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I, Teresa A. Couch, hereby submit this DNP Project scholarly document in partial fulfillment of the requirements for the degree Doctor of Nursing Practice in Population Health Leadership.

Culturally Sensitive Transgender Education for Health Care Professionals

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Culturally Sensitive Transgender Education for Health Care Professionals

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Abstract

Transgender (TGN) and gender non-conforming youth are persons who identify as a gender other than the one assigned to them at birth. Transgender people face barriers accessing care including limited number of providers with TGN specific training and clinicians who lack understanding of the unique needs of TGN people. Patients and families report a high level of satisfaction with care and interactions with staff in the Transgender Care Clinic, but report that care encounters in other clinical areas revealed staff who demonstrate knowledge gaps in providing gender affirming care. To address this issue, the interprofessional care team in the TGN clinic set a strategic priority to provide education for clinicians in other areas of the organization through the development of an electronic learning module.

The purpose of this scholarly project was to assess the impact of an electronic learning module on knowledge related to the care of the TGN adolescent. Interprofessional staff working in psychiatric services were invited to complete the learning activity.

Twenty-six participants completed the pretest, viewed the video educational module, and completed the post-test. There was a statistically significant increase in the post test scores of the cultural self-assessment (*m* = 21.92, *SD* = 2.432*)* and the pre-test scores on the cultural self-assessment (*m* = 15.00; *SD* = 3.544).

Chapter 1: Introduction and Background

Knowledge gaps among health care professional in providing care for transgender (TGN) gender non-conforming patients prevent the implementation of a gender affirming health care environment. Pre-licensure health professional educational programs offer little curricular content in the care of this vulnerable population. In addition, many health care professionals may have little experience caring for TGN youth. Few professional development activities support clinicians in developing cultural awareness, knowledge and skill for this population (Eliason, Dibble and DeJoseph, 2010; Grant et al., 2011; Lim, Brown, and Jones, 2013; Lim, Johnson, and Eliason, 2015, Obedin-Matliver, et al., 2011; Sequeria, Chakaborti, and Paneti, 2012). As a result, TGN patients and families often find themselves in the role of teaching their health care provider about what it means to be TGN. Improving pre-licensure education and implementing ongoing professional development education in relation to transgender care could address personal prejudicial thinking among physicians, nurses, and allied health professionals and improve the patient experience (Eliason, Dibble, & DeJoseph, 2010; Gridley, et al., 2016; Grant, et al., 2011; Healthy People 2020 [HP], n.d.; Institute of Medicine [IOM], 2011; Kattari and Hasche, 2016; Safer et al., 2016; Sequeria, Chakaborti, and Panetti, 2012; Stoddard, Leibowitz, Ton, and Snowden, 2011).

Transgender and gender non-conforming are umbrella terms describing persons whose gender identity differs from the gender assigned to them at birth. Traditional thinking defines a rigid binary assignment of gender based on the appearance of the external genitalia at birth. There is increasing acceptance that gender is defined based on a diverse spectrum rather than a rigid binary classification. Gender identity refers to a person’s internal sense of self; how they view themselves and who they believe themselves to be. An individual may identify their gender

as male, female, a combination of male and female or neither male nor female. In addition a person's gender identity may change over time and it may not be possible to identify a person's gender identity by their appearance. Gender identity is not a choice but rather a personal experience of self-identity (Conard, 2017; Grant, 2011; Gridley, et al., 2011). A wide range of terms may be used to describe an individual's gender identity.

Traditionally in western society, sex and gender have been interchangeable concepts. As previously stated, gender is usually identified when a child is born based on the physical appearance of the external genitalia. Since there are no physical characteristics that indicate how a child's identity will develop, a more accurate characterization of this phenomenon would be to refer to this process as assigning sex at birth. For most individuals biological sex and gender identity align. These individuals are referred to as cisgender. Those whose gender identity is not congruent with their physical sex are referred to as transgender (Alegria, 2011; Beemyn, 2013; Bosse and Chidod, 2016; Brinkman, Rabenstein, Rozen, and Zimmerman, 2014; Grant, et al., 2011; Gridley, et al., 2016; Nagoshi, Nagoshi, Terrell, and Brzuzy, 2014; Stoddard, Leibowitz, Ton, and Snowden, 2011).

Gender expression is the way in which an individual chooses to externally express their personal sense of masculinity, femininity or something in between to other people. Gender expression may involve the style of clothing, hairstyles, mannerisms, make-up, speech, and voice. A person may choose to align their gender expression with their identity while others may choose more neutral ways to express themselves. Like gender identity, gender expression may be variable and change over time (Alegria, 2011; Beemyn, 2013; Bosse & Chidod, 2016; Brinkman, Rabenstien, Rozen, & Zimmerman, 2014; Grant, et al., 2011; Gridley, et al., 2016; Nagoshi, Nagoshi, Terrell, & Brzuzy, 2014; Stoddard, Leibowitz, Ton, & Snowden, 2011). A list of

additional terms and definitions associated with transgender and gender non-conforming people can be found in Appendix A.

Gender Identity Development in Childhood

Children develop a sense of their gender identity between 2 and 3 years of age. They may begin to explore their gender identity through play. It is normal during this period of development for children to engage in cross gender play and cross gender roles. Cross gender play does not mean, however, that a child has developed a transgender identity. (Bosse & Chidod, 2016; Brinkman, Rabenstein, Ross, & Zimmerman, 2014; Bussey & Bondura, 1999; Grant et al., 2011; Stoddard, Leibowitz & Telilngator, 2012; Lev and Alie, 2012). When a child consistently, persistently, and insistently expresses a cross-gender identity over an extended period of time parents and health professionals may begin to suspect the child is transgender. The trajectory of persistent cross-gender identification is variable. In early childhood, there are no factors that predict whether or not a gender diverse child will persist in their cross gender identity as they grow into adulthood. Children whose transgender identity persists into the onset of puberty, however, are more likely to maintain their transgender identity into adulthood (de Vries, et al, 2010; Ehrensaft, 2011; Leibowitz, & Telingator, 2012; Lev, & Alie, 2012).

For transgender adolescents, developmental work is focused on aligning their gender identity and gender expression with the social environment in which they live. Success in this developmental task finds the adolescent with an authentic sense of self and emerging congruence of gender identity and gender expression (Bockting & Ehrbar, 2006; Burdge, 2014; Dentice & Detert, 2015). Failure to successfully navigate this developmental stage can have deleterious effects on physical and mental health well into adulthood. Adolescents whose families and social support systems demonstrate affirmative behavior for their gender identity and expression are

more likely to navigate the developmental challenges successfully (Bockting & Ehrbar, 2006; Cooker, Austin, and Schuster, 2010; McConnell, Birkett, and Mustanski, 2016; Peterson, Matthews, Copps-Smith, and Conard, 2016; Simmons, et al., 2013; Strandijord, Ng, and Rome, 2015, Vance, Ehrensaft and Rosenthal, 2014).

The approach to working with gender diverse children should be rooted in a creating a supportive and gender affirming environment. Care of transgender and gender non-conforming youth is focused on creating safe environments that promote healthy growth and development. For some children this may include a social transition. Social transition involves the process of changing the external appearance, including clothing and hairstyles, and possibly name and pronouns to match their internal gender. Counseling and psychological therapy for the child should be aimed at helping the child to understand that although their gender identity and gender expression may be different than what others believe is normal, and they are accepted for who they are (Chung & Klann, 2015; Grant et al., 2011; Gridley et al., 2011; Guss, Shumer, and Katz-Wise, 2015; IOM, 2011)..

As the child approaches puberty, decisions should be made regarding physical transition. Transgender children often experience an increase in mental health issues with the development of secondary sex characteristics associated with puberty. Pubertal suppressive therapies can be initiated to pause the onset of physical development. These therapies are reversible and provide the child and family with time to engage in psychological therapy that support the ongoing exploration of gender identity without the permanent side effects associated with the administration of cross-sex hormones. Decisions can be made when the child is older whether to discontinue use of pubertal suppression and allow natal pubertal development or whether the child will use cross sex-hormones, surgical intervention, or other means of physical transition

(Chung & Klann, 2015; Conard, 2017; Grant et al., 2011; Gridley et al., 2011; Guss, Shumer, & Katz-Wise, 2015; IOM, 2011; Lambrese, 2010; Leibowitz and Telingator, 2012; Peterson, Matthews, Cops-Smith & Conard, 2016; Zou, et al., 2018).

In some instances, parents and families may discourage social transition or attempt to change the child's self-identity to align with their natal sex through conversion therapy. Conversion therapy may take a number of different approaches including electrical shock therapy, social skills training, or intensive religious counseling. There is little empirical evidence supporting the efficacy of these types conversion therapy. Instead, evidence indicates that attempts at conversion therapy result in harm. Conversion or restorative therapies are considered unethical and harmful and should be avoided. Children and adolescents whose gender identity and gender expression are affirmed and supported are more likely to have positive physical and mental health outcomes (American Psychological Association [APA], 2015; Bilodeau and Renn, 2005; Bockting, & Ehrbar, 2006; Brinkman, Rabenstein, Rosen, & Zimmerman, 2014; Chung & Klann, 2015; Grant et al., 2011; IOM, 2011; Gridley et. al., 2016, Guss, Shumer & Katz-Wise, 2015; Menvielle and Hill, 2011; Katz-Wise, et al., 2017; Vanderburgh, 2009; World Professional Association for Transgender Health [WPATH], 2010; Wylie et al., 2016; Wallien, and Cohen-Kettenis, 2008; Zou, et al., 2018).

Size of the Transgender Population in the US

Attempts to accurately estimate the population of transgender people in the United States (US) have been limited. Until recently, significant barriers have existed that impair the ability of researchers to understand the size, age range, and socio-economic characteristics of this population. National census and surveillance surveys have failed to include gender identity in data collection. Studies including assessment of gender identity may suffer from self-report bias

due to the fear of societal reaction if the subject's transgender identity is inadvertently revealed. In addition, many studies do not report the prevalence of transgender identity as a separate category. Those with transgender identities are often included in the assessment of lesbian, gay, and bisexual populations. Insight into number of transgender children is even more challenging. Studies of transgender people frequently focus primarily on adult and adolescent populations. Little emphasis has been placed on assessing population size of transgender children and current statistics are rooted in estimates (Bunim, 2015; Gates, 2011; Grant, et al., 2011; Harris, 2015; Herman et al., 2017; HP 2020, n.d.; IOM, 201; Peréz-Stabile, 2016).

Understanding population size is critical for developing a better understanding of the social-behavioral determinants of health and for developing strategies for addressing disparities. Insights into the size of the population of transgender youth can enhance the efforts of health care professionals and transgender advocates in developing and enacting public policies that support the improvement of health outcomes. To address this disparity in population health data, recent federal policy initiatives are bringing increased focus on understanding the needs of the transgender population (Lim, Brown, & Jones, 2013). For example, The National Institutes of Health (NIH) declared sexual minorities as a disparate health population, opening opportunities for research funding (Peréz-Stabile, 2016). In addition, federal health care goals identified by Healthy People 2020, emphasize the need to improve outcomes and eliminate health disparities for transgender people. The first efforts toward this goal involve increasing data collection related to gender identity on national census surveys and health related surveillance assessments (Bunim, 2015; Gates, 2011; Grant, et al., 2011; HP 2020, n.d.; IOM, 2011; Peréz-Stabile, 2016).

The experience of having a transgender identity is not common. Recent literature suggests that the population size of both transgender adults and children is growing. It is not,

however, known if the population is actually increasing or if societal shifts in acceptance are creating safe spaces in which more people feel supported in publically disclosing their transgender status (Gates, 2011; Grant, et al., 2011; Harris, 2015; HP 2020, n.d.; IOM, 2011; Peréz-Stabile, 2016).

There are approximately 700,000 adults in the US who identify as transgender or gender non-conforming. This represents approximately 0.39% of total US population (Gates, 2011). Transgender adolescents between the ages of 13 and 17 years of age represent 0.7% of the adolescent population and young adults between the ages of 18 and 24 years represent 0.7% of all young adults in the US (Gates, 2011; Grant, 2011; Herman, et al., 2017).

In Ohio, Kentucky, and Indiana, which make up the primary service area of Cincinnati Children's, the trends for population size reflect proportions similar to estimates at the national level. In Ohio, transgender adolescents ages 13 to 17 years represent 0.76% of the adolescents in the state. Transgender young adults ages 18 to 24 years make up approximately 0.50%. In Kentucky, 0.65% of youth ages 13 to 17 and 0.57% of young adults ages 18 to 24 years classify themselves as TGN. Finally, in Indiana 0.74% of adolescents ages 13 to 17 and 0.62% of young adults ages 18 to 24 are transgender (Herman et. al, 2017). Since the population is small, it is unlikely that large numbers of health care professionals have opportunity to provide care to TGN or gender non-confirming children (Gates, 2011, Lim, Brown, & Jones, 2015).1

With respect to race and ethnicity, there are minimal differences in adolescents identifying with a sexual minority group. According to the Human Rights Campaign (2012) of adolescent ages 13 to 18 years who classify themselves as a sexual minority, 68% are white, 14% are Hispanic, 6% are African American, 2% are Native American, 3% are Asian or Pacific Islander, 6% declined to answer and 1% stated "other." Care must be taken when interpreting

these data as the survey was administered to youth identifying as gay, lesbian, bisexual, and transgender. Although the data was not singularly focused on TGN or gender non-conforming youth, it does provide insight into the experiences of gender diverse and sexual minority youth. In addition, self-report bias may exist as TGN youth may fear discrimination if they reveal their gender variant identity.

Health Disparities for Transgender People

Historically, the experience being transgender is poorly understood and resulted in transgender people being viewed as being immoral, criminally deviant, or mentally ill. It was not uncommon for those who publically disclosed their transgender identity to be institutionalized or incarcerated. Until the mid-1950's medical protocols supporting gender transition were non-existent. Instead, TGN and gender non-conforming individuals faced harmful physical and psychological conversion interventions aimed at redirecting them to align their gender identity with their biological sex. Though shifts in societal attitudes throughout the late 20th and early 21st centuries have resulted in increasing acceptance and support of transgender people, TGN and gender non-conforming people continue to face significant discrimination, marginalization and health disparities (Beemyn, 2013; Burdge, 2014; Coleman, et al., 2011; Grant, et al., 2011; Gridley, et al., 2016; IOM, 2011; WPATH, 2011).

Transgender and gender non-conforming children and adolescents are more likely than their cisgender peers to suffer from depression, anxiety, and suicidal ideation. They have higher rates of eating disorders, substance abuse, and other mental health illnesses and lower overall health related quality of life. Transgender adolescents who lose the support of their families, are more likely than their cisgender peers to be homeless. The lack of financial support for basic needs may lead them to seek work in a sex trade, which puts them at further risk for

victimization and violence (Beemyn, 2013; Burdge, 2014; Coleman, et al., 2011; Dentise & Dietert, 2015; Erickson-Schroth, 2013; Grant, et al, 2011 IOM, 2011; WPATH, 2010; Zou, et al., 2018).

Preparation of Clinicians to Provide Care to Transgender Populations

The care of sexual and gender minority persons is largely absent from pre-licensure health professional education. In addition, professional development activities related to this population have been limited, resulting in clinicians who are poorly prepared to provide care for this vulnerable population. Contributing causes for this lack of curricular time may include academic faculty with limited knowledge and skill and the need for faculty to meet specific curricular standards in a limited amount of classroom time. Furthermore, system based barriers, such as faith based missions, may impair the ability of faculty to include gender diversity in curricular content. (Alegria, 2011; Beemyn, 2013, Eliason, Dibble, & DeJoseph, 2010; IOM, 2011; Lim, Brown, &Jones, 2013; Lim, Johnson, & Eliason, 2015; Obedin-Matliver, et al., 2011; Sanchez, et al., 2006; Sequeira, Chakaborti,& Panetti, 2012; Stoddard, Leibowitz, Ton, & Snowden, 2011).

Knowledge gaps impact the ability of clinicians to establish a therapeutic milieu. Health care professionals may exhibit culturally insensitive language or demonstrate discriminatory behaviors when providing care. Transgender and gender non-conforming individuals frequently report discrimination in health care encounters including health care clinicians who refuse to use preferred names and gender affirming pronouns, professionals who use harsh and insensitive language, providers who deny health care services, and health care staff who refuse to touch or use excessive precautions when providing care. (Cruz, 2014; IOM, 2011; Gridley, et al., 2016; Kattari & Hasche, 2016; Lambda Legal, 2010; Pega & Veale, 2015, WPATH, 2011).

Closing the knowledge gap in TGN care impacts population health by managing and decreasing stigma and discriminatory actions among health professionals. Discrimination in the health care environment, whether overt or covert, may lead TGN and gender nonconforming patients to delay seeking care for acute illness, avoid medical management of chronic conditions, and shun preventative care (Grant et al., 2011; IOM, 2011; Gridley et. al., 2016; Kattari & Hasche, 2016).

As interprofessional teams better understand the prevalence and specialized population health needs of the TGN adolescent, the necessity for integration of culturally sensitive care for this vulnerable population becomes evident. Federal and state policies support the inclusion of culturally competent care for lesbian, gay, bisexual, and transgender (LGBT) patients. For example, as a condition of accreditation, The Joint Commission (TJC) and the Center for Medicaid and Medicare Services (CMS) emphasize the need for building patient-provider relationships based on trust and the creation of a welcoming environment in which LBGT patient can safely and fully engage in care (Eliason, Dibble, DeJoseph, and Chinn, 2010; CMS, 2014; Lim, Brown, & Jones, 2013; TJC, 2011).

Alignment with Cincinnati Children's Hospital Strategic Plan

Cincinnati Children's Hospital's mission defines the work of the organization as improving the health outcomes of children and transforming pediatric health care delivery through innovation, research and education (Cincinnati Children's Hospital, 2016a). The emphasis on education includes education and training of new pediatric health care clinicians, support for pre-licensure clinical education, and professional development of employed staff. In 2016, CCHMC supported 190 clinical nursing student groups representing over 1,200 undergraduate nursing students and more than 300 allied health students (J. Meyers, personal

communication, April 20, 2017). Further support for undergraduate nursing education is evident through the use of professional nursing staff who led nursing clinical experiences throughout the academic year. Cincinnati Children's Hospital employs a staff of master's prepared clinical nurses who lead pediatric clinical experiences. For a fee, the academic organizations contract with the hospital to provide pediatric clinical experts to lead undergraduate nursing students in the completion of required clinical activities.

The hospital further supports professional development of interprofessional staff through monthly medical and nursing grand rounds presentations and numerous electronic learning opportunities that provide continuing education hours (J. Meyers, personal communication, April 20, 2017). Educational programs are developed internally and offered throughout the year. Staff can participate in live presentations and electronically streamed nursing and medical grand rounds sessions that provide professional continuing education credit. An electronic learning management system allows for self-paced independent study activities. Each interprofessional department has an assigned master's prepared education specialist dedicated to assuring the competency of practicing professional staff. Professional staff are supported in completing required educational materials while working and are paid for their time spent in professional development activities. A digital media department offers support for the development of electronic media and a number of presentation and video editing software programs are available for educators to use when planning online learning activities.

Cincinnati Children's Hospital has been among the top rated pediatric hospitals since the early 2000's. The transgender clinic is also nationally recognized for excellence in providing care. In 2016, The Human Rights Campaign endorsed the clinic and the hospital as a health care equality leader for excellence in care for transgender children and adolescents as part of their

Health Care Equity Index (Cincinnati Children's Hospital, n.d.). The transgender clinic is part of the division of adolescent medicine and supports the hospital's strategic plan through strong community engagement. In February 2018, a newly founded organization focused on support, advocacy, and community education committed to a donation of more than two-million dollars to transform care for transgender and gender non-conforming youth. The Living with Change foundation has partnered with the interdisciplinary staff in the TGN clinic to improve care delivery. Initial efforts will focus on transforming the Cincinnati Children's Hospital TGN clinic into a center of excellence and then create partnerships with pediatric transgender care clinics to transform care delivery across the US (May and O'Rourke, 2018)

Strategic Plan 2020 (SP202) was developed to guide and direct the activities of Cincinnati Children's Hospital through the year 2020. It is built on five pillars including care, discovery, community, people, and impact. Enabling factors providing support for the achievement of priorities within each of the pillars (Cincinnati Children's Hospital, 2016b). The care, impact and people pillars of the strategic plan direct activities to improve health outcomes, establish collaborative partnerships and support the highest level of professional practice. The care and impact pillars direct the organization to develop interprofessional partnerships and therapeutic patient relationships that improve patient outcomes, increase employee engagement, and enhance the family experience. Within the people pillar, Cincinnati Children's Hospital commits to developing employees and supporting them in developing the knowledge and skills needed to provide high quality care today and into the future. This scholarly project supports the work of the organization through the professional development of staff and the preparation of future clinicians.

Alignment with Xavier University (XU) Mission: Ignatian Principles

This scholarly project is also in alignment with the mission of Xavier University and the School of Nursing. The mission statement of the university highlights the need for professionals who impact the common good in an increasingly diverse world, challenging graduates to work to impact and improve the world (XU, 2017). Ignatian principles, which form the foundation of the mission and vision, set the stage for tolerance and support of vulnerable people and groups. Cura Personalis directs people to care for others in a holistic manner and to appreciate the value and uniqueness of each individual person. Solidarity and kinship challenge the community to understand, accept, and support the journey of others. Most importantly, service rooted in justice and love highlights the importance of protecting the most vulnerable populations from social injustice (XU, 2012).

The population health model of Xavier University's School of Nursing stresses that leadership rooted in Ignatian principles impacts population health outcomes by activating professional staff and empowering patients and families. It is imperative that doctoral prepared nurse leaders take an active role in impacting cultural competencies. Embracing these principles, the DNP student advances the work of a scholarly project focused on preparing health care professionals to provide care to transgender adolescents.

Problem Statement

Knowledge deficits that exist among health care professionals related to culturally sensitive care for transgender and gender non-conforming children and adolescents contribute to barriers in access to care and health disparities for this vulnerable population. Individuals from the interprofessional transgender care team have shared their knowledge and experience with other departments throughout the hospital. Increasing patient care responsibilities limit their time

to provide individual instruction to other care teams and impacts the sustainability for delivering small department based lectures. There is a need to deploy an educational solution that can reach a wider audience of health care professionals in a shorter period of time.

Delivering Culturally Sensitive Education to Clinicians: Opportunities

The Transgender Care Clinic at Cincinnati Children's Hospital was founded in 2014 offering primary health care services to transgender and gender non-conforming children and adolescents between the ages of 5 and 25 years of age. Since its founding, the clinic has experience more than 1200% growth. The clinic manages the health care needs of TGN adolescents through interprofessional collaboration. The interprofessional team includes physicians, nurses, social workers, pediatric endocrinologists, gynecologists, psychologists, and chaplains who tend to the health care needs of patients and families (Cincinnati Children's Hospital, 2016a). When the clinic first opened, the interprofessional team addressed the physical and mental health care needs of approximately 30 transgender children and adolescents. As of the third quarter of fiscal year 2018, more than 1,000 patients receive health care services in the clinic (Cincinnati Children's Hospital, 2016a; D. Grossoehme, personal communication January 30, 2018).

While patients and families report high levels of satisfaction with care received in the Transgender Care Clinic, their experiences in other care areas within the hospital reveal less than ideal relationships. Families have reported that in encounters with health care staff they have experienced discriminatory and insensitive language, lack of understanding of gender diversity, and refusal to use preferred names and pronouns when interacting with their transgender children. As a result, the transgender care team set a strategic priority for fiscal year 2018, the development and implementation of an electronic learning activity for interprofessional staff to

be used by clinicians across the organization. Increasing patient care demands resulting from the clinic's rapid growth impaired the ability of the team to develop the educational activity and publish it on the hospital's internal learning management system.

Assumptions

To complete the project, the following assumptions are held. First, there is a lack of understanding regarding the transgender experience among interprofessional clinicians throughout the hospital that contributes to transgender adolescents feeling unsafe. Performance measures included in the IOM's Quadruple Aim include the improvement of patient and clinician experience (Bodenheimer and Sinsky, 2014). Expanding the knowledge base and providing clinicians with practice tools will enhance clinician sensitivity, facilitate the establishment of therapeutic relationships, and improve the patient experience through the establishment of a gender affirming health care environment (Alegria, 2011; Lim, Brown & Jones, 2013; Lim, Johnson, & Eliason, 2015).

Second, patients and families have valuable lived experience that can inform and educate health care professionals. Patients and families have a strong desire to co-create the health care experience with clinicians. Mutual dialogue and sharing of stories facilitates knowledge acquisition (Carman, et al., 2013; Batalden, et al, 2015; Sabadosa and Batalden, 2014; Mayer and McKenzie, 2017).

Next, gender identity and expression can be described on a continuum rather than in rigid binary categories (Algeria, 2013, Beemyn, 2013, Dentice & Detert, 2015; Erickson-Schroth, 2013; IOM, 2011; Grant, et al., 2011; WPATH, 2012). Transgender individuals may identify within binary concepts of male and female, while others may have a more fluid definition of

their gender identity. Some may identify with no gender category, with both genders, or with identities and expressions that vary from day to day (Alegria, 2013).

Finally, there is a lack of preparation of TGN concepts in pre-licensure education for health care professionals and a lack of professional development opportunities for those in practice (Lim, Johnson, & Eliason, 2015; Sequeira, Chakaborti, & Panetti, 2012; Stoddard, Leibowitz, Ton, and Snowden, 2011). Furthermore, it is a professional responsibility of health care clinicians to seek educational opportunities when knowledge gaps exist. When caregivers are armed with information, they provide higher quality, holistic care (Alegria, 2013, Lim, Johnson, & Eliason, 2015).

Goals for the Scholarly Project

The overarching goal of this scholarly project is to impact care delivery for TGN and gender non-conforming adolescents by improving cultural knowledge and cultural skill of practicing interprofessional staff. There is a distinct relationship between the level of cultural knowledge and skill and the health care professional's ability to establish positive patient encounters. The creation of a gender affirming health care environment can be impacted through educating clinicians in the application of culturally sensitive practices (Bentacourt, Corbet, & Bondaryk, 2008; Bentacourt, Green, Carillo, and Park, 2005; Bentacourt, Green, and Carillo, 2002; Camphina-Bacote, 2007; Camphina-Bacote, 2011; Coltman, Thomas-Hall, and Blassingame, 2011; Flowers, 2004; Hannssman, Morrison, and Russian, 2008; Harkess, 2015; Kirkpatrick, Esterhuizen, Jessie, and Brown, 2015; Lev & Alie, 2012).

Two specific aims will drive the development of the project and the assessment of success. First, after completion of the educational program, interprofessional staff, including nurses, mental health specialists, child life specialists, and social workers will demonstrate

knowledge acquisition in relation to TGN concepts. Second, after completion of the educational program, staff will identify culturally sensitive skills and interventions that can be adapted to practice when working with transgender and gender non-conforming youths. A model outlining the key aspects of the scholarly project to develop culturally sensitive transgender education for health professionals is displayed using a logic model in Appendix B.

Chapter 2: Review of the Literature

Search Strategy

Electronic databases queried for this systematic review included the Cumulative Nursing and Allied Health Literature (CINAHL), Educational Research Information Clearinghouse, U.S. National Library of Medicine (PubMed) and Psychological Information (Psych INFO). Search terms included adolescent(s), adolescence, transgender, gender variant, gender non-conforming, nursing, provider, interprofessional team. The search was further refined combining these terms with education, coproduction, patient engagement, family stress, minority stress, and cultural competency.

Inclusion Criteria

The search was limited to studies published in English since 2008, and whose sample focused on community groups of transgender adolescents less than 25 years of age. The search included studies that originated in the United States as well as Europe and Asia. In addition, since transgender youth are often included in studies related to other sexual minorities, articles focusing on the needs of gay, lesbian, and bisexual teenagers were included if transgender adolescents were included in the sample. Lastly, studies focusing on international samples as well as samples from the US were included to provide a comparison of the experiences of transgender people in different countries.

Studies were excluded if the subjects were adults greater than 25 years old. Additionally, since transgender teenagers with identified mental health issues are already at an increased risk of suicidal behaviors, any studies focusing on transgender youth participating in clinical mental health programs were excluded. Studies were also excluded if they focused exclusively on gay, lesbian and bisexual adolescents.

The evidence was evaluated based on the Let Evidence Guide Every Decision (LEGEND) scale developed at Cincinnati Children's Hospital. Using this framework, each article is evaluated for strength of evidence based on study type, study design, statistical power, and clinical importance results. Articles are rated on a scale of 1 to 5, with one representing the strongest form of evidence and five representing weaker evidence. After evaluating each study, the body of evidence is given a grade based on the number of studies their individual ratings. The body of evidence is rated from grade not assignable to high (Cincinnati Children's Hospital, n.d.). An evidence table with ratings of each included article can be found in Appendix C and further explanation of the LEGEND framework can be found in Appendix D.

Theoretical Framework: Cultural Competence in the Delivery of Health Care Services

Interprofessional health care clinicians are faced with the challenge of providing care to increasingly diverse populations. The development of cultural competency in interprofessional clinicians is a recommended strategy by which organizations can move toward the achievement of the quadruple aim: improving patient outcomes, decreasing per capita health care costs, improving the patient experience, improving the clinician experience. Cultural competence facilitates improvement in clinician-patient communication, promotes the establishment of therapeutic relationships, and supports the development of respect and value in health care encounters (Betancourt, Corbet, & Bondaryk, 2008; Betancourt, Green, Carrillo, & Park, 2005; Betancourt, Green, & Carrillo, 2002; Paez, Allen, Carson, & Cooper, 2008; TJC, 2011).

The theoretical model providing the framework for this scholarly project is The Process of Cultural Competence in the Delivery of Health Care Services developed by Dr. Josephina Camphina-Bacote (2011). In this model, culture is defined as "that complex and whole which includes knowledge, belief, art, morals, law, custom, and any other capability and habits

acquired by men as a member of a society" (Camphina-Bacote, 2007, p. 7). Cultural groups are not only identified in terms of race and ethnicity, but include a wide range of characteristics including gender identity and sexual orientation. Developing knowledge in relation to culture also involves understanding the incidence and prevalence of certain diseases and conditions among the group's members as well as the social behavioral determinants of health and the existing health disparities that may exert influence on the group.

The model emphasizes that cultural competence is an ongoing process that never ends and is comprised of five interrelated components: cultural desire, cultural awareness, cultural knowledge, cultural skill and cultural encounters. Further, cultural competence is necessary in order to provide high quality effective care to patients and families (Camphina-Bacote, 2007; Camphina-Bacote, 2011).

Cultural desire is defined as an intrinsic inspiration that leads health care clinicians to want to engage in the process of cultural competence. Cultural desire involves a commitment on the part of the clinician to actively engage in learning about cultural groups whose beliefs, norms, and customs may be significantly different than their own. Cultural desire involves a commitment to respecting the inherent dignity of each person as a unique and valuable individual. The concept of cultural desire is in direct alignment with nursing professional practice and ethical standards (American Nurses Association, 2001; Bentacourt, Green, Carillio & Park, 2005; Camphina-Bacote, 2007; Camphina-Bacote, 2011; Hanssmann, Morrison, and Russian, 2008).

The next component included in the theoretical model is cultural awareness and involves self-reflection and self-examination of a clinician's own cultural beliefs, biases, assumptions, and feelings related to other people and groups. This dimension includes the discovery of both

explicit and covert biases and acknowledges that every interaction involves cultural influences at three levels: the patient, the clinician, and the organization. When clinicians fail to understand the influences of all three components the establishment of therapeutic relationships is impaired (Alexander, 2008; Bentacourt, Green Carillio, & Park, 2005; Camphina-Bacote, 2007; Camphina-Bacote, 2011; Kardong-Edgren, et al., 2010; Paez, Allen, Carson & Cooper, 2008).

The third component of the process of cultural competence is cultural knowledge. Cultural knowledge is the process of seeking a sound informational base regarding specific cultural groups. The process of cultural knowledge involves developing an understanding of a group's health related beliefs and behaviors, their values and norms, and the social and political influences on the group members. During the process of developing cultural knowledge, there is risk of health professionals applying stereotypes to all members of a particular cultural group. While important to understand the broad concepts and influences of a specific cultural group, it is crucial to develop and understanding that not all members of a cultural group have the exact same experience. Variation within the cultural group challenges clinicians to use cultural knowledge as a base from which to perform individualized assessment (Alexander, 2008; Camphina-Bacote, 2007; Camphina-Bacote, 2011, Sales, Jonkman, Conner, and Hall, 2013).

The final two components of the model are cultural skill and cultural encounters. Cultural skill involves developing the ability to collect culturally relevant information and perform sensitive assessments. Associated with skill is the engagement in cultural encounters which provide ongoing opportunity to engage in face to face interactions with individuals from specific cultural groups. Developing cultural skill also includes recognizing the unique attributes of individual members of the cultural group, and the influence of the cultural group on the

individual (Alexander, 2008. Camphina-Bacote, 2007; Camphina-Bacote, 2011; Kardong-Edgren, et al., 2010; Paez, Allen, Carson, & Cooper, 2008).

Knowledge Gaps in Providing Care to Transgender Youth

There is growing evidence for the need for inclusion of culturally sensitive transgender education for clinicians serving transgender youth. Similar to many pediatric conditions, transgender identity in children and adolescents is a rare condition (Grant, et al., 2011; IOM, 2011). With low prevalence rates health care professionals often lack understanding of the condition. This knowledge gap has contributed to limited research and evidence based care recommendations. A large proportion of published studies focus on the needs of transgender adults and existing care guidelines are generally based on expert opinion rather than on empirical outcomes (IOM, 2011, WPATH, 2012). Lack of culturally sensitive education in academic settings and continuing education programs support biases and inaccurate assumptions regarding transgender persons. Inability to address these biases may perpetuate feelings of marginalization and isolation if the health care milieu is seen as unsafe (Eliason, Dibble, DeJoseph, & Chin, 2009; Gridley, et al., 2016; IOM, 2011; Lim, Brown, & Jones, 2013; Lim, Johnson, & Eliason, 2015).

In addition, the World Health Organization (WHO) failed to include gender identity in the definition of social determinants of health. Although gender variance does not determine health directly, transgender and gender non-conforming identities place individuals in distinct social categories that affect the health of this population. The experience of transphobia, discrimination, marginalization, and violence creates social exclusions not experienced by cisgender people. This social exclusion creates significant isolation and contributes to substantial barriers in accessing health care (Brennan, et al., 2012; Carabez, et al., 2015; Copti,

Shahriari, Wanek, & Fitzsimmons, 2016; Gardner and Safer, 2013; Grant et al., 2011; Gridley, et al., 2011; Hannssman, Morrison, & Russian, 2008; IOM, 2011; Kelly, Chou, Dibble, and Robertson, 2008, Lev & Alie, 2012; Lim, Brown, & Jones, 2013; Obedin-Matliver, 2011; Pega & Veale, 2015; Safer, et al., 2013; Sanchez, et al. 2003; Sequeira, Chakaborti, & Panetti, 2012).

The inclusion of gender and sexual diversity concepts in professional pre-licensure educational program is very limited. In a study of ungraduated nursing baccalaureate programs the average curricular time devoted to examination of the health disparities and health care needs of sexual minority and gender diverse populations was 2.12 hours (Lim, Johnson, & Eliason, 2015). Similar results were found in a study assessing curricular time devoted to sexual and gender minorities in medical schools. The median time found devoted to caring for this vulnerable population was 5 hours, with several educational institutions reporting no existing curricular content (Obedin-Matliver, et. al., 2011).

Professional development activities for interprofessional clinicians focused on the development of providing culturally competent care are also limited. In one study, semi-structured interviews were performed with practicing nurses in an urban medical center. While nurses reported feeling comfortable providing care to gender and sexual diverse populations, analysis of data from interviews indicated that their understanding of the needs of transgender persons was more limited than their self-rating indicated. Qualitative data analysis revealed the misuse of language and narrow understanding of the cultural needs of the transgender patient and family. In addition, more than 80% of the participants in the study reported that they had received no formal instruction or development opportunities focused on providing care for transgender patients (Carabez, et al., 2015).

Interdisciplinary research concurs with the need for ongoing professional development activities. Through semi-structured interviews mental health professionals, dental students, and physical therapists shared the view that gender diversity curriculum was limited in their formal educational curriculum as well as in their practice settings. Literature from both professional groups recommended culturally sensitive education for interdisciplinary clinicians. (Copti, Shahriari, Wanek, & Fitzsimmons, 2016; Rutherford, McIntyre, Daley, and Rose, 2012).

International studies describe a similar experience for transgender people in Asian and European countries. One systematic review how described transgender adolescents across a number of Asian countries face marginalization and discrimination in society. Further insight revealed that discrimination health care encounters is commonplace and negatively impacts the physical and mental wellbeing of Asian transgender adolescents. Recommendations from these findings suggest that health professionals are a key component in reducing prejudice and improving outcomes for transgender youth. The study highlights opportunities to improve professional training opportunities in Asia (Winter, 2009). Transgender people across Europe report similar discrimination in employment, in their schools, and in their health care organizations. Approximately 25% of the European participants reported experiencing adverse, discriminatory, or culturally insensitive behaviors from health care clinicians who were involved in providing care. From a legal perspective, many European countries prohibit any changes in gender designation on identification documents unless the patient is involved with physical transition such as cross-sex hormones or gender reassignment surgery. These structural barriers encountered by European transgender people impact feelings of self-esteem and self-worth (Whittle, Turner, Combs, and Rhodes, 2008).

Culturally Proficient Care and Patient Outcomes

One assumption of this scholarly project includes the assumption that when interprofessional health care clinicians develop culture competence, the patient experience will improve and result in better patient outcomes. Developing cultural competency is an ongoing developmental task and is predicated on having the desire to learn and adopt new behaviors, as well as the ability to acquire knowledge of the beliefs, desires, and customs of diverse groups of people. Cultural competency in health care focuses on the ability of the health care system and the people within it to eliminate health care disparities by understanding and delivering care to diverse populations with sensitivity to their personal beliefs, values, and individual uniqueness. (Bentacourt, Green, & Carillo, 2002; Camphina-Bacote, 2007; Camphina-Bacote, 2011).

Health care professionals in the US serve the needs of increasingly diverse populations. Individuals enter into health care encounters with values, beliefs, customs, and social norms that guide their thinking, actions, and decisions (Bentacourt, Green, Carrillo, & Park, 2005; Hawala-Druy, 2012, Kardon-Edgren, et al., 2010; Lie, et al., 2010; Surreira, 2014). Lack of cultural competency in professional practice may interfere with the establishment of therapeutic relationships between patients and clinicians, erode trust in the health care system, decrease satisfaction, and increase health care disparities as marginalized groups of people avoid seeking preventative care, fail to engage in management of chronic conditions, or delay seeking curative care for acute illnesses (Bentacourt, Green, & Carrillo, 2002; Bentacourt, Green, Carrillo, & Park, 2005; Grant, et al., 2011; Hawala-Druy, 2012, Kardon-Edgren, et al., 2010; Surreira, 2014)

The development of cultural competency through the acquisition of cultural knowledge and skill supports clinician in better understanding their patient and may positively enhance the development of patient-clinician relationships (Brennan, et al., 2012; Brondini, & Paterson,

2011; Carabez et al., 2015; Copti, Shahriari, Wanek, & Fitzsimmons, 2016; Hanssmann, Morrison, & Russian, 2008; Kelly, Chou, Dibble, & Robertson, 2008; Paez, Allen, Carson, & Cooper, 2008; Sales, Jonkman, Connor, & Hall, 2013). Trust is an essential component of an effective patient clinician relationship. When health care professionals improve their cultural knowledge, they feel more comfortable caring for transgender and gender non-conforming patients and their ability to establish a gender affirming milieu is enhanced (Carabez, et al., 2015).

There is however, limited research in linking the improvement of cultural knowledge and skill with the improvement of patient outcomes and population health. In a systematic review of the literature, Lie, et al. (2010) identified a lack of quality studies limiting the ability to connect education and training interventions with improvements in quality patient outcomes. Literature centering on the effects of education and training typically focus on outcomes related to the attitudes, knowledge and skill of health care providers after engaging in cultural competency training programs and not the effect on population health (Carabez et al., 2015; Copti, Shahriari, Wanek, & Fitzsimmons, 2016; Hanssmann, Morrison, & Russian, 2008; Kelly, Chou, Dibble, &, Robertson, 2008; Paez, Allen, Carson, & Cooper, 2008; Sales, Jonkman, Connor, & Hall, 2013).

Analysis: Rigor of the Included Studies

All of the studies employed descriptive cross-sectional designs. Although cross-sectional designs may limit generalizability of findings and prevent identifying causality between the variables, the design is appropriate to use in the study of variables that influence the mental health of subjects or vulnerable populations. Purposefully exposing study participants to noxious stimuli, such as discrimination, would result in inappropriate harm.

All of the included studies also utilized self-report tools to gather data. There are limitations when using self-report data. Self-report bias may influence the results, because subjects may be reluctant to reveal their true experience for fear of repercussion, and recall of historical events may not fully capture the subject's true experience (Polit and Beck, 2012). In addition, several of the studies analyzed data from secondary sources. Accessing secondary data is advantageous to researchers in that it allows the analysis of large amounts of data in a relatively short period of time. However, because the investigators did not directly collect the data, there is no internal control of how the data was collected and there is little control over selecting study participants (Polit & Beck, 2012).

In addition, the collection of data specific to the transgender population may be limited. Gay, lesbian, bisexual and transgender people are often grouped into one sample since the available pool of qualified subjects may be limited for a specific study. It is important to note that gender identity and sexual orientation may not be related. Distinct differences between the experiences in health care of sexual minority and gender non-conforming people support the need to examine these groups separately (Grant, et al., 2011; IOM, 2011; WPATH, 2011).

Finally, until recently, the ability to identify those gender variant people has been limited. Until 2014, population based health care data sets did not include gender identity as part of the demographic information. As a result, data could not be stratified to compare results of transgender people with their cisgender peers. Though increasing effort is being made to include gender identity in population based data collection, less than 25% of states are including gender identity as a demographic category (Grant, et al., 2011; Herman, et al. 2017; Healthy People 2020, n.d.; IOM, 2011; Meerwijk and Sevelius, 2017; WPATH, 2011)

Grading the Body of Evidence

Utilizing the LEGEND framework, each individual article is given a rating from strongest (1) to weakest (5). Ratings are based on analysis on research design with 1 representing systematic reviews and meta-analyses followed by randomized controlled trials, psychometric, qualitative and cohort studies. Lower ratings include articles whose design includes guidelines, case reports, bench studies, and expert opinion. The rating is then further categorized with the letter 'a', indicating a good quality study, or 'b', indicating a lesser quality study.

Once each article is rated, the overall body of evidence is graded based on the number and quality of studies and the consistency of results across all articles. In addition, the scholar considers clinical significance, clinical importance, internal validity, statistical power, and effect size. The final criterion for assigning a grade to the body of evidence involves the scholar concluding whether further research will advance the knowledge base or have important impact on the clinical question. After considering all of these criteria, the scholar assigns a grade of low, medium, or high to the body of evidence. Within this framework, it is possible that it is not possible to assign a grade to the evidence. This may occur due to significant flaws in the studies, little or no research or research with inconsistent results (Cincinnati Children's Hospital, n.d.).

The grade of the body of evidence gives direction to the scholar in determining actions to take with the evidence. Concluding that a body of research deserves a grade of high might lead the health care team to implement recommendations and interventions found in the reviewed studies rather than conduct ongoing research. A body of evidence graded as low may lead to a conclusion that further study is needed before embarking on an implementation plan (CCHMC, n.d.).

The body of evidence for this scholarly project is rated as moderate. Most studies received ratings of 4 or 5 based on the use of cross-sectional descriptive designs. Ethical considerations with a vulnerable population limit the ability to perform randomized controlled trials. Several of the studies were qualitative in nature. Results were consistent across the studies, noting that transgender adolescents have higher risk of mental health disorders and face consistent barriers in access to health care services. Furthermore, studies focusing on culturally sensitive education consistently demonstrated gaps in the inclusion of TGN concepts and limited inclusion of cultural competence as an outcome.

Chapter 3: Methodology

Needs Assessment

The need for culturally sensitive transgender education was determined through assessment of patient experiences in the care environment. Patients who receive care in the TGN clinic at Cincinnati Children's Hospital receive both inpatient and outpatient health care services throughout the organization. Feedback from these patients to the TGN clinic medical director indicates absence of culturally sensitive transgender care outside of the TGN clinic. The implementation of a cultural competency program is an operational goal for the interprofessional team in the TGN clinic in fiscal year 2018 (Personal communication, L. Conard, June 9, 2017).

Review of the literature indicates that concepts related to transgender care are rarely included in the undergraduate curriculum for interprofessional clinicians. In addition, health care regulatory agencies recognize and endorse the need for the development of cultural sensitivity training to improve the health outcomes for this vulnerable population (The Joint Commission, 2011).

Project Design

This scholarly project employed a descriptive comparison design using a pretest and posttest approach to assess the impact of an educational program on knowledge of transgender concepts. A convenience sample was recruited from interprofessional health care staff who work in the pediatric inpatient psychiatry unit at Cincinnati Children's Hospital.

Ethical Considerations

The scholarly project was reviewed for merit by the Innovation and Research Council at Cincinnati Children's Hospital. The project was approved by the council to be submitted to the

institutional review board. The application and approval documents from the Innovation and research council can be found in Appendix E.

The scholarly project was reviewed by the Cincinnati Children's Hospital Institutional Review Board (IRB). The IRB approved the project with exempt status. A reliance agreement was signed by both the IRB at Cincinnati Children's Hospital and Xavier University. The IRB approval can be found in Appendix F and the reliance agreement can be found in Appendix G.

Project Timeline and Budget

The project was approved by the nursing faculty of Xavier University in August of 2017. Major project milestones were achieved throughout the fall of 2017 and spring of 2018. A breakdown of the project timeline can be found in Appendix H.

Costs for the scholarly project were minimal. Microsoft PowerPoint® was used to create the content for the online program. SnagIt® video capture software was used to record the PowerPoint slides and covert the content to an MP4 video file. Both programs were available at no cost from Cincinnati Children's Hospital. The only costs for the project were minimal document copying. The project budget can be found in Appendix I.

Recruitment for Online Education Program

With the support of the clinical director of the inpatient psychiatric department invitations to participate were sent to interprofessional clinical staff working in inpatient psychiatry and all CCHMC. Based on completion statistics tracked for other educational act ivies at CCHMC, anticipated return would be between 30% and 50% four weeks after opening the activity.

Development of the Online Learning Video

An 80 minute video presentation was developed with input from the interprofessional staff from the transgender care clinic. In alignment with recommendations from the literature search, the video program included definitions of transgender terminology, population based health risks, discussion of common co-morbid conditions, legal rights of transgender people, health disparities, and patient stories (Kelly, Chou, Dibble & Robertson, 2013; Hannsmann, Morrison, & Russian, 2008; Brondini & Patterson, 2011). In addition, the video included recommendations for culturally proficient communication, CCHMC policies, and available community resources.

Patient stories were added to the program. Four videos providing insight into the experience of raising transgender children were embedded into the presentation. Two videos were obtained from news report shared on the NBC Nightly News in 2014 and 2015, one from the Cincinnati Enquirer from 2015, and one provided by the Living with Change Foundation. One parent agreed to describe a health care encounter in which the health care clinician used culturally insensitive and discriminatory language in the delivery of care and the DNP student recorded and edited this video. When used as a teaching tool, patient storytelling can help clinical professionals to better understand the perspective of the patient and what is most important to them (Houston, 2016; Tevendale, 2015). Adolescent patients were interviewed to ascertain what they most wanted health care staff to know about caring for transgender youth. Two quotes from these interviews were included in the education program.

Data Collection/Study Procedures

Those who consented to participate were provided with access to an electronic learning module on the hospital's learning management system. Upon launching the electronic module,

participants were provided with a hyperlink directing them to the pre-test. Following the completion of the pretest, the video was launched for the participant to view. At the end of the video participants were provided a link directing them to complete a posttest. Following the completion of the posttest participants were asked to complete a program evaluation. The program evaluation included a five point Likert scale asking the participant to evaluate the effectiveness of the speaker and how well the learning program met the stated objectives.

The pretest and posttest were developed by the DNP student based on the curriculum of the learning module. The pretest and posttest consisted of 25 questions. One question asked participants to rate their cultural competence in relation to the five learning objectives. The remaining 24 questions included matching basic terms with their definitions, identification of culturally sensitive interventions, public policy, and health disparities.

To begin the learning program participants were directed to the pretest designed to assess baseline knowledge of the concepts contained in the learning activity. To assess knowledge transfer, immediately upon completion of the learning activity participants were directed to complete a posttest. The questions on the posttest mimicked those contained in pretest. Questions were reviewed by a content expert prior to including them for accuracy; however validity testing of the questions has not been established.

A program evaluation was incorporated into the learning activity to gain subjective data about the learners' satisfaction with the video module. The program evaluation was developed using the organization's standard template for independent study evaluations. Participants were asked to use a four-point Likert scale to rate their satisfaction (4 meaning strongly agree and 1 meaning do not agree). The evaluation form assessed how well the objectives of the module were met and how valuable the module was in terms of professional development.

Two open-ended questions were also included in the program evaluation. The first open-ended question sought to collect recommendation from learners on improvements for future iterations of the module. The second open-ended question asked participants to identify two concepts learned from the module that could be integrated into their clinical practice.

The pretest, posttest, and program evaluation were all built using the Survey Monkey© account available through the Center for Professional Excellence at Cincinnati Children's Hospital. The pretest/posttest questions can be found in Appendix J and the program evaluation can be found in Appendix K.

Potential Benefits and Risks

Benefits for participation included increased knowledge and skill in providing culturally sensitive care to transgender children and adolescents. The risks of participation were minimal. Major risks included boredom, loss of time, and psychological or emotional distress resulting from content in the educational activity that the participant may have considered controversial or in contrast to personal beliefs.

Participants who experienced any psychological or emotional distress from participation, were encouraged to contact Daniel Grossoehme or Sue Jelinek, chaplains in the Pastoral Care Department at Cincinnati Children's to find support and/or discuss their feelings. Participants were also reminded that they could seek supportive counseling services through Cincinnati Children's Employee Assistance Program.

Data Safety/Monitoring Plan

Data were collected anonymously using SurveyMonkey®, an internet-based survey program. Participants were asked to enter their unique employee ID number solely for the purposes of comparing pretest and posttest scores. Each employee holding a Cincinnati

Children's Hospital identification badge is issued an unique employee identification number upon hire. Employee ID numbers are stored in the Cincinnati Children's Hospital human resources secure database. The DNP candidate has no access to this database and was unable to match an employee ID number with the individual employee.

The SurveyMonkey® account used to build the pretest, posttest, and program evaluation is owned by Cincinnati Children's Hospital and is password protected. At the end of the educational program, results of each survey were downloaded into PDF and Microsoft Excel documents. The electronic data was deleted from the survey monkey account on April 30, 2018.

Data Analysis

Descriptive statistics were used to identify changes in overall test scores. Overall mean test scores on the pretest were calculated and compared to mean posttest scores to assess for knowledge transfer following the educational program. Paired sample t-tests were calculated to detect significance in changes in test score and effect size was calculated to assess the impact of the video program on test scores.

Open ended questions offered participants the opportunity to provide additional feedback about the learning modules and invited the participants to identify the two most impactful concepts they intended to incorporate into clinical practice. Responses to these questions were categorized to evaluate how concepts affected participants and how culturally sensitive interventions have been incorporated into practice.

A program evaluation form was used to collect learner satisfaction data from the participants. This evaluation included a 4-point Likert scale to assess each of the learning activities and evaluate the effectiveness of subject matter experts who presented during the program. Descriptive statistics were used to examine the learner satisfaction data.

Recruitment

Invitations were sent to professional staff working in the inpatient psychiatric unit and clinical nursing faculty employed at Cincinnati Children's Hospital. With support of the department clinical directors and department education specialists, email invitations were sent to registered nurses, mental health specialists, child life specialists, social workers, clinical instructors and patient care assistants. The educational program was published on the Cincinnati Children's Hospital learning management system on March 1, 2018. The educational program was available to staff for 30 days.

Project Milestones

This scholarly project was executed following the ADDIE model for instructional design. The phases of the ADDIE model include: analysis, design, development, implementation, and evaluation. The ADDIE model is a guide to instructional design that supports the educator in developing robust learning programs (Campbell, 2014).

Phase I, the analysis process focused on determining the purpose of the learning program, identification and interviewing of key stakeholders, determination of learning objectives and outlining course content (Durak and Ataizi, 2016; Campbell, 2014; York and Ertmer, 2016). Patients and families who are seen in the Transgender Care Clinic at Cincinnati Children's Hospital were offered the opportunity to provide input into the content of the video program. The development process merged the learned experience of the interprofessional health care team and he lived experience of the transgender adolescent. Patient and family stakeholders impacted the curriculum by sharing what they most want the interprofessional health care team to know. Other stakeholders included subject matter experts from the TGN clinic, the psychiatry unit, and the Office of Diversity and Inclusion at Cincinnati Children's Hospital. Virtual and in-person

meetings with stakeholders provided opportunities to identify concepts of import to each stakeholder group. The DNP candidate synthesized the perspectives of the key stakeholders and developed a content outline. The pretest, posttest, and program evaluation were developed based on the course content.

Phase II, the development phase and phase III, the design phase focused on development of the presentation in the required electronic platform for Cincinnati Children's Hospital's learning management system (Durak & Ataizi, 2016; Campbell, 2014; York & Ertner, 2016). The DNP candidate developed the video presentation using Microsoft PowerPoint®. Video files were embedded in the slide show and audio files recorded by the DNP candidate provided voice-over. Once completed the PowerPoint® slide show was converted into a video MP4 file using SnagIt® screen capture software.

Phase IV, implementation focused on the publication of the electronic learning module and completion of the learning activity by interprofessional staff (Durak & Ataizi, 2016; Campbell, 2014; York & Ertner, 2016). The DNP candidate worked with an educational technical associate from the Center for Professional Excellence at Cincinnati Children's Hospital to upload the file into the hospital's learning management system (LMS). The educational technical associate uploaded links to the pretest, posttest, and program evaluation to the LMS using Lectora® an electronic presentation software, the required platform for the hospital's LMS.

The invitation to complete the learning module and participate in the project was sent via email to the interdisciplinary staff of the inpatient psychiatry units through the department's education specialists and to Cincinnati Children's Hospital nursing faculty by the DNP candidate. The email advised staff that participation in the program was voluntary and provided

instruction on accessing and completing the learning activity. The program was available for viewing for 30 days following publication.

Phase V, evaluation, focused on the analysis of the evaluation data and the answers to the pretest and posttest (Durak & Ataizi, 2016; Campbell, 2014; York & Ertmer, 2016). At the end of the 30 day time frame data was downloaded into PDF and Microsoft Excel® files. Pretest, posttest, and program evaluation answers were matched using employee identification numbers.

Chapter 4: Results

The online learning module entitled "To Care for Me, Please Understand Me" was published on the hospital's learning management system on March 1, 2018 and remained active until March 30, 2018. A total of 36 people registered in the online course and 26 completed both the pretest and the posttest. The participant group was reflective of interprofessional clinical teams and included thirteen nurses, six mental health specialists, two child life specialists, one social worker and three unlicensed assistive personnel (UAP). Of those that completed both the pretest and posttest, 25 completed the program evaluation. Content validity was established by review of the tool by subject matter experts. Since the tool was developed by the DNP student for the purpose of this project, Cronbach's α was calculated to assess the internal consistency of both the cultural self-assessment and the cultural knowledge assessment. Both the cultural self-assessment ($\alpha = 0.9$) and the cultural knowledge test ($\alpha = 0.7$) were found to adequate internal reliability.

Pretest and posttest responses were matched through the use of unique employee identification numbers. Data were entered into an electronic spreadsheet and SPSS, a statistical software program, available through Xavier University was used to analyze test scores. Paired sample t-tests were used to examine statistical significance between pretest and posttest scores and Cohen's d was calculated to assess effect size. An alpha level of .05 was set as significance for all statistical tests.

Goal 1: Cultural Knowledge

The first goal of the scholarly project focused on acquisition of cultural knowledge after completing the independent study module on knowledge of transgender concepts. The participants were first asked to rate themselves in terms of the five course objectives of the

module on a five point Likert scale, with 1 representing that they strongly disagreed with the statement and 5 indicating that they strongly agreed with the statement. The scores for each of the objectives were totaled to determine an overall score. There was a statically significant difference in post-test scores (m = 21.92, SD = 2.432) and the pretest score (m = 15.00, SD = 3.544). Cohen's d was calculated to determine effect size (d = 1.61).

The remaining 22 items on the pretest and posttest were aimed at assessing knowledge of participants in terms of language and terminology, health disparities, organizational policy, and developmental aspects of working with transgender youth. Twenty-one of the questions had only one correct answer and one question required participants to choose all items that applied to the question from a specified list of eight responses. Maximum score on the knowledge section was 29. There was a statistically significant increase in cultural knowledge posttest scores (m = 26.23, SD = 2.503) when compared with cultural knowledge pretest scores (m = 18.73, SD = 5.43). Cohen's d was calculated to assess effect size (d = 1.61). A table displaying scores for each participant can be found in Table 1.

Table 1:

Comparison of mean scores cultural self-assessment and cultural knowledge assessment

	Pretest $n = 26$	Posttest $n = 26$	Significance $p < .005$	Effect Size d
Cultural Self-Assessment	15.00	21.92	.000	1.61
Cultural Knowledge Assessment	18.73	26.23	.000	1.61

Goal 2: Intent to Apply Knowledge to Clinical Practice

Open-ended questions provided participants the opportunity to identify the two most important concepts learned that they could integrate into their clinical practice. Of the 26 people who completed the learning module, 25 provided learner satisfaction feedback. Of these 25, one person identified no concepts and three provided only one concept that could be applied to practice. The remaining twenty-one participants each identified two concepts that they intended to incorporate into their clinical work. This resulted in 45 free text comments. For the purpose of reporting these results, free-text comments were categorized in the following way: interacting with transgender youth, organizational policies and procedures, use of preferred names and pronouns, and resources for clinicians and patients.

While it was outside the scope of this scholarly project to assess actual integration of cultural knowledge into practice, the program evaluation did ask what concepts participants learned that they intended to incorporate into their clinical practice. A number of the participants identified that they had a better appreciation of the importance of asking the patient about their preferred name and desired pronouns. Participants also identified the intention to incorporate this gender affirming intervention in clinical practice. In addition, several participants also identified that interdisciplinary communication could be enhanced if the patient's preferred name and pronoun were added to the electronic medical record as demographic information and in the patient plan of care.

Other learners identified the need to examine their own beliefs for personal bias. Understanding one's own beliefs and feelings about different cultural groups is a crucial component in the development of cultural competency (Camphina-Bacote, 2007; Camphina-Bacote, 2011). Cultural awareness involves self-reflection and examination of an individual's

own cultural background (Camphina-Bacote, 2007, Olson, Bidwell, Dune, & Lessey, 2016). This is most effectively accomplished through self-reflection, group discussion, and facilitated conversation (Bidwell, Tinashe, and Lessey, 2016; Camphina-Bacote, 2007; Camphina-Bacote, 2011; Hendson, Reis, & Nicholas, 2015; Olson, Bidwell, Dune, & Lessey, 2016; Sales, Jonkman, Connor, & Hall, 2013). This scholarly project did not include opportunity for guided self-reflection or group discussion. All concepts participants identified as those they would integrate into practice can be found in Appendix L.

Learner Satisfaction Data

The program evaluation consisted of ten questions. The first question asked participants for their unique employee identification number so that the program evaluation could be matched with the pre-test and post-test. One question solicited feedback on the presenting skills of the primary presenter, one question asked how well the independent learning module met the identified objectives, and the remaining five questions aimed to assess satisfaction of the participants with the learning activity. There were two open-ended questions. One asked participants to offer additional comments and one asked participants to identify two concepts from the learning module that they could integrate into their clinical practice.

Overall, 88% of the participants indicated that they “agreed” or “somewhat agreed” that they were satisfied with the learning module and 100% either “agreed” or “somewhat agreed” that completing the module was a worthwhile investment in their professional development. One participant stated “This is a very important topic. I’ve had very little interaction with transgender teens. I feel a little better prepared for the next time we have a patient admitted to our unit.” In addition the majority of participants, reported gaining new knowledge and skill from the online

module and believed that the module would improve patient outcomes. A table displaying all of the program satisfaction data can be found in Appendix M.

Although overall satisfaction with the learning activity was high, more than 50% of the participants reported that the learning activity was too long. To complete all parts of the learning module, the pretest, the video, the posttest, and program evaluation, required 90 minutes for each participant. For the purpose of digital security, hospital employees are limited to accessing internal digital systems outside of the organization's network. One participant reported "this was good information, but it was difficult to complete while I was at work."

In spite of the lengthy learning module, participants described a positive learning experience. Another participant related their own personal experience with the learning module and recommended that the module be required learning by all clinicians within the organization:

> "*...My adult child is trans and came out to me this year at the age of 21. I have been absorbing info like a sponge and still need more info. They will be transitioning (as well as me) and will be having top surgery soon. All employees at CCHMC would benefit from this module. All humans would benefit from it. Educate!!"*

Several participants also indicated had lingering questions that they were unable to have answered by the end of the learning module. One participant stated "I learned a lot. I would have liked to been able to debrief with others after the video. I still have questions and want to seek out more answers." A table containing additional participant feedback can be found in Appendix N.

Chapter 5: Discussion and Conclusion

The findings of this scholarly project will benefit professional development specialists in health organizations in planning and developing culturally sensitive training programs for clinicians. Interprofessional staff play important roles in providing care for transgender and gender non-conforming youth. The independent study video module had positive impact in supporting the process of developing cultural competence in relation to providing care for TGN and gender non-conforming youth. The objective test scores and participant self-assessment suggested that the learners who completed the educational module gained cultural knowledge in providing care to transgender and gender non-conforming youth.

The advantages of using electronic media in professional development activities include the ability to quickly administer the program to a wide audience, assure consistent messaging regarding learning objectives, and offer flexibility in scheduling for frontline clinicians. There is little evidence, however, that electronic learning alone has lasting impact on clinician attitude and behavior. Blending multiple pedagogical approaches may offer improvement in the long term integration of culturally sensitive interventions into clinical practice (Brondandi & Patterson, 2011; Galloway, 2009; Kardon-Edgren, et al., 2010; Lahti, Hätönen, and Välimäki, 2015; Sales, et al., 2013; Walsh-Brennan, et al., 2012).

This scholarly project focused on development of cultural competency when caring for TGN and gender non-conforming youth. The improvement in scores on the cultural knowledge assessment in this project are similar to other studies examining the effects of cultural competency training on cultural knowledge, giving credence to the development of training programs in cultural competence. (Brondani & Patterson, 2011; Carabez, et al., 2015; Kelly Chou, Dibble, & Robertson, 2013; Lim, Brown, & Jones, 2013; Walsh-Brennan, et al., 2012).

Professional development specialists can anticipate that training programs have a positive impact on the acquisition of cultural knowledge by interprofessional staff.

While it was outside the scope of this scholarly project to assess actual integration of cultural knowledge into practice, the program evaluation did ask what concepts participants learned that they intended to incorporate into their clinical practice. A number of the participants identified that they had a better appreciation of the importance of asking the patient about their preferred name and pronouns intended to incorporate this gender affirming intervention in clinical practice. In addition, several participants also identified a desire to learn more.

Limitations

There are limitations when interpreting the results from this project. Although face validity was established through stakeholder review, construct validity of the pretest and posttest has not been established. Validated testing tools would have provided increased assurance that the increase in post-test scores were reflective of actual knowledge acquisition (Polit & Beck, 2012). However, the time limited nature of the scholarly project, limited the ability for adequate validity testing. Internal consistency reliability was found to be adequate for both the cultural self-assessment ($\alpha = 0.9$) and cultural knowledge test ($\alpha = 0.7$).

The independent study activity required 90 minutes to complete. This may have prevented more clinicians from completing the learning activity. Technological barriers aimed at protecting the organizations data infrastructure exist, preventing staff from accessing the learning management system when outside the organization. In order to watch the video, interprofessional staff were required to log into the system during their scheduled work hours or remain on campus after their shift ended. Clinical responsibilities limited the clinician's ability to engage in a lengthy educational activity. Revising the learning activity into a series of shorter

video vignettes may have increased participation. The module could also be revised and offered as online professional development for clinicians working in other health care settings.

Additionally, the learning module was delivered as an isolated activity and relied on self-report by the participants to measure changes in the pre-test and post-test at a single moment in time. Although the open-ended question included in the program evaluation sought to assess the intent to incorporate new learning into practice, the project did not assess for behavioral changes among participants. Objectively measuring the incorporation of culturally proficient practices over time may strengthen the understanding of the impact of cultural sensitivity training. (Hendson, Reis, and Nicholas, 2015). The TGN care clinic has an active patient family support network whose members are motivated to contribute to quality improvement activities in a framework of coproduction of health care services. Additional evaluation of cultural competence in practice could focus on asking patient and families for their perspective on the integration of culturally sensitive communication and practice may also offer insight into the impact of the training activity.

Finally, participation in the online learning module did not require active participation by the learner and did not offer time for structured self-reflection and examination of personal prejudices and biases regarding members of the transgender community. Some participants reported that having the opportunity to ask questions of a facilitator or a member of the transgender community would have brought them deeper insight and understanding. While e-learning activities are effective in reaching a wide audience in a short period of time, the passive nature of the activity may prevent shifts in attitude and belief. One participant stated

> *"...The video said that we should be aware of our biases. I don't think I have any, but now I wonder if I might be unconsciously bringing those into work. I wonder if the patient sees things that I say as offensive even if I don't mean to be."*

The incorporation of follow up sessions that allowed for group discussion, guided self-reflection, and interaction with members of the transgender community may have reinforced learning and supported participants in identifying personal biases and implementing culturally proficient actions in clinical practice (Brondani & Patterson, 2011; Olson, Bidwell, Dune, and Lessey, 2016; Perry, Woodland, and Brunero, 2015; Sales, Jonkman, Connor, and Hall, 2013).

Recommendations to Site for Continuation of Project

The independent study module can be used as a first step in the process of developing cultural competency in the health care milieu. The module can be revised into shorter segments that better allow both clinical and non-clinical staff to participate in learning activities during their work time. Revising the modules to be more representative to specific care areas may better engage adult learners in the learning activity. Program evaluation data provided insight into the ease of participants engaging in learning and completing the learning module during their work time. Without dedicated time away from patient care responsibilities, asking frontline clinicians to complete a 90 minute activity is not sustainable. The content can easily be revised into a series of modules with each module taking no more than a few minutes to complete.

Educational efforts should also target non-clinical staff, such as schedulers, front desk staff, and customer service representatives with knowledge, skill, and information for creating a gender affirming environment. Transgender and gender non-conforming youth and their families encounter a number of clinical and non-clinical support staff throughout the organization who impact satisfaction with the health care encounter. The establishment of a gender affirming

health care environment may fall short if all personnel who interact with patients and families are not included in cultural competency development (Carabez, et al., 2015; Donovan, 2014; Galloway, 2009; Handzo, 2011; Hannssman, Morrison, & Russell, 2008; Kirkpatrick, Esterhuizen, Jessie, &Brown, 2015; McEwing, 2017; Olson, et al., 2016; Perry, Woodland, & Brunero, 2015; Wylie, et al., 2016).

Future training should also be targeted to include providers and organizational leaders. Providers and other leaders who demonstrate cultural awareness, cultural knowledge, and cultural skill provide positive examples for the teams they lead. Interprofessional health care teams with leaders who consistently demonstrate ongoing development of cultural proficiency may be more likely to have employees who demonstrate similar cultural proficiency and desire (Paez, Allen, Carter, & Cooper, 2008).

With an expanded audience, creating a process for staff to complete activities germane to their individual work responsibilities will be important to keep training costs low, yet provide education across a number of work settings. The technology embedded in the organization's LMS can be designed to allow learners who launch the activity to answer a series of questions that identify their specific job responsibilities. Based on the answers provided, learning activities can be assigned that facilitate the acquisition knowledge and skill specific to individual work responsibilities.

In addition, other teaching modalities can be used in conjunction with independent study modules to enhance the development of cultural knowledge (Sales, Jonkman, Connor, & Hall, 2013). The use of a single approach to teaching was cited by participants as an area for development in this scholarly project. Pedagogical approaches that include group discussion, structured self-reflection, debriefing, and clinical immersion combined with independent study

activities may support sustainability of cultural awareness and cultural skill (Brennan, et al., 2012; Harkes, and Kaddoura, 2015, Perry, Woodland, and Brunero, 2015; Truong, Paradies, and Priest, 2014). The development of a teaching toolkit that includes clinical scenarios, guidelines for role play, strategies for guided self-reflection, and recommendations for facilitated group discussion can provide standardized content for training clinical teams (Donovan, 2014). One participant suggested that the modules be used as an introductory activity prior to a group learning sessions.

> *"I think that this would be a great "ice breaker" for many groups and departments. It would be great to follow this up with some additional training or sessions for those that are interested."*

Professional development specialists within the organization can be engaged to support ongoing training efforts.

While the population of youth who publically identify as transgender is growing, professional clinicians may have limited opportunity to develop cultural competency through encounters with transgender youth and their families. Program evaluation further revealed that participants would like the opportunity for cultural immersion experiences with transgender youth. One participant noted: "psych needs to visit the trans clinic and vice-versa." Cultural encounters offer the opportunity for health care professionals to develop cultural understanding through face-to-face encounters with individuals from a specific group (Camphina-Bacote, 2007; Camphina-Bacote, 2011; Harkness, 2015). Clinical departments most frequently providing care for transgender youth could incorporate such activities into clinical orientation programs.

Future Project Suggestions

Transgender and gender non-conforming people face stigma, discrimination, and marginalization in a number of areas of society (Grant, et al., 2011, Gridley, et al., 2011, IOM, 2011). Opportunities to provide training to education professionals can lead to greater social inclusion for transgender students in school. More than 61% of transgender and gender non-conforming youth have reported significant harassment, bullying, and physical as well as sexual assaults while at school. The effects of feeling unsafe at school have resulted in approximately 15% of transgender and gender non-conforming youth to leave school (Grant, et al., 2011). Providing holistic nursing care to patients and families should focus not only on improving the experience of care within the health care organization, but leading change in the community in which patients live. Revising the culturally sensitive education module for use in educational settings can prepare school faculty and staff to create a socially inclusive environment in which transgender and gender non-conforming youth achieve academic success.

Ongoing Evaluations

Understanding of the effect of cultural competency training may be enhanced through longitudinal assessment the incorporation of culturally sensitive behaviors into practice. Developing objective measures demonstrating cultural proficiency in practice will be key in developing meaningful understanding of the effects of training programs on practice. Practice measures indicating cultural proficiency will involve the examination of interpersonal communication and the assessment of patient centered interventions in care planning (American Academy of Nursing, 2010).

Little evidence associates the implementation of education for health care professionals and improvement in patient outcomes (Carabez et al., 2015; Copti, Shahriari, Wanek, &

Fitzsimmons, 2016; Hanssmann, Morrison, & Russian, 2008; Kelly, Chou, Dibble, &, Robertson, 2008; Paez, Allen, Carson, & Cooper, 2008; Sales, Jonkman, Connor, & Hall, 2013). However, patient-clinician communication, patient adherence, and patient satisfaction may be improved when health care providers demonstrate cultural sensitivity in the development of therapeutic relationships. Assessing patient satisfaction with care after the implementation of training programs focusing on cultural sensitive may give additional insights into the effectiveness of professional development programs (Flowers, 2004; Handzo, 2011; Perry, Woodland, and Brunero, 2015).

Recommendations with Cincinnati Children's Strategic Plan

Cincinnati Children's Hospital's five year strategic plan guides the activities of the medical center in realizing its vision to transform care and ensure high quality outcomes for pediatric patients and their families. The community pillar focuses on the establishment of community partnerships to strengthen engagement and deliver excellence in pediatric health care. Of utmost significance to the improvement of care for transgender youth, is a newly establish partnership with a non-profit organization in Cincinnati, Ohio. The Living with Change Foundation's mission is to support transgender youth and their families through community advocacy and education. The foundation is partnering with Cincinnati Children's to further expand the services of the transgender care clinic and develop strong community partnerships. Through the partnership with this foundation, this scholarly project can be expanded to other health care organizations, pediatric primary care offices, schools, and community organizations (Cincinnati Children's Hospital, 2016b; May and O'Rourke, 2018).

In addition, the Office of Diversity and Inclusion at Cincinnati Children's Hospital focuses on the integration of cultural competency throughout the organization to create an

environment in which employees as well as patients and families feel welcome and supported. Ongoing cultural competency training is done through their Cultural Competency Champions Program. The mission of this program focuses on building the skillsets of hospital's employees in the delivery of culturally competent care and fostering a culturally responsive environment. This scholarly project, which aims to build cultural proficiency in caring for transgender and gender non-conforming patients, could be incorporated into this program to facilitate the development of a fully inclusive environment (Cincinnati Children's Hospital, n.d.)

Applications of Findings in Other Settings

While this scholarly project focused on professional development of practicing clinicians, the project can also be expanded to focus on pre-licensure educational programs. Literature suggests concepts related to caring for transgender patients are largely missing from pre-licensure educational programs. This curricular gap contributes to knowledge gaps in clinical practice professionals (Alegria, 2011; Beemyn, 2013, Eliason, DeJoseph, and Dibble, Institute of Medicine, 2011; Lim, Brown, and Jones, 2013; Lim and Eliason, 2015; Obedin-Maliver, et al., 2011; Sanchez, et al., 2006; Sequeria, Chakraborty, and Panunti, 2012; Stoddard, Leibowitz, Ton and Snowden, 2011).

In the State of Ohio, there is shift in public policy addressing this educational gap. The Ohio Board of Nursing has added both sexual orientation and gender identity issues as a required humanities topic in pre-licensure nursing curriculum (Ohio Administrative Code: Rules and Regulations § 4723-5-13, 2018). However, literature suggests the inclusion of gender and sexual diversity concepts in professional pre-licensure educational program is limited (Copti, Shahriari, Wanek, and Fitzsimmons, 2016; Lim, Johnson, and Eliason, 2015; Obedin-Matliver, et. al., 2011 Rutherford, McIntyre, Daley, and Rose, 2012). Undergraduate nursing programs should assess

their curriculum for evidence that culturally sensitive content focusing on the care of transgender and gender non-conforming patients.

Furthermore, The American Academy of Colleges of Nursing (AACN) recommends that baccalaureate nursing programs include content preparing student to practice with cultural sensitivity when working with diverse and vulnerable populations (AACN, 2010). Undergraduate education programs can begin by assessing the cultural knowledge of students, examine current course objectives, and develop content maps to assure that curriculum is inclusive of sexual minority and gender variant populations (Harkess and Kaddoura, 2015; Kardon-Edgren, et al., 2010; Wang, 2011).

Implications for Practice

Cultural proficiency in practice is evident when clinicians exhibit behaviors that are respectful of individual differences and establish an environment in which interventions reflect these differences. Clinicians who successfully engage in the development of cultural proficiency will lead efforts in achieving health care goals outlined by the quadruple aim: lower health care costs, better patient and clinician experience, and improved population health outcomes. (Camphina-Bacote, 2007; Camphina-Bacote, 2011; Coleman, Thomas-Hall, and Blassingame, 2015; Hanzo, 2011).

Culturally sensitive practice can enhance communication and build trust between the health care professional and the patient and family. As trust grows therapeutic relationships between the health care team and the patient emerge. Effective therapeutic relationships support patient adherence to evidence-based care recommendations resulting in improved population health outcomes. Health care organizations with staff who are well prepared for addressing the sensitive needs of vulnerable populations contribute to improvements in access to care and

reduction in health disparities (Alegria, 2011; Camphina-Bacote, 2007; Camphina-Bacote, 2011; Coleman, Thomas-Hall, and Blassingame, 2015; Hanzo, 2011; IOM, 2011).

Transgender and gender non-conforming people commonly report discrimination in health care encounters. These behaviors range from insensitive communication to refusal of care by providers and may result in the avoidance of preventative care and delays in seeking curative treatments. Interprofessional staff with cultural proficiency contribute to the establishment of a gender affirming health care environment and, setting the stage for improved patient experiences (McConnell, Birkett, and Mustanski, 2016; Meniville, 2011; Olsen, Forbes, and Belzer, 2011; Society for Adolescent Health and Medicine, 2013; Stoddard, Leibowitz, Ton and Snowden, 2011; WPATH, 2011; Yadegarad, Meinhold-Bergman, and Ho., 2014).

Future Research

Currently, standards of care for TGN and gender non-conforming children and adolescents are rooted in expert opinion and evidence based guidelines for care are scarce. (WPATH, 2011). Research has traditionally focused on the continuum of care for adults seeking gender reassignment surgery and the prevalence of co-morbid conditions (Grant, et al., 2011; IOM, 2011; WPATH, 2012). More research and improvement efforts are needed in order to define standardized population based outcomes and identify evidence based approaches to care that improve population health.

Gender affirming care for transgender youth is recommended and includes support of both social and physical transition. Social transition focuses on aligning the child's gender expression (i. e. choice of clothing, hairstyle, preferred name, and pronouns) with their gender identity. Social transition is fairly easy to manage until the onset of puberty. The development of secondary sex characteristics may intensify psychological distress in children who already have

distress regarding their gender incongruence. The accepted standard of care for these children is the administration of a continuous gonadotropin releasing hormone (GnRH) antagonist to delay the development of secondary sex characteristics (American Psychological Association, 2012; Conard, 2017; Lambrese, 2010, WPATH, 2012). There is a need for additional research into the long-term physical and psychological effects of GnRH blocking therapy (Alegria, 2011; Coleman, et al., 2015; Gardner & Safer, 2013; Guss, Shumer, & Katz-Wise, 2015; IOM, 2011; Klein, Elizy, & Olson, 2015; Leibowitz & Telingator, 2012; WPATH, 2011).

More research is also needed on the most optimal educational modalities for delivering culturally competent training to health care professionals. A number of studies suggest that approaches offering multiple modalities, including electronic learning, simulated patients, role play, clinical scenarios, and guided reflection provide improved cultural knowledge and awareness. However there is little empirical evidence to suggest that these educational approaches result in long term improvement in cultural skill or sustained integration of culturally sensitive actions in clinical practice (Carabez et al., 2015; Copti, Shahriari, Wanek, & Fitzsimmons, 2016; Hanssmann, Morrison, & Russian, 2008; Kelly, Chou, Dibble, &, Robertson, 2008; Paez, Allen, Carson, & Cooper, 2008; Sales, Jonkman, Connor, & Hall, 2013).

There is also limited research examining the impact of culturally sensitive education for professionals on patient and family satisfaction. Health care educators should examine how engagement of patients and families in the development of educational programs contribute to the development of cultural knowledge, skill, and attitude and what impact training efforts have on patient and family experience (Carabez et al., 2015; Copti, Shahriari, Wanek, & Fitzsimmons, 2016; Hanssmann, Morrison, & Russian, 2008; Kelly, Chou, Dibble, &, Robertson, 2008; Paez, Allen, Carson, & Cooper, 2008; Sales, Jonkman, Connor, & Hall, 2013).

Application to DNP Roles other than Population Health Leadership

Scholarly nursing literature focusing on the health care needs and patient centered outcomes for transgender and gender non-conforming people is limited (Eliason, Dibble, and DeJoseph, 2010). The creation of an agenda that focuses on improving outcomes, controlling health care costs and improving the patient experience for this vulnerable population should be of utmost importance to nursing leaders across care settings. Not only should the agenda focus on implementing culturally sensitive education of interprofessional clinicians, but should include advancing scientific discovery through research, and supporting public policy to increase social inclusion and decrease barriers to care. In addition, nursing leaders should focus on aligning organizational policies and procedures that transform the health care environment into a space that all people are treated with respect and dignity (American Nurses Association, 2018; Eliason, Dibble, DeJoseph, 2010; Grant, et al., 2011; IOM, 2011; Keepnews, 2011; Lim, Brown, and Jones, 2013; Lim, Johnson, & Eliason, 2015; Winter, et al., 2016).

Nursing leaders should support and advocate for public policy and legislation that addresses discrimination against gender identity in all aspects of society. There are few federal level laws that specify gender identity in anti-discrimination laws, leaving it up to individual states to create statutes within their region. However, state level laws protecting transgender and gender non-conforming people against discrimination exist only sporadically across the country. No state in the country offers health care benefits for transgender specific health care. Only 14 states identify transgender populations in antidiscrimination laws in education and only 20 states have statutes banning discrimination in housing and public accommodations (Human Rights Campaign, 2018).

In alignment with the American Nurses Association Code of Ethics (ANA), nurses have an obligation to respect the dignity of all persons and support efforts that uphold the rights of vulnerable populations (ANA, 2018). Nurses working with transgender and gender non-conforming youth should take an active role in educating themselves in order to promote public policy aimed at eliminating discrimination, marginalization, and social isolation for transgender and gender non-conforming people.

Conclusion

The subject of cultural competence in the provision of care to transgender and gender non-conforming youth is largely absent from pre-licensure education for health care professionals, resulting in health care professionals who may not be equipped to engage in culturally sensitive care. To address the cultural knowledge gap, a video learning module was developed and published in the organization's learning management system. Examination of the pre-test and post-test scores of a self-assessment and knowledge test indicated that participants gained knowledge after participating in the online learning program. In addition, interprofessional staff were able to identify how they would apply their learning to clinical practice.

These findings support the idea that cultural competency training programs positively impact cultural knowledge and skill. Further testing will be required to understand the sustained application of cultural skill to practice. Additional training to supplement the online learning activity may provide additional impact on cultural attitudes and provide opportunity for self-reflection to identify and address personal biases. It is of upmost importance that health care professionals to continuously strive for achieving cultural competence when working with transgender and gender non-conforming youth and their families in order to transform the health

care system into a safe and welcoming space where all people are valued for their uniqueness and provided with care that meets their individual needs.

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Appendix A: Transgender Terminology and Definitions

National Center for Transgender Equality, 2014

Agender: 'without gender'. It can be seen either as a non-binary gender identity or as a statement of not having a gender identity.

Bigender: One who has a significant gender identity that encompasses both genders, male and female. Some may feel that one side or the other is stronger, but both sides are there.

Cisgender: describes related types of gender identity perceptions, where individuals' experiences of their own gender agree with the sex they were assigned at birth.

Coming Out: Refers to voluntarily making public one's sexual orientation and/or gender identity.

Cross Dresser: A term for people who dress in clothing traditionally or stereotypically worn by the other sex, but who generally have no intent to live full-time as the other gender. The older term "transvestite" is considered derogatory by many in the United States.

Drag Queen: Used to refer to male performers who dress as women for the purpose of entertaining others at bars, clubs, or other events. It is also sometimes used in a derogatory manner to refer to transgender women.

Drag King: Used to refer to female performers who dress as men for the purposes of entertaining others at bars, clubs, or other events.

FTM: A person who transitions from "female-to-male," meaning a person who was assigned female at birth, but identifies and lives as a male. Also known as a "transgender man."

Gay: A sexual orientation toward people of the same gender.

Gender: A social construct used to classify a person as a man, woman, or some other identity. Fundamentally different from the sex one is assigned at birth.

Gender Expression: How a person represents or expresses one's gender identity to others, often through behavior, clothing, hairstyles, voice, or body characteristics.

Gender Identity: an individual's internal sense of being male, female, or something else. Since gender identity is internal, one's gender identity is not necessarily visible to others.

Gender nonconforming: A term for individuals whose gender expression is different from societal expectations related to gender.

Genderqueer: A term used by some individuals who identify as neither entirely male nor entirely female; also known as non-binary.

Heterosexism: The assumption that all people are or should be heterosexual. Heterosexism excludes the needs, concerns, and life experiences of lesbian, gay, bisexual and queer people while it gives advantages to heterosexual people. It is often a subtle form of oppression, which reinforces realities of silence and invisibility.

Heterosexuality: A sexual orientation in which a person feels physically and emotionally attracted to people of a gender other than their own.

Homophobia: The irrational hatred and fear of LGBTQIA+ people. Homophobia includes prejudice, discrimination, harassment, and acts of violence brought on by fear and hatred. It occurs on personal, institutional, and societal levels.

Homosexual/Homosexuality: An outdated term to describe a sexual orientation in which a person feels physically and emotionally attracted to people of the same gender.

Internalized homophobia: The fear and self-hate of one's own LGBBTQIA identity, that occurs for many individuals who have learned negative ideas about LGBTQIA+ people throughout childhood. One form of internalized oppression is the acceptance of the myths and stereotypes applied to the oppressed group.

Intersex: A term used for people who are born with a reproductive or sexual anatomy and/or chromosome pattern that does not seem to fit typical definitions of male or female. Intersex conditions are also known as differences of sex development (DSD).

LBGT: An acronym for lesbian, bisexual, gay, and transgender. It is used to refer to the community as a whole.

MTF: A person who transitions from "male-to-female," meaning a person who was assigned male at birth, but identifies and lives as a female. Also known as a "transgender woman."

Non-Binary: gender that is not exclusively male or female; also known as genderqueer

Pansexual/Omnisexual: Terms used to describe people who have romantic, sexual or affectional desire for people of all genders and sexes.

Queer: A term used to refer to lesbian, gay, bisexual and, often also transgender, people. Some use queer as an alternative to "gay" in an effort to be more inclusive. Depending on the user, the term has either a derogatory or an affirming connotation, as many have sought to reclaim the term that was once widely used in a negative way.

Sex: a categorization based on the appearance of the genitalia at birth

Sex/Gender Reassignment Surgery: Surgical procedures that change one's body to better reflect a person's gender identity. This may include different procedures, including those sometimes also referred to as "top surgery" (breast augmentation or removal) or "bottom

surgery" (altering genitals). Contrary to popular belief, there is not one surgery; in fact there are many different surgeries. These surgeries are medically necessary for some people, however not all people want, need, or can have surgery as part of their transition. "Sex change surgery" is considered a derogatory term by many.

Sexual Orientation: A term describing a person's attraction to members of the same sex and/or a different sex, usually defined as lesbian, gay, bisexual, heterosexual, or asexual.

Sexuality: The components of a person that include their biological sex, sexual orientation, gender identity, sexual practices, etc.

Sexual Orientation: An enduring emotional, romantic, or sexual attraction. Sexual orientation is fluid. Asexuality is also considered a sexual orientation.

Transphobia: The fear or hatred of transgender people or people who do not meet society's gender role expectations.

Trans: an abbreviated form of the word transgender

Transgender Man: A term for a transgender individual who currently identifies as a man

Transgender Woman: a term for a transgender individual who currently identifies as a woman.

Transsexual: An older term for people whose gender identity is different from their assigned sex at birth who seeks to transition from male to female or female to male. Many do not prefer this term because it is thought to sound overly clinical.

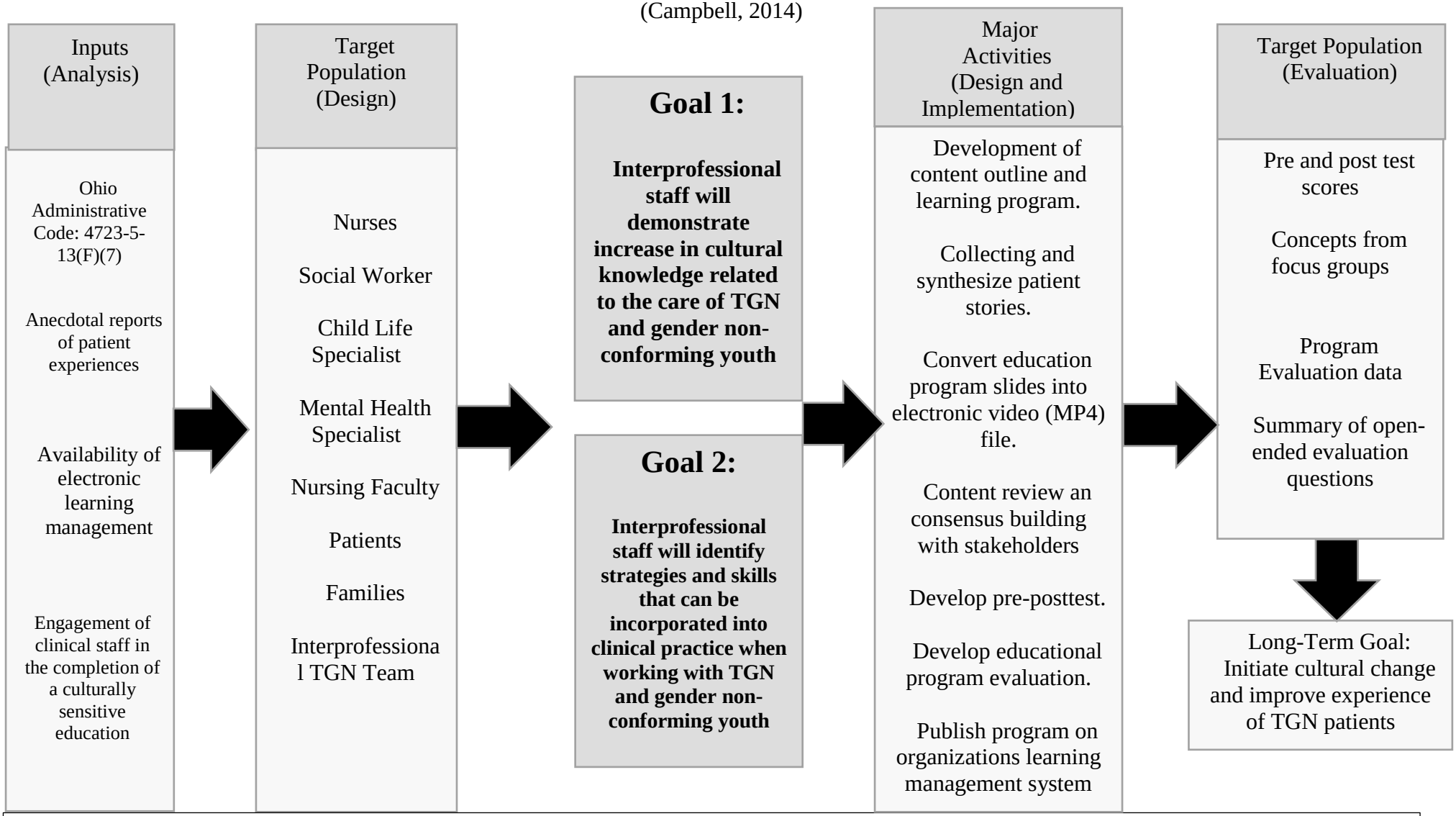
Transition: The time when a person begins to living as the gender with which they identify rather than the gender they were assigned at birth, which often includes changing one's first name and dressing and grooming differently. Transitioning may or may not also include medical and legal aspects, including taking hormones, having surgery, or changing identity documents (e.g. driver's license, Social Security record) to reflect one's gender identity. Medical and legal steps are often difficult for people to afford.

Transgender: a term for people whose gender identity, expression or behavior is different from those typically associated with their assigned sex at birth. Transgender is a broad term and is good for non-transgender people to use.

Two-Spirit: A contemporary term that refers to the historical and current First Nations people whose individuals spirits were a blend of male and female spirits. This term has been reclaimed by some in Native American LGBT communities in order to honor their heritage and provide an alternative to the Western labels of gay, lesbian, bisexual, or transgender.

Appendix B: Culturally Sensitive Transgender Education for Health Professionals

(Campbell, 2014)



Assumptions: Gender identity falls on a continuum rather than within traditional binary categories. Interprofessional health care professionals lack understanding of the care of TGN adolescents. TGN adolescents experience discrimination and marginalization in health care encounters. Expanding the knowledge base regarding care of TGN adolescents can influence the sensitivity of health care professionals. Patients have valuable lived experience and want to use their experiences to coproduce health care services. Health care professionals have a responsibility to seek education that will improve patient experience. Preparing faculty will support the inclusion of culturally sensitive TGN care in prelicensure academic programs.

Appendix C: Evidence Table

Author, Year	Country	Purpose/Research Question(s)	Setting, Participants	Study, Design, Sample Size	Data Collection Tool	Statistical Analysis	Major Findings	Level of Evidence
Alegria, 2011	U.S.	To educate nurse practitioners regarding the definition and range of transgenderism, social influences on transgender persons, and health care for transgender persons	NA	Review of the Literature	NA	NA	Transgender persons remain marginalized and may remain closeted for fear of reprisals. Transgender people encounter issues related to navigation of transition. Lack of education in nursing related to transgender issues reinforces these issues. Nurse practitioners should support a gender affirming approach to health care, be sensitive to language.	5b
Amnesty International 2014	6 countries in Europe	To assess the legal rights for gender designation on legal documents and access to gender affirming or transition related medical care in 6 European Countries	NA	Comparative review of relevant literature and legal documents	NA	NA	The ability to change gender markers on legal documents varies from country to country. Many European countries require hormone or surgical transition before such changes can be made on identification documents. The experience of discrimination in health care is commonplace across Europe.	5b
Balazer Hutta 2012	72 countries worldwide	To compare the legal and health care experiences of transgender people across the world	NA	Comparative Review of relevant literature and legal issues	NA	NA	Legal and human rights for transgender people vary across regions and between countries. Discrimination in health care settings is common. Violence against transgender and gender non-conforming people is not unusual in different countries	5B
Hannssman, Morrison, and Russian, 2008	U.S	To examine the ways in which curriculum developers and trainers can build effective TGN training in health care settings	Community based education program	Semi-structured interviews	NA	Qualitative	Based on qualitative data, the authors propose guidelines for the development of TGN curriculum training.	4a

Author, Year	**Country**	**Purpose/Research Question(s)**	**Setting, Participants**	**Study, Design, Sample Size**	**Data Collection Tool**	**Statistical Analysis**	**Major Findings**	**Level of Evidence**
Kelly, Chou, Dibble, and Robertson, 2008	U.S.	To assess the impact of LBGT curricular content on the knowledge and attitude outcomes among second year medical students.	75 medical students enrolled in a life cycles course at one school of medicine	Pre-post test	Investigator created survey based on The Index of Attitudes toward Homosexuals	Descriptive statistics Paired t-test	Simple curricular intervention led to significant short term changes in a small number of subjects.	4a
Lim, Brown, and Jones, 2012	U.S.	To examine the role of nursing in the health of LBGT populations.	NA	Review of the Literature	NA	NA	1. Lack of education in schools of nursing regarding LBGT issues. 2. Culturally sensitive training for interprofessional teams should include LBGT issues 3. Lack of education in nursing related to transgender issues reinforces these issues. 4. Little nursing literature exists related to nursing or nursing student's attitudes regarding LBGT populations. 5. Nurses can be pivotal in reducing discrimination and barriers in health care for LBGT populations.	5b
Lim, Johnson, and Eliason, 2015	U.S.	To assess the knowledge of faculty in baccalaureate nursing education programs and their readiness to teach about LBGT issues.	721 administrators from baccalaureate nursing programs invited to forward the survey to their faculty. 1231 faculty provided 823 qualitative comments	Cross-sectional non-probability survey	Mix of quantitative and qualitative questions developed by the researchers	Qualitative content analysis	1. Knowledge, experience, and readiness for teaching LBGT concepts is limited. 2. LBGT faculty reported greater awareness 3. Average curricular time for LBGT concepts: 2.12 hours	5b

Author, Year	Country	Purpose/Research Question(s)	Setting, Participants	Study, Design, Sample Size	Data Collection Tool	Statistical Analysis	Major Findings	Level of Evidence
Obedin-Maliver, et al., 2011	U.S. and Canada	Characterize LBGT-related medical curricula Assess Dean's assessment of institutions LBGT curriculum.	Deans at allopathic or osteopathic medical schools in the U.S. and Canada	176 Deans of medical schools	13 question web-based questionnaire	Descriptive statistics	Median reported curricular time of LBTG related content is low. Quality of content, subject matter included, and quality of instruction varied.	4a
Paez,Allen, Carson Cooper 2008	US	To determine if a relationship exists between the cultural competency of providers and their work setting.	23 primary care clinic locations in Baltimore, MD and Wilmington DE.	Cross-sectional survey	Cultural competency measure drawn from CLAS Standards	Descriptive statistics and simple linear regression	Primary care providers whose clinics demonstrated cultural competence were more likely to have attitudes and behaviors that demonstrated cultural competence	4b
Riggs Due 2013	Australia	To assess the experience of Australians who identify as transgender or gender non-conforming.	2 different surveys of 188 people One focused on TGN men (FTM) and one focused on trans women (MTF).	Descriptive cross-sectional survey	Online survey	Descriptive Statistics	There is a need for better training of health care professionals. Authors advocate for the provision of government funded transition services	4b
Sanchez, Rabatin, Sanchez, Hubbard, and Kalet, 2006	U.S.	Assess medical student's ability to care for LBGT patients and identify potential deficiencies in curriculum.	One metropolitan medical school	248 Third and fourth year medical students	64 question quantitative survey	Descriptive Statistics	Medical students with more exposure to LBGT patients tended to complete more comprehensive histories, have more positive and accepting attitudes, and possess greater knowledge than medical students with no exposure.	4b
Sales, Jonkman, Connor and Hall 2013	U.S.	To determine the degree to which 3 different interventions enhance cultural competency in pharmacy students	One school of pharmacy	Students enrolled in the Profession of Pharmacy Course (108 student divided into three groups)	Pre and posttest design	Paired t-test	Each education approach had impact on a specific domain of learning but none affected all domains. Suggestions by authors that mixed method instruction would be more impactful.	4b
Sequeira, Chakraboriti, and Panunti, 2012	U.S.	To use LBGT related education sessions to gauge undergraduate medical students' interest and their perceptions of relevance	Tulane University School of Medicine	35 medical school students	Mix of quantitative and qualitative questions given after attending optional education sessions	Themed grouping of answers to survey questions	A lack of LBGT content is included in medical school curriculum. LBGT content would be valuable in preparing future providers to provide care.	4b

Author, Year	Country	Purpose/Research Question(s)	Setting, Participants	Study, Design, Sample Size	Data Collection Tool	Statistical Analysis	Major Findings	Level of Evidence
Whittle, Turner, Combs, and Rhodes, 2008	13 countries Across Europe	To assess the experiences of transgender people regarding inequality and discrimination when accessing health care in Europe.		Mixed qualitative/ Quantitative 615 FTM and 1349 MTF transgender people	Trans Europe Survey Focus groups	Descriptive analysis	High number of TGN people across Europe do not have medical coverage for transition related care. Nearly 1/3 of TGN people in the study were refused care by a health care professional. There is a shortage of knowledgeable specialty providers for TGN health care across Europe. Transgender identity impacted how individuals were treated by clinicians	2a/2b
Yadegarfard, M. Meinhold-Bergmann, M., & Ho, R. (2014)	Thailand	To examine the relationship between family rejection, social isolation, and loneliness as predictors of negative health outcomes (depression, suicidal ideation and sexual risk behavior).	Transgender participants recruited through Rainbow Sky Association. Cisgender participants recruited from male students at Assumption University, Thailand	260 male respondents: 129 reporting as transgender and 131 self-identifying as cisgender	Demographics and family rejection measured via a researcher generated questionnaire.	MANOVA Multiple regression analysis Social isolation measured using Social support appraisal scale.	Family rejection, social isolation, and loneliness were significant predictors of level of depression, suicidality, and sexual risk behaviors in both cisgender and transgender adolescents. Transgender adolescents demonstrated higher levels of family rejection, more social isolation, and greater feelings of loneliness than cisgender peers.	4a

Appendix D: LEGEND Framework

(CCHMC, n. d.)

Cincinnati Children's

LEGEND
Let Evidence Guide Every New Decision
Table of Evidence Levels

TABLE OF EVIDENCE LEVELS: ***Levels of Individual Studies by Domain, Study Design, & Quality***

DOMAIN OF CLINICAL QUESTION	TYPE OF STUDY / STUDY DESIGN: Systematic Review Meta-Analysis	Meta-Synthesis	RCT *	CCT *	Psychometric Study	Qualitative Study	Cohort – Prospective	Cohort – Retrospective	Case – Control	Longitudinal (Before/After, Time Series)	Cross – Sectional	Descriptive Study Epidemiology Case Series	Quality Improvement (PDSA)	Mixed Methods Study	Decision Analysis Economic Analysis Computer Simulation	Guidelines	Case Reports N-of-1 Study	Bench Study	Published Expert Opinion	Local Consensus Published Abstracts
Intervention																				
Treatment, Therapy, Prevention, Harm, Quality Improvement	1a* 1b*		2a 2b	3a 3b		4a 4b	3a 3b	4a 4b	4a 4b	4a 4b	4a 4b	4a 4b	4a 4b	2a/2b 3a/3b 4a/4b	5a 5b	5a 5b	5a 5b	5a 5b	5a 5b	5
Diagnosis / Assessment	1a 1b			2a 2b	2a 2b		3a 3b	4a 4b			4a 4b	4a 4b		2a/2b 3a/3b 4a/4b	5a 5b	5a 5b	5a 5b	5a 5b	5a 5b	5
Prognosis	1a 1b						2a 2b	3a 3b	4a 4b		4a 4b	4a 4b		2/3/4 a/b	5a 5b	5a 5b	5a 5b	5a 5b	5a 5b	5
Etiology / Risk Factors	1a 1b		2a 2b	3a 3b			3a 3b	4a 4b	4a 4b		4a 4b	4a 4b		2/3/4 a/b	5a 5b	5a 5b	5a 5b	5a 5b	5a 5b	5
Incidence	1a 1b						2a 2b	3a 3b				4a 4b				5a 5b	5a 5b	5a 5b	5a 5b	5
Prevalence	1a 1b								2a 2b		3a 3b	4a 4b				5a 5b	5a 5b	5a 5b	5a 5b	5
Meaning / KAB*		1a 1b				2a 2b								2/3/4 a/b		5a 5b	5a 5b	5a 5b	5a 5b	5

* *a = good quality study b = lesser quality study*

* *CCT = Controlled Clinical Trial KAB = Knowledge, Attitudes, and Beliefs RCT = Randomized Controlled Trial*

Shaded boxes indicate study design may not be appropriate or commonly used for the domain of the clinical question.

Development for this table is based on:
1. Phillips, et al: Oxford Centre for Evidence-based Medicine Levels of Evidence, 2001. Last accessed Nov 14, 2007 from http://www.cebm.net/index.aspx?o=1025.
2. Fineout-Overholt and Johnston: Teaching EBP: asking searchable, answerable clinical questions. *Worldviews Evid Based Nurs*, 2(3): 157-60, 2005.

 March 26, 2012
James M. Anderson Center for Health Systems Excellence | Center for Professional Excellence | Occupational Therapy and Physical Therapy | Edward L. Pratt Research Library
Evidence-Based Decision Making – www.cincinnatichildrens.org/evidence

Cincinnati Children's

LEGEND
Let Evidence Guide Every New Decision
Grading the Body of Evidence

Grade	Method			
High *Sufficient number of high quality studies with consistent* results*	***Step 1*** *(see worksheet to summarize the body of evidence)*	NUMBER OF STUDIES	QUALITY OF STUDIES*	CONSISTENCY OF RESULTS*
		1	1a	NA
		2+	1a or 2a	Yes
		5+	1a, 2a, or 3a	Yes
		5+	1a, 1b, 2a, or 2b	Yes
	Step 2 *(if the studies didn't fit neatly into a box in step 1)*	• multiple studies, unless large effect and very clinically important • strong designs for answering the question addressed • clinically important and consistent results with minor exceptions at most • free of any significant doubts about validity *(generalizability, bias, design flaws)* • adequate statistical power *(including studies showing no difference)*		
	Confirmation Step	Further research is unlikely to change our confidence in the answer to the clinical question.		
Moderate *A single well-done study or Multiple studies of lesser quality or with some uncertainty*	***Step 1*** *(see worksheet to summarize the body of evidence)*	NUMBER OF STUDIES	QUALITY OF STUDIES*	CONSISTENCY OF RESULTS*
		1	2a	NA
		3+	1, 2, 3; a or b	Yes
		5+	1, 2, 3, 4; a or b	Yes

	Step 2
	(if the studies didn't fit neatly into a box in step 1)
		Either
		• multiple studies
		• strong designs for answering the question addressed
		• some uncertainty due to either
		  • validity threats *(generalizability, bias, design flaws or adequacy of statistical power)* or
		  • inconsistency
		Or
		• multiple studies
		• weaker designs for answering the question addressed
		• consistent results with minor exceptions at most		

	Confirmation Step	Further research is likely to have an important impact on our confidence in the precision of the answer to the clinical question, and may even change the answer itself.		
Low *Studies with insufficient quality including case reports, case studies, general reviews, and local consensus*	***Step 1*** *(see worksheet to summarize the body of evidence)*	NUMBER OF STUDIES	QUALITY OF STUDIES*	CONSISTENCY OF RESULTS*
		1+	Insufficient quality to meet Moderate criteria above	Yes
		Local opinion or Published non-research articles	5	Yes

	Step 2
	(if the studies didn't fit neatly into a box in step 1)
		• health professional opinion is the only relevant published information
		• local consensus is clear
		• uncertainty due to either
		  • validity threats (generalizability, bias, design flaws or adequacy of statistical power) or
		  • inconsistency		

	Confirmation Step	There is published and/or local consensus, but little or no research, to answer the clinical question. Further research is very likely to have an important impact on the answer.		
Grade Not Assignable *Insufficient design or execution, too few studies, inconsistent results, and lack of consensus*	***Step 1***	NUMBER OF STUDIES	QUALITY OF STUDIES*	CONSISTENCY OF RESULTS*
		0+	Any evidence level	No
		Local opinion	5	No
	Step 2 *(if the studies didn't fit neatly into a box in step 1)*	• studies have not been done, or • published studies are seriously flawed, and/or • published studies give inconsistent results		
	Confirmation Step	There is insufficient evidence and lack of consensus to answer the clinical question.		

***Note: When there is both high and low quality evidence and the results are inconsistent:**
- **Disregard lower quality evidence if the lower quality evidence is inconsistent with all higher quality evidence.**
- **Avoid disregarding lower quality evidence when inconsistency is at multiple quality levels, because bias could be introduced when determining which evidence to disregard.**

Some of the concepts for this development are based on: Atkins et al: Grading quality of evidence and strength of recommendations. *BMJ*, 328(7454): 1490, 2004; Briss et al: Developing an evidence-based Guide to Community Preventive Services--methods. The Task Force on Community Preventive Services. *Am J Prev Med*, 18(1 Suppl): 35-43, 2000; & Greer et al: A practical approach to evidence grading. *It Comm J Qual Improv*, 26(12): 700-12, 2000.

Appendix E: Application to CCHMC Innovation and Research Council

CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER
DEPARTMENT OF PATIENT SERVICES

APPLICATION FOR ALLIED HEALTH AND NURSING INQUIRY PROJECTS CONDUCTED AT CCHMC TO FULFILL DEGREE REQUIREMENTS

(e.g., Master's Thesis, Clinical Doctorate, Research Doctorate)

STUDENT: Teresa A. Couch, MSN, MEd, RN-BC

DEPARTMENT/UNIT: Center for Professional Excellence, Patient Services Informatics

DEPT/UNIT MAIL LOCATION (MLC): 3020

STUDENT EMAIL: Coucht@xavier.edu

PROJECT TITLE: Culturally Sensitive Transgender Education for Health Care Professionals

PROJECT TYPE: ☐ Research xx Evidence-Based Practice ☐ Quality Improvement

ACADEMIC INSTITUTION: Xavier University

ADVISOR NAME: Susan Schmidt, Ph.D., A.P.R.N., C.O.H.N.-S., C.N.S., C.N.L.

ADVISOR PHONE/EMAIL: schmidt@xavier.edu Phone: (513) 745-3815

DEGREE PROGRAM: ☐ Master's xx Clinical Doctorate ☐ Research Doctorate ☐ Other _____

CCHMC TUITION ASSISTANCE (Cohort or Reimbursement): xx Yes ☐ No

ANTICIPATED PROJECT COMPLETION DATE: May 2018

By signing below, we agree to:

- Conduct the project in accordance with organizational policies and standards for research & scholarship;
- Ensure completion of the project by the above date;
- Report any significant changes in the direction or scope of the project to the I & R Council leadership committee;
- Submit a final report to the I & R Council leadership committee within 90 days of project completion;
- Inform the Council of any resulting publications or presentations up to 24 months after project completion.

STUDENT: Teresa A Couch DATE: 9/12/2017
Student Name Printed: Teresa A. Couch, MSN, MEd, RN-BC

ACADEMIC ADVISOR: Susan M Schmidt DATE: 9/12/2017
Advisor Name Printed: Susan Schmidt, Ph.D., A.P.R.N., C.O.H.N.-S., C.N.S., C.N.L.

CLINICAL DIR/DEPT DIR: LeeAnn C. Conard DO DATE: 9/8/2017
Director Name Printed: Lee Ann Conard, RPh, DO, MPH

DIRECT SUPERVISOR/MGR: Whittney J Brady DNP, RN NE-BC DATE: 9/8/2017
Supervisor Name Printed: Whittney Brady, DNP, RN

Title: **Culturally Sensitive Transgender Education for Health Care Professionals**

PI: **T. Couch**

Criterion	Met	Not Met	Comments
Project is aligned with CCHMC/PS strategic priorities.	x		
Project is a unique contribution and does not duplicate effort from another site of care.	x		
Progress and deliverables are clearly articulated.	x		
Academic program agrees to provide mentorship and required resources.	x		

■ This project may proceed to Divisional Scientific Review/IRB Review.

□ This project requires revision and resubmission to the I & R Council prior to submission for Divisional Scientific Review/IRB Review.

Signed,

Jessica Thielen, MSN, APRN, CNP 10/4/17

Co-Chair, Innovation & Research Tenet Council Date

Appendix F: Institutional Review Board Approval

Institutional Review Board - Federalwide Assurance #00002988

Cincinnati Children's Hospital Medical Center

Date: 12/4/2017

From: CCHMC IRB

To: Principal Investigator: Teresa Couch
Patient Services Informatics

Re: Study ID: 2017-5247
Study Title: Culturally Sensitive Transgender Education for Health Care Professionals

The Institutional Review Board (IRB) received the above referenced proposal. It was determined that this research is **EXEMPT** from IRB review in accordance with **45 CFR 46.101 (b)** (see below) on 12/4/2017. Ongoing IRB oversight is not required.

Please note the following requirements:

AMENDMENTS: The principal investigator is responsible for notifying the IRB of any changes in the protocol, participating investigators, procedures, recruitment, consent forms, FDA status, or conflicts of interest. Approval is based on the information as submitted. New procedures cannot be initiated until IRB approval has been given. If you wish to change any aspect of this study, please submit an Amendment via ePAS to the IRB, providing a justification for each requested change.

UNANTICIPATED PROBLEMS: The investigator is responsible for reporting **unanticipated problems** promptly to the IRB via ePAS according to current reporting policies.

Please note: This approval is through the IRB only. You may be responsible for reporting to other regulatory officials (e.g. VA Research and Development Office, UC Health – University Hospital). Please check with your institution and department to ensure you have met all reporting requirements.

Statement regarding International Conference on Harmonization and Good clinical Practices: The Institutional Review Board is duly constituted (fulfilling FDA requirements for diversity), has written procedures for initial and continuing review of clinical trials: prepares written minutes of convened meetings and retains records pertaining to the review and approval process; all in compliance with requirements defined in 21 CFR Parts 50, 56 and 312 Code of Federal Regulations. This institution is in compliance with the ICH GCP as adopted by FDA/DHHS.

Thank you for your cooperation during the review process.

---

§46.101 (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

§46.101 (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

Note: The exemptions at 45 CFR 46.101(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization, Subparts B and C. The exemption at 45 CFR 46.101(b)(2), for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, Subpart D, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

Appendix G: Xavier University/Cincinnati Children's Hospital Reliance Agreement

IRB Reliance Agreement
CCHMC IRB of Record

Cincinnati Children's® Hospital Medical Center

Relying Site	Xavier University

This Agreement by and between Cincinnati Children's Hospital Medical Center (CCHMC) and allows the Relying Site Institutional Review Boards (IRB) to cede IRB review to The Cincinnati Children's Hospital Medical Center Institutional Review Board (CCHMC IRB) for human subject research (Research) that will be conducted collaboratively by investigators at CCHMC and the Relying Site (Reliance Agreement).

Name of Institution Providing IRB Review:

Name of Institution	Cincinnati Children's Hospital Medical Center
Address	3333 Burnet Ave MLC 7040 Cincinnati, OH 45229
Institutional Official	Margaret Hostetter, MD
Designated Contact	Jeremy Corsmo, jeremy.corsmo@cchmc.org, 513-636-8039
Assurance (FWA)	FWA00002988
Registration (IRB)	00000231

Name of Institution Relying on CCHMC IRB:

Name of Institution	Xavier University
Address	3800 Victory Pkwy Cincinnati, OH 45231
Institutional Official	Steven Herbert
Designated Contact	Morrie Mullins, mullins@xavier.edu
Assurance (FWA)	00003152 (University of Cincinnati)
Registration (IRB)	00004019

This Agreement is limited to the following specific protocol(s) (Study):

Title of Study	Transgender Care Education
CCHMC IRB #	2017-5247
CCHMC Principal Investigator	Teresa A. Couch, MSN, MEd, RN-BC
Relying Site Principal Investigator	Susan Schmidt, RN, Ph.D., C.N.L., C.O.H.N.-S, C.N.S.

IRB Reliance Agreement
CCHMC IRB of Record

Cincinnati Children's Hospital Medical Center

Responsibilities

Cincinnati Children's Hospital Medical Center IRB/Institutional Responsibilities - The CCHMC IRB agrees that it will:

1)	Maintain an FWA with OHRP and maintain registration with both OHRP and the FDA. (Please note that CCHMC only applies the Common Rule and its subparts to federally funded research. Equal protections are provided to all non-federally funded research).
2)	Maintain IRB board membership that satisfies the requirements of 45 CFR 46, 21 CRF 56 and provide special expertise as needed from IRB members or consultants to adequately assess all aspects of the Study.
3)	Make available to the Relying Site upon request, the CCHMC IRB Standard Operating Procedures.
4)	Perform initial reviews, continuing reviews, reviews of submitted unanticipated problems that involve risks to subjects or others, amendments, reviews of DSMB reports, and reviews of any other documents submitted by the Principal Investigator of the Study.
5)	Maintain and make accessible to the Relying Site IRB the CCHMC IRB application, protocol reviews, letters to Principal Investigators, approvals and disapprovals, approved consents, minutes of the CCHMC IRB meetings relevant to the Study and the Relying Site.
6)	Provide an approved study-wide informed consent form. The form will indicate areas where the Relying Site may add language or otherwise customize the form for its own site (HIPPA, payment research related injury, local contacts). Any modifications will be subject to approval by the CCHMC IRB, which will then provide a final approved consent form to the Relying Site for use.
7)	CCHMC IRB will perform those determinations required by the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations (collectively, "HIPAA") with respect to the mechanisms for permitting the use and disclosure of Protected Health Information ("PHI") for the research protocol in this Agreement, including authorization and waivers of authorization for use and disclosure of PHI. Relying Sites will provide their own authorization but will ensure that its form of authorization explicitly permits PHI to be used and shared by and with CCHMC and all participating Study sites and their investigators as necessary for conducting, reviewing, and overseeing the Study as contemplated by the protocol and this Agreement.
8)	Review Relying Site management plans related to conflicts of interest reported by Relying Site investigators and others involved in the Study, as required under Relying Site policies. Determine if the management plan(s) is acceptable to the CCHMC IRB under CCHMC policies and practices. If the CCHMC IRB determines the management plan is not acceptable, the CCHMC IRB will promptly inform the Designated Site Contact and the Study will not be eligible for review under this Agreement.
9)	Notify the Designated Site Contact promptly if there is ever a suspension or restriction of the CCHMC IRB's authorization to review studies.
10)	Notify the Designated Site Contact promptly of any CCHMC IRB policy decisions or regulatory matters that might affect the institution's reliance on CCHMC IRB reviews or performance of the Study at the Relying Site.
11)	Notify the Designated Site Contact promptly in writing of injuries or unanticipated problems involving injury or risks to subjects or others in the Study discovered by the CCHMC IRB.
12)	Notify the Designated Site Contact promptly if the CCHMC IRB determines that serious or continuing non-compliance has occurred in the Study at the Relying Site, and the steps the CCHMC IRB deems necessary for the remediation of the non-compliance, including but not limited to, any suspension, disapproval or termination of the Study, or any sanctions or limitations imposed on researchers at the Relying Site. CCHMC may request that the Relying Site conduct its own investigation and report back to CCHMC or CCHMC may work cooperatively to conduct its own investigation.

IRB Reliance Agreement
CCHMC IRB of Record

Cincinnati Children's® Hospital Medical Center

	If the CCHMC IRB determines that it must report the findings of an investigation to OHRP, the FDA and/or other oversight entities, it will notify the Relying Site in advance. The CCHMC IRB will provide the involved Relying Site the opportunity to review and comment on the report before it is sent to OHRP, the FDA or others. Nothing in this Agreement shall prevent a Relying Site from making its own report to OHRP or from taking additional remediation steps at its own institution.
13)	Notify the Relying Site promptly if it decides to suspend, disapprove or terminate the Study as a consequence of receiving allegations of serious or continuing non-compliance or unanticipated events that have the potential to cause harm to research subjects.
14)	Notify the Relying Site about the need for a CCHMC Quality Review/Audit at the Relying Site. CCHMC may ask the Relying Site to conduct its own Quality Review/Audit and supply results to the CCHMC IRB or work cooperatively to conduct such a review.

Relying Site - Institutional Responsibilities: The Relying Site agrees that it will, at all times while this Agreement is in effect:

1)	Maintain a Federal Wide Assurance (FWA).
2)	Maintain a human subject's protection program, as required by the DHHS OHRP.
3)	Designate a Site Contact who is responsible for, and has Relying Site authority for, all communication regarding the Study and provide to the CCHMC IRB the name and contact information for that individual.
4)	Provide the Relying Site Principle Investigator and other research personnel involved in the Study a resource from the Relying Site IRB to address any questions or concerns they may have and refer them to the appropriate resource at the CCHMC IRB, as necessary.
5)	Ensure that the investigators and other personnel at the Relying Site who are involved in the Study are appropriately qualified and meet the Relying Site's standards for eligibility to conduct research. This includes, but is not limited to, having the required professional staff appointments, credentialing, insurance coverage, and background checks for their assigned role in the Study.
6)	Educate and train its investigators to perform research in compliance with human research protection regulations.
7)	Perform local analysis of any specific requirements of state or local laws, regulations, policies, standards (social or cultural) or other factors applicable to this Study, and include any relevant requirements or results of the analysis that would affect its conduct of the research as part of the information provided to CCHMC for consideration.
8)	Perform local review by other local ancillary committee reviews as applicable and required by its policies (such as nursing review, radiation safety, pharmacy and any others), and include any relevant requirements or results of the reviews that would affect its conduct of the research as part of the information provided CCHMC for consideration. It is the sole responsibility of the Relying Site to identify and interpret the requirements of its applicable state or local laws, regulations, policies, and ancillary review processes as are relevant to the Study and to communicate the requirements to the CCHMC IRB.
9)	Provide to CCHMC IRB the Relying Site's authorization language for HIPPA but ensure that it includes authorization that explicitly permits PHI to be used and shared by and with CCHMC and all participating Study sites and their investigators as necessary for conducting, reviewing, and overseeing the Study as contemplated by the protocol and this Agreement. Remain independently responsible for your own HIPAA compliance and obligations (for example, minimum necessary requirements, or accounting of disclosures of PHI made pursuant to a waiver of authorization) in connection with the research protocol covered under this Agreement other than the initial determinations regarding mechanisms for use and disclosure of PHI.
10)	For Studies funded in whole or in part by a non-federal entity (corporation, foundation, etc) ensure that the provisions of the grant or contract that funds the Study are consistent with the approved Study protocol and

IRB Reliance Agreement
CCHMC IRB of Record

Cincinnati Children's Hospital Medical Center

Authority

Once IRB review for a Study has been ceded to the CCHMC IRB pursuant to this Agreement, the research protocol will remain under the CCHMC IRB review for the life of the research protocol unless this Agreement is terminated as set forth below.

This Agreement will become effective as of the date of the last signature below and will remain in effect until the conclusion of the Study, defined as the time when all human subject activities at the Relying Site conclude. The Agreement may be terminated by: (i) either party without cause; such termination will be effective upon the CCHMC IRB receiving notification from the Relying Site IRB that the Relying Site IRB has assumed responsibility for the Study; (ii) by either party upon breach of the other party which in the sole discretion of the non-breaching party is capable of cure, if the breach has not been cured to the satisfaction of the non-breaching party within 30 days of notification of breach; or (iii) by either party immediately upon written notice upon breach of this Agreement which in the sole discretion of the non-breaching party is not capable of cure, including but not limited to any activity or reason that may place human subjects at risk.

All notices under this Agreement shall be sent to the addresses set forth above addressed to the appropriate Designated Site Contact.

This Agreement is governed under the laws of the State of Ohio.

By signing this Agreement, both institutions agree that the CCHMC IRB will serve as the IRB of record and agree to uphold their individual responsibilities as set forth in this document and as required by law and regulation. This Agreement is not effective until all institutional official and PI signatures have all been obtained. This document must be kept on file by both CCHMC and the Relying Site and provided to OHRP upon request.

SIGNATURES

_____ 8 Dec 2017

SIGNATURE OF CCHMC DESIGNATED OFFICIAL **DATE**

JEREMY CORSMO, SR DIRECTOR - ORCRA
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER

_____

SIGNATURE OF DESIGNATED OFFICIAL RELYING INSTITUTION **5 DECEMBER 2017 DATE**

MORRIE MULLINS, XAVIER UNIVERSITY IRB CHAIR
PRINTED NAME AND TITLE

Appendix H: Project Timeline

Milestone	Projected Completion Date
Proposal Defense	August 3, 2017
Submit to Cincinnati Children's Hospital IRB	November 2017
Submit reliance agreement to Xavier University IRB	December 2017
Develop Content Outline	October 1 to October 30, 2017
Review Content with Stakeholders	November 1, 2017
Develop Pre-test and Post-test Questions	November 1 to November 30, 2017
Build Online Learning Activity	January 2017 to January 2018
Invite participants	March 1, 2018
Close Learning Activity	March 30, 2018
Retrieve Data from Survey Monkey®	March, 2018
Review and Analyze Data	April 2018
Write Results	April 2018
Present Results and Defend Project	April 2018

Appendix I: Project Budget

Item	Projected Cost	Actual Cost	Revenue Source
Video Editing Software	$200.00	$0.00	DNP Candidate
Document Copying	$100.00	$100.00	DNP Candidate
Total	$300.00	$100.00	DNP Candidate

Appendix J: Pretest and Posttest Questions

Part 1: Demographic Information

1. Employee ID number (used for matching pretest and posttest responses only).
    a. Located on back of CCHMC name badge for all employees, CCHMC nursing faculty, and non-CCHMC nursing faculty.
2. Professional Role
    a. Nurse
    b. Patient Care Assistant
    c. Social Worker
    d. Mental Health Specialist
    e. Child Life Specialist
    f. Other

Part 2: Cultural Self-Assessment: Likert Scale 1 = strongly disagree to 5 = strongly agree

1. I understand the definitions of terminology commonly used to describe transgender and gender non-conforming people.
2. I am familiar with the unique developmental challenges facing transgender and gender non-conforming youth
3. I am familiar with the common health risks and disparities faced by transgender and gender non-conforming youth.
4. I know what resources and organizations provide support for transgender and gender non-conforming youth and their families.
5. I know what resources clinicians can access to learn more about caring for transgender youth and their families.

Part 3: Cultural Knowledge Assessment: Transgender Terminology: Match the Term with the Accepted Definition

1. Terminology:
    a. Misgender: to refer to a person using a word, especially a pronoun or form of address, that does not correctly reflect the gender with which a person identifies.
    b. Transgender: A term used to describe a person whose gender identity differs from their sex
    c. Sex assigned at birth/biological sex: The process of assigning gender based on the appearance of the external genitalia.
    d. Gender Expression: The way in which a person chooses to express their internal self to others.
    e. Non-Binary: gender identity that does not fit squarely in a male or female category.
    f. Attraction: the feelings associated with seeking out others for emotional support and/or intimate relationships.
    g. Gender Identity: a person's internal sense of self; their identity as male, female or something else.
    h. Gender non-conforming: a person whose gender expression or gender role differs from typical societal expectations

i. Transitioning: Taking steps social or physically to feel more aligned with one's gender identity.
j. Cisgender: a person whose sex and gender identity match.
k. Gender dysphoria: intense discomfort a transgender person may feel about physical attributes or the way they are gendered by other people.

Part 4: Cultural Knowledge Assessment: Health Disparities for Transgender and Gender Non-Conforming Patients. Multiple Choice or True/False Response

1. Transgender and gender non-conforming children and adolescents who perceive their families as supportive of their transgender identity are significantly less likely to have positive mental health outcomes. **True**
2. Transgender and gender non-conforming youth whose families are neutral about their feelings regarding the transgender status have the highest rates of mental illness, anxiety, depression and suicidal ideation. **False**
3. Sex and Gender have the same meaning. **False**
4. Transgender youth are _____ times more at risk for suicidal ideation and suicide attempts. **Multiple choice-correct answer a**
    a. 41%
    b. 83%
    c. 12%
    d. 26%
5. An adolescent who identifies as transgender is likely going through a phase of adolescent rebellion. **False**
6. When compared to their cisgender peers, transgender and gender non-conforming youth are more likely to be homeless. **True**
7. Which of the following health disparities are faced by transgender and gender non-conforming youth and their families **Choose all that apply. Correct answer: all options.**
    a. Increased risk of eating disorders
    b. Increased risk of substance use/abuse
    c. Lack of knowledgeable physicians
    d. Insensitivity in interactions with health care professionals
    e. Lack of insurance coverage for treatment
    f. Discrimination in employment
    g. Bullying in school and social circles
8. In the State of Ohio there are no state level laws protecting against discrimination in housing, employment, and public accommodations based on gender identity. **True**
9. In the State of Ohio a person who identifies as transgender can change the gender designation on their birth certificate. **False**
10. CCHMC has a policy allowing for the use of a preferred name. **True**
11. When, during childhood development, does gender identity form?
    a. When a child starts school and begins to identify with peers outside the home.
    b. At the onset of puberty.
    c. In early childhood, by the age of 2 or 3.
    d. At the age of 18.

Appendix K: Program Evaluation

1. Employee ID number (used only to match evaluation responses with pretest and posttest responses).
2. The following questions are answered on a 4-Point Likert Scale from 4-agree, 3-somewhat agree, 2-no opinion, 1- disagree
    a. Teresa Couch, MSN, MEd, RN-BC is an effective presenter
    b. How effectively were program objectives met?
        i. Define common terminology used to describe transgender people.
        ii. Describe developmental challenges for transgender youth and their families.
        iii. Identify the unique health concerns facing transgender youth.
        iv. List Strategies for providing culturally sensitive care to transgender youth.
    c. Overall, I was satisfied with the quality of this educational program
    d. I gained new knowledge and skill from this program.
    e. This program will improve patient outcomes
    f. I will be able to apply the knowledge and skills learned in this program to my job.
    g. This program was a worthwhile investment in my professional development.
3. Additional Comments:
4. Identify two concepts that you learned from this program that you can apply to your practice.

Appendix L: Pre-Test and Post-Test Scores of Individual Responses to Cultural Assessment and Cultural Knowledge Assessment

		Cultural Self-Assessment			Cultural Knowledge Assessment		
Participant	Professional Discipline	Pre-test Rating	Post-test Rating	% change	Pre-test Score	Post-test Sore	% change
1	MHS	10	23	130%	9	24	167%
2	MHS	18	20	11%	11	24	118%
3	Child Life Specialist	9	20	122%	19	23	21%
4	Nurse	11	24	118%	13	29	123%
5	Nurse	14	23	64%	8	23	188%
6	Nurse	12	24	100%	10	22	120%
7	MHS	14	23	64%	13	24	85%
8	PCA	6	22	267%	21	27	29%
9	Nurse	12	25	108%	21	29	38%
10	social worker	21	25	19%	21	29	38%
11	MHS	17	25	47%	14	27	93%
12	Nurse	13	19	46%	20	27	35%
13	Nurse	15	23	53%	20	29	45%
14	Child Life Specialist	14	23	64%	20	28	40%
15	Child Life Specialist	15	17	13%	24	28	17%
16	PCA	16	20	25%	26	27	4%
17	Nurse	18	23	28%	23	27	17%
18	MHS	13	22	69%	17	27	59%
19	MHS	18	22	22%	18	28	56%
20	Nurse	18	23	28%	23	29	26%
21	PCA	19	20	5%	28	29	4%
22	Nurse	18	23	28%	24	26	8%
23	Nurse	17	23	35%	24	28	17%
24	Nurse	17	20	18%	22	22	0%
25	Nurse	16	15	-6%	17	22	29%
26	Nurse	19	23	21%	21	24	14%

For the cultural self-assessment, participants were asked to rate themselves on a 5-point Likert scale (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree) in relation to the five course objectives. The sum of the ratings of the five items are displayed for the pretest and posttest, along with the percent of change between the two measures.

The cultural knowledge assessment consisted of a 22 questions. Twenty one of the questions had only one correct answer (1 point for a correct answer) and 1 question required participants to choose multiple options from a determined list (maximum score 8). Maximum score for the knowledge assessment was 29.

Appendix M: Program Evaluation Data: Concepts to Integrate into Practice

Participant	Comment 1	Comment 2
1	No Answer	No Answer
2	Using preferred name	Understanding Bias
3	Overall knowledge of our patients	How to better serve families
4	Use preferred name	Use correct pronouns
5	Use the pronouns the patient chooses	Add preferred name in Epic
6	Differences between identity, expression, sex, attraction	Adding preferred name in Epic
7	I did not know how to add the "preferred name" to Epic. We would just include it in report	I will add the preferred name to epic now
8	Call admitting to add name to epic	Keep my opinions and beliefs to myself
9	No answer	No answer
10	How to add name to Epic	How to add name to PPOC (Patient Plan of Care)
11	I feel more confident in asking my transgender patients what name and pronoun they want to use. I understand better how important it is to them.	I also know where to go to get more information.
12	Ohio has no laws protecting discrimination against transgender	Identity is established when young
13	I know where I can send the families for additional help	No answer

14	Don’t assume and don’t judge	Make a difference --speak up--be kind
15	The laws in the State of Ohio	Gender and sex are different concepts.
16	How important preferred name is to the trans person	The laws in Ohio
17	Ask the patient the name they want us to use	Ask the patient what pronouns they want us to use
18	Call admitting to add the preferred name	Add the preferred name to PPOC
19	Ideas on how to add chosen name to Epic/Patient Plan of Care (PPOC)	No Answer
20	Better communication with trans kids	Where I can find their "new" name and call admitting department to add their "new" name to Epic
21	use the correct name and pronoun	Don’t judge others
22	Just ask for pronouns to use	Don't assume
23	Competent care	Caring for transgender teens
24	Emphasis on respect for everyone, reminding coworkers to do the same	That gender identity can begin when a child is a toddler
25	Why it is important to use the preferred name.	No answer

Appendix N: Learner Satisfaction Data

	Strongly Agree	Agree	No Opinion	Strongly Disagree
Teresa Couch, MSN, MEd, RN-BC is an effective presenter.	80%	8%	12%	0%
Define common terminology used to describe transgender people.	84%	12%	0%	4%
Describe developmental challenges for transgender youth and their families.	64%	36%	0%	0%
Identify the unique health concerns facing transgender youth.	71%	25%	4%	0%
List strategies for providing culturally competent care to transgender youth.	83%	17%	0%	0%
Overall I was satisfied with the quality of this educational program.	92%	8%	0%	0%
I gained new knowledge and skills from this program.	83%	17%	0%	0%
This program will improve patient outcomes.	88%	13%	0%	0%
I will be able to apply the knowledge and skills learned in this program to my job.	79%	21%	0%	0%
This program was a worthwhile investment in my professional development	83%	17%	0%	0%

Appendix O: Program Evaluation Data: Additional Comments

1	Did not answer.
2	I learned a lot. I would have liked to been able to debrief with others after the video. I still have questions and want to seek out more answers.
3	I think that this would be a great "ice breaker" for many groups and departments. It would be great to follow this up with some additional trainings or sessions for those that are interested.
4	Did not answer.
5	Did not answer. Video was very long...suggest breaking it up in to shorter segments...no longer than 30 minutes. It was hard to watch while I was working.
6	Video was too long.
7	Video had a lot of good information, but it was too long to watch at work.
8	Did not answer.
9	Overall great. A little long though...you could cut some parts out. That part with the doctor from Boston could have been cut. But overall an informative program.
10	90 minutes is too long. Would be better if the video were shorter.
11	This is a very important topic. I've had very little exposure to transgender teens. The one time I did I felt really unsure about how to talk to them. I didn't want to offend them but I wasn't sure how to ask questions I feel a little better prepared now. I would like more information though.

12	Did not answer.
13	Did not answer.
14	Psych needs to visit the trans clinic and vice versa. My adult child is trans and came out to me this year at the age of 21. I have been absorbing info like a sponge and still need more info. They will transitioning (as well as me) and will be having top surgery soon. All employees at CCHMC would benefit from this module. All humans would benefit from it. Educate!!
15	Did not answer.
16	The video is too long. However, I think that the module is very educational. It helped me to better understand about transgender kids. I have personally not had very much exposure to them in my work or personal life.
17	The video said that we should be aware of our biases. I don't think I have any, but now I wonder if I might be unconsciously bringing those into work. I wonder if the patient sees things that I say as offensive even if I don't mean to be.
18	I have felt uncomfortable working with trans kids or parents. I really have not understood it. It doesn't make much sense to me. The module gave me some information, but I still don't think I really understand it. I do feel like I want to learn more.
19	I've been working with trans kids in the psych unit. I think this will help people who have little experience working with this group of patients.
20	This was very informative. It helped me to understand how I can help transgender kids feel more comfortable in the hospital.
21	Did not answer.
22	Well done.

23	Did not answer
24	Video should be shorter.
25	I still have questions. I would like to have the opportunity to talk to someone.