n/%	Female n/%	Other n/%

Age

18-24 years n/%	25-34 years n/%	35-44 years n/%	45-54% n/%	Over 55 years n/%

Highest Degree Obtained

Some High School, no diploma n/%	High School graduate or equivalent n/%	Some College, no degree n/%	Associate Degree n/%	Bachelor's Degree n/%	Master's Degree n/%	Doctorate Degree n/%

Current Role

Secretary n/%	Scheduler/ Front Desk Support n/%	Ancillary Support Staff n/%	CA/MA n/%	LPN n/%	RN n/%	APP n/%	MD/DO n/%	Other n/%

Years working in the healthcare field

<1 year n/%	1-5 years n/%	6-10 years n/%	11-15 years n/%	16-20 years n/%	>20 years n/%

Do you have any transgender family or friends?

Yes n/%	No n/%

Genderism and Transphobia Scale

1. **I beat up on men who act like sissies.**
2. **I have behaved violently toward a woman because she was too masculine.**
3. **If I found out that my best friend was changing their sex, I would freak out.**
4. **God made two sexes and two sexes only.**
5. **If a friend wanted to have his penis removed in order to become a woman, I would openly support him.**
6. **I have teased a man because of his feminine appearance or behavior.**
7. **Men who cross-dress for sexual pleasure disgust me.**
8. **Children should be encouraged to explore their masculinity and femininity.**
9. **If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman.**
10. **Men who act like women should be ashamed of themselves.**
11. **Men who shave their legs are weird.**
12. **I cannot understand why a woman would act masculine.**
13. **I have teased a woman because of her masculine appearance or behavior.**
14. **Children should play with toys appropriate to their own sex.**
15. **Women who see themselves as men are abnormal.**
16. **I would avoid talking to a woman if I knew she had a surgically created penis and testicles.**
17. **A man who dresses as a woman is a pervert.**
18. **If I found out that my lover was the other sex, I would get violent.**
19. **Feminine boys should be cured of their problem.**
20. **I have behaved violently towards a man because he was too feminine.**
21. **Passive men are weak.**
22. **If a man wearing makeup and a dress, who also spoke in a high voice, approached my child, I would use physical force to stop him.**
23. **Individuals should be allowed to express their gender freely.**
24. **Sex change operations are morally wrong.**
25. **Feminine men make me feel uncomfortable.**
26. **I would go to a bar that was frequented by females that used to be males.**
27. **People are either men or women.**
28. **My friends and I often joked about men who dress like women.**
29. **Masculine women make me feel uncomfortable.**
30. **It is morally wrong for a woman to present herself as a man in public.**
31. **It is all right to make fun of people who cross-dress.**
32. **If I encountered a male who wore high-heeled shoes, stockings, and make-up, I would consider beating him up.**

Question #	Strongly Agree 1 n/%	Agree 2 n/%	Somewhat Agree 3 n/%	Neutral 4 n/%	Somewhat Disagree 5 n/%	Disagree 6 n/%	Strongly Disagree 7 n/%
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
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29							
30							
31							
32							

Appendix J

Table 1. Summary of Participants Demographics

Variable	Pre N=13	Post N=5	8-week N=6	All N=24
Age [n(%)]				
18-24	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
25-34	5 (38.5)	1 (20.0)	4 (66.7)	10 (41.7)
35-44	5 (38.5)	2 (40.0)	1 (16.7)	8 (33.3)
45-54	2 (15.4)	2 (40.0)	1 (16.7)	5 (20.8)
>54	1 (7.7)	0 (0.0)	0 (0.0)	1 (4.2)
Gender [n(%)]				
Male	1 (7.7)	0 (0.0)	0 (0.0)	1 (4.2)
Female	12 (92.3)	5 (100)	6 (100)	23 (95.8)
Education Level [n(%)]				
Some High School, No Diploma	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
High School Graduate or Equivalent	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Some College, No Degree	3 (23.1)	0 (0.0)	2 (33.3)	5 (20.8)
Associate Degree	3 (23.1)	2 (40.0)	1 (16.7)	6 (25.0)
Bachelor's Degree	4 (30.8)	1 (20.0)	3 (50.0)	8 (33.3)
Master's Degree	1 (7.7)	0 (0.0)	0 (0.0)	1 (4.2)
Doctorate Degree	2 (15.4)	2 (40.0)	0 (0.0)	4 (16.7)
Role [n(%)]				
Secretary	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Schedule/Front Desk Support	4 (30.8)	0 (0.0)	3 (50.0)	7 (29.2)
Ancillary Support	0 (0.0)	1 (20.0)	0 (0.0)	1 (4.2)
Clinical Assistant/ Medical Assistant	1 (7.7)	0 (0.0)	1 (16.7)	2 (8.3)
Licensed Practical Nurse	3 (23.1)	1 (20.0)	1 (16.7)	5 (20.8)
Registered Nurse	3 (23.1)	0 (0.0)	1 (16.7)	4 (16.7)
Advance Practice Provider	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Physician	1 (7.7)	1 (20.0)	0 (0.0)	2 (8.3)
Other	1 (7.7)	2 (40.0)	0 (0.0)	3 (12.5)
Years of Experience [n(%)]				
<1	1 (7.7)	0 (0.0)	0 (0.0)	1 (4.2)
1-5	3 (23.1)	1 (20.0)	3 (50.0)	7 (29.2)
6-10	4 (30.8)	1 (20.0)	2 (33.3)	7 (29.2)
11-15	2 (15.4)	0 (0.0)	0 (0.0)	2 (8.3)
16-20	1 (7.7)	1 (20.0)	0 (0.0)	2 (8.3)
>20	2 (15.4)	2 (40.0)	1 (16.7)	5 (20.8)
Transgender Exposure [n(%)]				
No	8 (61.5)	3 (60.0)	3 (50.0)	14 (58.3)

Yes	5 (38.5)	2 (40.0)	3 (50.0)	10 (41.7)

N/R: not Reported, % = 100 x (n/N)
Demographic information was collected at different period of the intervention

Table 2. Summary of Individual Genderism and Transphobia Items

Variable	Pre N=13	Post N=11	8-week N=9
I have beat up men who act like sissies			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Strongly Disagree	13 (100)	11 (100)	9 (100)
I have behaved violently toward a woman because she was too masculine			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Strongly Disagree	12 (92.3)	11 (100)	9 (100)
If I found out that my best friend was changing their sex, I would freak out			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	1 (11.1)
Somewhat Agree	3 (23.1)	2 (18.2)	0 (0.0)
Neutral	2 (15.4)	1 (9.1)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	1 (9.1)	1 (11.1)
Strongly Disagree	6 (46.2)	7 (63.6)	7 (77.8)
God made two sexes and two sexes only			
Strongly Agree	3 (23.1)	3 (27.3)	1 (11.1)
Agree	2 (15.4)	2 (18.2)	1 (11.1)
Somewhat Agree	0 (0.0)	0 (0.0)	3 (33.3)
Neutral	3 (23.1)	0 (0.0)	1 (11.1)
Somewhat Disagree	1 (7.7)	3 (27.3)	0 (0.0)
Disagree	1 (7.7)	1 (9.1)	0 (0.0)
Strongly Disagree	3 (23.1)	2 (18.2)	3 (33.3)
If a friend wanted to have his penis removed in order to become a woman, I would openly support him			
Strongly Agree	7 (53.8)	3 (27.3)	5 (55.6)
Agree	3 (23.1)	4 (36.4)	2 (22.2)
Somewhat Agree	1 (7.7)	0 (0.0)	0 (0.0)
Neutral	2 (15.4)	1 (9.1)	1 (11.1)
Somewhat Disagree	0 (0.0)	2 (18.2)	0 (0.0)
Disagree	0 (0.0)	0 (0.0)	0 (0.0)

Variable	Pre N=13	Post N=11	8-week N=9
Strongly Disagree	0 (0.0)	1 (9.1)	1 (11.1)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
I have teased a man because of his feminine appearance or behavior			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	1 (9.1)	0 (0.0)
Somewhat Agree	3 (23.1)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	1 (9.1)	0 (0.0)
Strongly Disagree	6 (46.2)	9 (81.8)	9 (100)
Men who cross-dress for sexual pleasure disgust me			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	3 (23.1)	2 (18.2)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	1 (11.1)
Disagree	1 (7.7)	1 (9.1)	1 (11.1)
Strongly Disagree	9 (69.2)	8 (72.7)	7 (77.8)
Children should be encouraged to explore their masculinity and femininity			
Strongly Agree	3 (23.1)	4 (36.4)	3 (33.3)
Agree	4 (30.8)	3 (27.3)	2 (22.2)
Somewhat Agree	1 (7.7)	1 (9.1)	3 (33.3)
Neutral	5 (38.5)	3 (27.3)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Strongly Disagree	0 (0.0)	0 (0.0)	1 (11.1)
If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	1 (11.1)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Strongly Disagree	12 (92.3)	11 (100)	8 (88.9)
Men who act like women should be ashamed of themselves			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)

Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	5 (38.5)	0 (0.0)	0 (0.0)
Strongly Disagree	8 (61.5)	11 (100)	9 (100)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
Men who shave their legs are weird			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	4 (30.8)	2 (18.2)	0 (0.0)
Strongly Disagree	9 (69.2)	9 (81.8)	9 (100)
I can not understand why a woman would act masculine			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	1 (9.1)	0 (0.0)
Somewhat Disagree	1 (7.7)	1 (9.1)	0 (0.0)
Disagree	3 (23.1)	1 (9.1)	1 (11.1)
Strongly Disagree	8 (61.5)	8 (72.7)	8 (88.9)
I have teased a woman because of her masculine appearance or behavior			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	2 (15.4)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	2 (18.2)	1 (11.1)
Strongly Disagree	8 (61.5)	9 (81.8)	8 (88.9)
Children should play with toys appropriate to their own sex			
Strongly Agree	1 (7.7)	2 (18.2)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	1 (7.7)	1 (9.1)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	3 (27.3)	0 (0.0)
Strongly Disagree	8 (61.5)	4 (36.4)	9 (100)
Women who see themselves as men are abnormal			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	2 (15.4)	1 (9.1)	1 (11.1)
Somewhat Disagree	2 (15.4)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	1 (9.1)	0 (0.0)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
I would avoid talking to a woman if I knew she had a surgically created penis and testicles			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	0 (0.0)	0 (0.0)
Strongly Disagree	9 (69.2)	10 (90.9)	9 (100)
A man who dresses as a woman is a pervert			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	1 (7.7)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	2 (18.2)	1 (11.1)
Strongly Disagree	9 (69.2)	8 (72.7)	8 (88.9)
If I found out that my lover was the other sex, I would get violent			
Strongly Agree	0 (0.0)	1 (9.1)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	3 (23.1)	0 (0.0)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	1 (9.1)	1 (11.1)
Strongly Disagree	7 (53.8)	9 (81.8)	8 (88.9)
Feminine boys should be cured of their problem			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	1 (9.1)	1 (11.1)
Strongly Disagree	9 (69.2)	10 (90.9)	8 (88.9)
I have behaved violently toward a man because he was too feminine			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Strongly Disagree	12 (92.3)	11 (100)	9 (100)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
Passive men are weak			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	2 (15.4)	0 (0.0)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	2 (18.2)	1 (11.1)
Strongly Disagree	8 (61.5)	8 (72.7)	8 (88.9)
If a man wearing makeup and a dress, who also spoke in a high voice, approached my child, I would use physical force to stop him			
Strongly Agree	0 (0.0)	1 (9.1)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	0 (0.0)	0 (0.0)
Somewhat Disagree	2 (15.4)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	1 (9.1)	1 (11.1)
Strongly Disagree	9 (69.2)	9 (81.8)	8 (88.9)
Individuals should be allowed to express their gender freely			
Strongly Agree	9 (69.2)	7 (63.6)	6 (66.7)
Agree	2 (15.4)	2 (18.2)	1 (11.1)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	2 (15.4)	2 (18.2)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Strongly Disagree	0 (0.0)	0 (0.0)	2 (22.2)
Sex change operations are morally wrong			
Strongly Agree	0 (0.0)	1 (9.1)	1 (11.1)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	1 (7.7)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	1 (9.1)	1 (11.1)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	4 (30.8)	3 (27.3)	1 (11.1)
Strongly Disagree	6 (46.2)	6 (54.5)	6 (66.7)
Feminine men make me feel uncomfortable			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	1 (7.7)	0 (0.0)	0 (0.0)
Neutral	2 (15.4)	1 (9.1)	1 (11.1)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	4 (30.8)	2 (18.2)	0 (0.0)
Strongly Disagree	6 (46.2)	8 (72.7)	8 (88.9)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
I would go to a bar that was frequented by females who used to be males			
Strongly Agree	2 (15.4)	1 (9.1)	1 (11.1)
Agree	4 (30.8)	3 (27.3)	5 (55.6)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	6 (46.2)	4 (36.4)	1 (11.1)
Somewhat Disagree	0 (0.0)	1 (9.1)	0 (0.0)
Disagree	0 (0.0)	1 (9.1)	1 (11.1)
Strongly Disagree	1 (7.7)	0 (0.0)	1 (11.1)
People are either men or women			
Strongly Agree	3 (23.1)	1 (9.1)	0 (0.0)
Agree	0 (0.0)	3 (27.3)	1 (11.1)
Somewhat Agree	1 (7.7)	1 (9.1)	1 (11.1)
Neutral	2 (15.4)	3 (27.3)	4 (44.4)
Somewhat Disagree	2 (15.4)	0 (0.0)	0 (0.0)
Disagree	2 (15.4)	1 (9.1)	2 (22.2)
Strongly Disagree	3 (23.1)	2 (18.2)	1 (11.1)
My friends and I have often joked about men who dress like women			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	1 (9.1)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	2 (15.4)	0 (0.0)	0 (0.0)
Disagree	3 (23.1)	2 (18.2)	1 (11.1)
Strongly Disagree	8 (61.5)	8 (72.7)	8 (88.9)
Masculine women make me feel uncomfortable			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	0 (0.0)	0 (0.0)
Somewhat Disagree	2 (15.4)	1 (9.1)	0 (0.0)
Disagree	3 (23.1)	2 (18.2)	1 (11.1)
Strongly Disagree	7 (53.8)	8 (72.7)	8 (88.9)
It is morally wrong for a woman to present herself as a man in public			
Strongly Agree	0 (0.0)	1 (9.1)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	1 (7.7)	1 (9.1)	1 (11.1)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)

Variable	Pre N=13	Post N=11	8-week N=9
Disagree	4 (30.8)	2 (18.2)	1 (11.1)
Strongly Disagree	7 (53.8)	7 (63.6)	7 (77.8)

% = 100 x (n/N)

Variable	Pre N=13	Post N=11	8-week N=9
It is all right to make fun of people who cross-dress			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	1 (9.1)	0 (0.0)
Strongly Disagree	11 (84.6)	10 (90.9)	9 (100)
If I encountered a male who wore high-heeled shoes, stockings, and makeup, I would consider beating him up			
Strongly Agree	0 (0.0)	0 (0.0)	0 (0.0)
Agree	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Agree	0 (0.0)	0 (0.0)	0 (0.0)
Neutral	0 (0.0)	0 (0.0)	0 (0.0)
Somewhat Disagree	0 (0.0)	0 (0.0)	0 (0.0)
Disagree	1 (7.7)	0 (0.0)	0 (0.0)
Strongly Disagree	12 (92.3)	11 (100)	9 (100)

% = 100 x (n/N)

Table 3. Summary of Genderism and Transphobia Scores (GTS)

Parameter	Pre N=13	Post N=11	8-week N=9
GTS Score			
n	13	11	9
Mean (SD)	59.2 (20.53)	56.9 (19.17)	48.3 (13.09)
Median	54.0	54.0	47.0
Min - Max	35.0 - 105.0	34.0 - 88.0	33.0 - 77.0

SD: standard deviation, Min: Minimum, Max: Maximum.

Table 4. Comparisons between GT scores

Assessment Period	LS-Mean	StdErr	95% Lower	95% Upper	P-value	Significantly different?
Pre	61.4	4.80	51.5	71.2		
Post	56.0	4.69	46.2	65.8		
8-Weeks	46.8	5.67	35.1	58.5		
Difference (Post vs. Pre)	-5.4	4.49	-15.6	4.9	0.2654	No
Difference (8-Weeks vs. Pre)	-14.5	6.23	-28.4	-0.7	0.0418	Yes

LS-Mean: Least-square mean (i.e. adjusted mean), StdErr: Standard Error
The analysis was conducted using linear mixed models
A significant difference is concluded if the adjusted Tukey p-value is below 0.05 (p-value < 0.05).