IMPROVING PUBLIC HEALTH CLINICIANS' BELIEFS AND BEHAVIORS WITH LGBT INDIVIDUALS

By

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ABSTRACT

COLETTE TOWNSEND-CHAMBERS. Improving Public Health Clinicians' Beliefs and Behaviors with LGBT Individuals (Under the direction of DR. KELLY POWERS).

Identified gaps in the education of healthcare clinicians contribute to non-affirming beliefs and marginalizing behaviors towards LGBT individuals. This can result in poorer health outcomes for LGBT persons. The purpose of this project was to evaluate the effectiveness of a targeted educational intervention in improving public health clinicians' affirming beliefs and behaviors with LGBT patients. A one group, pretest-posttest, quasi-experimental design was used. The sample was 69 public health clinicians from local public health clinics that are piloting a Pre-exposure Prophylaxis (PrEP®) HIV medication. An educational training was implemented which focused on challenges for the LGBT client and current LGBT sensitive terminology. A standardized patient simulation video recording of a transgender patient encounter was shown to demonstrate best practices and a structured debriefing followed. The Gay Affirmative Practice (GAP) scale was administered at three timepoints (pretest, immediate posttest, and 2-month posttest). Friedman's Test and Wilcoxon Signed Rank tests were performed. There was a statistically significant immediate improvement in clinicians' affirmative beliefs ($p < 0.001$); however, beliefs scores returned to baseline two months later. The improvement in self-reported affirming behaviors from pretest to two-month posttest was statistically significant ($p = 0.003$). Participants reported a high level of satisfaction with the education and written comments revealed participants felt this education should be offered more frequently. Providing LGBT-specific healthcare training may improve clinicians' affirmative beliefs and behaviors, which can significantly improve the patient-provider

relationship. The use of experiential learning via simulation and ongoing education are recommended.

DEDICATION

To my dear mother, Pastor Mary L. Townsend, may she rest in heavenly peace. She taught me to be strong yet compassionate, to always give more than I receive, and to maintain my faith in God and humanity.

To my father, Wardell Townsend, Sr., the driving force of the family!

To my children, Shawn and Carina, who have sacrificed quality family time, and given me the time and space to pursue my dreams. I love you more than you know!

To my siblings, and all my extended family and friends, far and near for their undying love and support.

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ABBREVIATIONS

AACN	American Association of Colleges of Nursing
AHEC	Area Health Education Center
CDC	Centers for Disease Control
CINAHL	Cumulative Index to Nursing and Allied Health Literature
DHHS	Department of Health and Human Services
DNP	Doctor of Nursing Practice
EBP	Evidence- Based Practice
FDA	Food and Drug Administration
GAP	Gay Affirmative Practice
HIV	Human Immunodeficiency Virus
IOM	Institute of Medicine
INACSL	International Association of Clinical Simulation and Learning
LRC	Learning Resource Center
LGBT	Lesbian, Bisexual, Gay, Transgender
MCPH	Mecklenburg County Public Health
NLN	National League for Nursing
PICO	Population, Intervention, Comparison, Outcome
PCP	Primary Care Practitioner
PREP	Pre-Exposure Prophylaxis
SPSS	Statistical Package for the Social Sciences

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CHAPTER 1: INTRODUCTION

The percentage of adults in the United States (US) who identify as lesbian, gay, bisexual, and transgender (LGBT) has risen from 3.5% in 2012 to 4.5% in 2017, which is roughly 11,343,000 individuals (Gallup, 2019). While this appears to be a monumental number of individuals, it is hard to determine an accurate number due to underreporting (US Department of Health and Human Services [DHHS], n.d.). In North Carolina (NC), about 4.0%, or roughly 319,000 individuals, identify as LGBT (Williams Institute, 2019). Of sexually diverse people that utilize healthcare services, many report they have received biased or inadequate care (Institute of Medicine [IOM], 2011), indicating a need to improve cultural competence among healthcare clinicians. Further, a review of literature from the past decade showed an evident gap in curricula focused on cultivating healthcare clinicians' LGBT cultural competence (Bonvincini, 2017).

It is not known if the difficulties LGBT patients face in accessing and receiving culturally competent care is primarily due to a societal homophobic stigmatization, a lack of clinicians' knowledge of their healthcare needs, or a combination of both. One recent study found that heterosexual healthcare providers favored heterosexual patients over their lesbian and gay patients (Sabin, Riskind & Nosek, 2015). Other literature suggests that providers are uncomfortable caring for LGBT patients, and patients are reluctant to disclose their sexual orientation based on providers' negative attitudes (Mitchell, Lee, Green & Sykes, 2016). Healthcare should not be a privilege but a right, and all individuals are entitled to safe and effective care. Therefore, identifying effective interventions to improve clinicians' ability to provide culturally competent care to LGBT

individuals is paramount, and there is a specific need for interventions to improve healthcare clinicians' beliefs and behaviors.

1.1 Background and Significance

The IOM (2011) identified two major challenges for LGBT patients: fear of discrimination and difficulty in finding providers who have specific LGBT knowledge to provide quality healthcare (p.4). Whitehead, Shaver, and Stephenson (2015) found that LGBT individuals reported feeling stigma at a level three times higher than their cisgender peers when utilizing healthcare. Further, the knowledge deficit of how to effectively care for LGBT patients is evident in research. Seventy percent of 190 nursing students were able to correctly answer only two questions in a 25-item survey focused on knowledge for LGBT healthcare. Survey results showed students were only able to identify correctly that lesbian women require pap smears at the same intervals as their heterosexual peers, and that gender reassignment is difficult to obtain and insurances do not typically pay for this (Cornelius & Carrick, 2015). Further, it has been found that varied and minimal education is provided to undergraduate students regarding the specific healthcare needs of the LGBT client (McCann & Brown, 2018). Other research demonstrates that this knowledge deficit continues after graduating and entering practice. Smith and Turrell (2017) found that practicing providers expressed discomfort in caring for LGBT individuals due to unfamiliarity with LGBT sexual health needs and the appropriate terms for the patients' identified gender. These findings indicate two barriers to safe and effective healthcare for LGBT patients: perceived stigma and knowledge deficit. Additionally, mental health clinicians (social workers, psychologists and psychotherapists) who care for LGBT patients identified a lack of mandatory or formal

LGBT training as a major challenge in providing effective care to LGBT patients (Rutherford, McIntyre, Daley & Ross, 2012). While learning the intricacies of their discipline is necessary to become proficient in their respective fields, the American Association of Colleges of Nursing (AACN) stresses that one should have the desire to be culturally competent in order to affect change in the current climate of social injustices and healthcare disparities (AACN, 2011). Thus, a third barrier to safe and effective healthcare is the lack of, or insufficient, education on caring for LGBT individuals.

The barriers to safe and effective healthcare faced by LGBT individuals can result in complex and poor outcomes for these individuals. Specifically, LGBT individuals are less likely to receive preventative cancer screenings and have higher rates of Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infections (STIs) (US DHHS, 2013). Additional examples of negative outcomes include LGBT adolescents having higher rates of homelessness and LGBT women having higher rates of obesity. Improvement of these rates and reduction of disparities in these individuals is a major goal of Healthy People 2020 (US DHHS, n.d.). To improve health outcomes for LGBT individuals, there is a need to improve healthcare clinicians' beliefs and behaviors. Providing evidence-based education to clinicians is an intervention that aims to address the noted barriers to safe and effective healthcare for LGBT individuals.

1.2 Problem Identification

Evidence indicates that LGBT individuals are an at-risk population due to marginalization, enacted stigma, and clinician knowledge deficits. The IOM and the National League for Nursing (NLN) have published living documents that support bridging the gap of health disparities for individuals who are having difficulties in

accessing healthcare due to their sexual orientation or identity (IOM, 2011; NLN, 2016), and it is vital to address clinicians' cultural competency (Sare & Ogilvie, 2010). Providing education on caring for LGBT individuals is paramount; however, such education is not currently required for public health clinicians working in clinics in the Charlotte, NC area. Specifically, it is important to provide this education to clinicians in the Mecklenburg County Public Health (MCPH) clinics that are piloting a Pre-Exposure Prophylactic (PrEP®) HIV medication so that LGBT patients who participate in the pilot and/or receive care at these clinics receive culturally competent care. Truvada® by Gilead Sciences was one of the first PrEP® medications approved by the US Food and Drug Administration (FDA) in 2012 for use in reducing the risk of sexually acquired HIV in seronegative individuals. Used effectively and consistently, PrEP® has been shown to reduce HIV infections by up to 92% (Centers for Disease Control [CDC], 2019). Clinicians at MCPH clinics are in a unique position to help increase the uptake of this medication in patients with high-risk behaviors.

1.3 Clinical Question

The PICO question that guided this evidence-based practice (EBP) project was: In public health clinicians (P), does a targeted educational intervention (I), improve beliefs and behaviors about caring for LGBT patients (O) from pretest to immediate posttest and at two months post-intervention (C)?

1.4 Project Objectives

The specific objectives of this EBP project were to:

(1) Create a targeted educational intervention on caring for LGBT individuals that includes a video simulation to demonstrate best practices in care.

(2) Implement the targeted educational intervention with public health clinicians at MCPH HIV PrEP® pilot clinics.

(3) Evaluate if the targeted educational intervention improves clinicians' beliefs and behaviors with LGBT individuals, with variables measured at three time points (pretest, immediate posttest, and two-month posttest).

Chapter 2: LITERATURE REVIEW

This literature review was conducted electronically by searching the Cumulative Index to Nursing & Allied Health Literature (CINAHL), Cochrane Library, PubMed, Medline and Ebscohost databases. The keywords inputted, using various combinations, were lesbian, gay, bisexual, transgender, LGBT, cultural competence, disparity, beliefs, behaviors, knowledge, healthcare providers, healthcare personnel, and clinicians. Over 50 peer-reviewed articles were located with publication dates ranging from 2006 to 2019, with the majority being descriptive and qualitative research at evidence level V or VI according to Stillwell, Fineout-Overholt, Melnyk, and Williamson (2010). There was one meta-analysis and two systematic reviews at level I which were later discarded for lack of specific relevancy. The articles chosen for inclusion in this literature review have the following predominant themes: healthcare clinicians' beliefs affect their attitudes and behaviors towards LGBT patients, clinicians' lack of LGBT-specific education affects affirmative practice and cultural competency, and potential interventions to improve clinician behaviors to be more affirming.

2.1 Clinicians' Beliefs and Behaviors towards LGBT Patients

Research indicates that assessing clinicians' beliefs and behaviors is paramount for determining readiness for learning LGBT-specific skills and behaviors. Of the literature reviewed, five articles used the Gay Affirmative Practice (GAP) scale in some variation. The GAP was used in four individual studies and was cited at least twice in an integrative review (Chapman et. al., 2011; Crisp, 2006; Lim & Hsu, 2016; Marucca et. al., 2018; Sabin, Riskind & Nosek, 2015). In these articles, the populations of study varied and included nursing students (Lim & Hsu, 2016; Marucca et. al., 2018), nursing

and medical students caring for children of LGBT parents (Chapman et. al., 2011), psychologists and social workers (Crisp, 2006), and nurses, medical doctors, and mental health clinicians (Sabin et. al., 2015). The sample sizes ranged from 48 to 11,248 participants from throughout the US (Chapman.et al., 2011; Crisp, 2006; Gendron, 2012; Lim & Hsu, 2016; Marucca et al., 2018; Sabin et al., 2015).

Findings showed that clinicians' religious beliefs contributed to negative and homophobic attitudes towards the LGBT population (Chapman et.al., 2011; Crisp, 2006; Lim & Hsu, 2016; Prairie et. al., 2018). It was also found that 50% of 42 surveyed physicians stated they would invoke physician autonomy based on religious/moral beliefs, choosing to refuse a patient they knew was LGBT despite their duty to provide care (Prairie et.al., 2018). Although education resulted in trainee reports of feeling more knowledgeable and comfortable with LGBT patients, clinicians' deep-seated homophobic beliefs remained unchanged (Gendron et.al., 2012), with some even believing that LGBT persons are unfit to parent or adopt children (Chapman et al., 2011). This literature demonstrates a need to improve clinicians' beliefs and behaviors with LGBT individuals.

2.2 Lack of LGBT Specific Education and Potential Interventions

Results also showed that limited LGBT-related knowledge and lack of preparation among students and faculty produced a significant self-awareness of bias during debriefing following simulation education. Further, the ability to implement affirming behaviors post-simulation significantly improved with median GAP scores increasing from 114 to 125 (Marucca et. al., 2018). It was also found that adequate knowledge of LGBT healthcare needs was lacking due to baccalaureate nursing faculty only teaching 2.12 hours of LGBT-focused health topics throughout pre-licensure

education (Marucca et.al., 2018). Similarly, other research found that the majority of nurse practitioner participants believed that the healthcare needs of LGBT patients were the same as non-LGBT patients. These nurse practitioner participants reported that because they had minimal LGBT training in school, they had to seek information elsewhere, with many seeking specific LGBT education from their patients, by searching online, or via referrals to colleagues with expertise in mental health or other LGBT specific issues (Lim et. al., 2015; Manzer et. al., 2018).

With regards to HIV in the LGBT population, one study utilized a tool to measure HIV stigma and education and found that 35% of 651 clinicians felt people living with HIV get infected because they engage in irresponsible behaviors and that if they themselves were infected with HIV they would be ashamed (Stringer et. al., 2016). Of those respondents, 73% didn't know if their facility provided access to PrEP® medication (Stringer et. al., 2016); while another study found that both LGBT specialists and generalist clinicians working in clinic settings voiced uncertainty in prescribing PrEP® due to concerns about substance abuse, poor medication adherence, and the high cost of the medication (Krakower et. al., 2017). However, in this study, the LGBT specialists had higher PrEP® prescription rates than the generalist clinicians, with the LGBT specialists citing the successful data established on PrEP® (Krakower et. al., 2017). These findings show that LGBT-specific education is lacking, with a need to focus on education for clinicians who care for patients that would benefit from PrEP® medication.

While there have been limited studies on the use of simulation to address this educational gap, nursing students have expressed feeling more comfortable conversing

and integrating newly learned affirming pronouns when caring for a high-fidelity manikin that simulated a transgender patient (Marucca et. al., 2018). Nursing students (N=230) in another study rated their confidence an average of 4.65 on a 5-point scale for assessing sex practices and using open and inclusive language after a simulation with a 15-year-old gay standardized patient (Hickerson, Hawkins & Hoyt-Brennan, 2018). It has been suggested that incorporating inclusive simulated learning experiences is vital to improve cultural humility and competency among nursing students, and to enhance their communication and confidence when interacting with diverse patients. Therefore, it was recommended to add "cultural humility" as an International Nursing Association of Clinical Simulation in Nursing (INACSL) Standard of Best Practice (Foronda & MacWilliams, 2015, p. 290; Foronda, Baptiste, Pfaff, Velez, Reinholdt, Sanchez, & Hudson, 2018). Recently, an international study on racial diversity in simulation identified the importance of including diversity aspects within simulations, with one respondent stating, "the simulation world needs to change and embrace diversity" (Foronda, Prather, Baptiste, Townsend-Chambers, Mays & Graham, 2019, p.3). These findings indicate that including a standardized simulated patient video in LGBT education for clinicians may help to improve beliefs and behaviors. Use of a standardized simulated patient video format, in contrast to conducting simulations with a standardized patient on site, presents an opportunity to standardize the education in a less costly and time-consuming manner. This is an important consideration because use of the video format has the potential to promote replication of the education, thereby improving the ability to reach more clinicians at more clinic sites. This may lead to a more widespread improvement in clinicians' beliefs and behaviors with LGBT individuals.

2.3 Conceptual and Theoretical Frameworks

The conceptual framework that guided this EBP project was "The Process of Cultural Competence in the Delivery of Healthcare Services," by Josepha Campinha-Bacote (2002). It offers five major constructs as a framework: cultural awareness, cultural knowledge, cultural skill, cultural desire, and cultural encounters. According to Campinha-Bacote (2002), "there is a direct relationship between the level of competence of health care providers and their ability to provide culturally responsive health care services" (p. 181). Clinicians can enter into the process of becoming culturally competent at any of these interdependent constructs and build upon them, as needed, when the opportunity arises (Campinha-Bacote, 2002).

Campinha-Bacote's framework states that one must first be culturally aware, or recognize their biases about other individuals. Then cultural knowledge allows one to learn about other cultures' beliefs or values about healthcare. Next, the skill of assessing an individual's cultural history is equally important as gathering physical data, as this can influence the development of patients' treatment plans and outcomes. Cultural encounters occur when direct interactions with another culture has an impact (positive or negative) on the clinician's current beliefs about a culture. Lastly, cultural desire is what drives the clinician to care enough about the patient to purposefully and empathetically engage or interact with them. As clinicians build upon one of the constructs, the others can also improve (Campinha-Bacote, 2002). Therefore, if an intervention promotes cultural knowledge and awareness, this can also improve clinicians' desires, skills, and encounters. Campinha-Bacote's framework supports the overall objective of this EBP

project: to provide education on caring for LGBT individuals to improve clinicians' beliefs and behaviors with this population of patients.

In addition, Lewin's Change Theory was relevant to the design of this EBP project's intervention and data collection plan. Lewin describes three main stages of change: unfreezing, change, and refreezing (Sare & Ogilvie, 2010). Lewin's theory of changing social conduct states that a successful change includes "unfreezing (if necessary) the present level L^1, moving to the new level L^2, and freezing group life on the new level" (Lewin, 1947, p.35). In this project's design, unfreezing occurs during the pretest where participants identify their baseline beliefs and behaviors towards LGBT individuals, with this stage continuing during the targeted educational intervention. Next, there is the change, or "moving to a new level" (Lewin, 1947, p.35) phase. The targeted educational intervention sought to unfreeze current beliefs and behaviors and then focused on promoting change as the project participants watched the standardized patient video and received training on current best practices in providing healthcare for the LGBT population. This change phase continued as participants applied the education in their clinical practice when caring for LGBT individuals. Lastly, the final phase of change, the stage of stabilization or freezing on the new level, was evaluated in this project when participants completed the two-month posttest to assess sustained changes in belief and changes in behaviors after two months of caring for patients' post-intervention.

Chapter 3: METHODOLOGY

3.1 Project Purpose

This EBP project sought to improve public health clinicians' beliefs and behaviors with LGBT individuals in order to reduce potential disparity in care and improve patient health outcomes. Specifically, the purpose of this project was to (1) create a targeted educational intervention on caring for LGBT individuals, (2) implement the education with public health clinicians, defined as all staff who directly interact with patients, at MCPH HIV PrEP® pilot clinics, and (3) determine if the intervention improved clinicians' beliefs and behaviors with LGBT individuals.

3.2 Project Design

A one-group, quasi-experimental approach was used to evaluate the effectiveness of the project's educational intervention, which was an interactive PowerPoint curriculum and a standardized patient simulation video to depict best practices. The intervention was repeated at each of the seven clinic sites. A pretest-posttest time series design that used double posttests (immediate posttest and posttest 2 months after the intervention) was utilized. This design was deemed important to evaluate for changes in beliefs immediately after the educational intervention, as well as sustained changes in beliefs and changes in behaviors with LGBT individuals. In addition, measuring over time can help identify the intervention's maturation or attenuation (Kleinpell, 2013) to inform future educational efforts.

3.3 Setting

The project setting was seven MCPH clinics in Charlotte, NC where the pretest, targeted educational intervention, and immediate posttest occurred. Additionally, an online data collection platform was used for the two-month posttest. The seven clinics were chosen because they are piloting a PrEP® HIV medication, as Mecklenburg County ranked second for new HIV diagnoses in NC between 2014-2016 (Mecknc.gov, 2019). As part of the PrEP® pilot, diversity training was required for all clinic staff. The local Area Health Education Center (AHEC) provided the required "Diversity 101" training to all clinicians at the participating clinics in the autumn of 2018 as part of the MCPH's PrEP® pilot project. The "Diversity 101" training addressed basic diversity terminology and focused on differences in ethnicities and cultures, but it did not specifically focus on education about caring for LGBT individuals. Due to PrEP® being recommended to high-risk individuals, which includes LGBT individuals, it is vital to also provide education on caring for this population. Therefore, this project specifically focused on LGBT cultural competence for the clinicians working at the seven MCPH PrEP® clinics.

Seven Mecklenburg County free and low-cost public health clinics participated in the project. All seven clinics are located in Charlotte, NC, and all are participating in the PrEP® pilot program. The educational intervention took place in a conference room, break room, or waiting room of each clinic site. Clinic patients were not present in these areas during the intervention. Only one clinic had a high definition television screen which was compatible to connecting the laptop to project the PowerPoint images. At the other clinics, the project lead provided a mini projector and laptop to project the educational intervention to a nearby blank wall. On occasion, this involved removing

some institutional signage or clocks that were in the visual line of the participants and replacing them after the intervention. Dates and times for implementing the educational intervention at each clinic site were coordinated with each individual clinic site manager. The project implementation was completed within one month.

3.4 Sample and Recruitment

The sample consisted of clinicians who provide direct patient care and/or directly interact with patients within the seven PrEP® clinics. For this project the term clinician included, but was not is not limited to, certified nurse's aides, medical assistant technicians, billing and office staff, licensed practical nurses, registered nurses, nurse practitioners, clinical social workers, psychologists, pharmacists, pharmacy technicians, physicians' assistants, and physicians. To participate, participants had to be a clinician per the definition above and had to be employed at one of the seven MCPH PrEP® clinic sites. They also were required to be able to read, write and comprehend the English language. Anyone not meeting the inclusion criteria was excluded.

Convenience sampling was utilized and there were 69 participants in total between the seven MCPH PrEP® clinic sites. All clinicians who met the inclusion criteria at each of the clinic sites were invited to participate. To aid in recruitment, the project lead presented the project to all clinic managers in a general manager meeting and distributed informational flyers to share at their clinics. Additional measures to promote participation included a chance to win one of two gift cards valued at $15.00 each via a random drawing held at each of the clinic sites. Clinicians who completed the pretest and immediate posttest were eligible to win a gift card on site, as well as another opportunity

to submit their email address for a chance to win a gift card after completing the two-month posttest via random drawing.

3.5 Intervention

The intervention consisted of an interactive PowerPoint curriculum that included a standardized patient simulation video to depict best practices in caring for LGBT individuals. The PowerPoint slides were developed by the project lead utilizing current, peer-reviewed literature about LGBT statistics along with content from "Caring for LGBTQ Patients" by Klein and Nakhai (2016). The curriculum content developed by Klein and Nakhai (2016) addressed the following: providing culturally competent care, acquiring skills to build empathy, identifying barriers to care and methods to decrease or eliminate these barriers, using LGBT population-specific language to improve the therapeutic patient-clinician relationship, and becoming skilled in taking an inclusive and non-judgmental history. This curriculum was presented at the Oregon Academy of Family Practice state meeting in April 2015, as well as The Forum for Behavioral Science in Family Medicine, which is a national conference of family medicine educators. Following these presentations, positive ratings were noted among medical resident, faculty, and other conference attendees (Klein & Nakhai 2016). Prior to implementation of this current project, parts of the educational content on the PowerPoint slides and the standardized simulation video were presented at a local LGBT conference, and the presentation received favorable evaluation scores of 4.64 on a Likert scale of 1= strongly disagree to 5= strongly agree. These 50 respondents identified as allied healthcare providers and educators who cared for or treated LGBT clients in the Charlotte Mecklenburg area (Townsend-Chambers, 2018). Qualitative comments from this event

were reviewed and content amended based on attendee comments to increase content matter validity.

After the PowerPoint slides were presented and reviewed, participants viewed a pre-recorded video of a standardized patient simulation that depicted a healthcare clinician's incorrect interaction with an LGBT patient (i.e. clinician did not display cultural competence or empathy for the individual), followed by a separate video demonstrating best practices for interacting with LGBT patients. The simulation was digitally video recorded in 2019 on the campus of the University of North Carolina at Charlotte (UNCC), in the Learning Resource Center (LRC). An LRC patient examination room that realistically replicates an examination room in actual healthcare clinics was used as the setting for the recording. Props such as a blood pressure sphygmomanometer and stethoscope were added to further promote realism. Three actors were filmed in each of the videos. A graduate student served to act as the healthcare clinician who first interacted with the patient. In the next scene, the standardized patient actor appeared. The actor was financially compensated to portray a male to female (M-to-F) transgendered patient, with a history of having experienced negative healthcare interactions. Finally, the project lead acted in the videos to portray the physician who then begins to provide care to the patient. The videos were scripted by the project lead with input from a local transgendered M-to-F community activist who shared a personal story similar to the interaction portrayed. Scripts were then reviewed by the project chair (nursing faculty) and a senior instructional technologist from UNCC for validation. The videos were professionally filmed and edited by UNCC's Audiovisual Integration and Support for Learning Environments (AISLE) team. Each video was 2.30 minutes long.

Immediately after viewing the simulation videos, participants were debriefed by the project lead in accordance with simulation standards. Debriefing is Standard VI of the INACSL Standards of Best Practice: Simulation^{SM}. This simulation standard states that a skilled facilitator, such as the project lead who is a Certified Healthcare Simulation Educator (CHSE®), must lead the debriefing to assist participants to reflect on the scenario and explore thoughts and emotions with the goal of creating new knowledge (Decker et al., 2013). Debriefing is considered an integral part of simulation as research has shown this component is a key factor in promoting learner self-confidence and transference of knowledge, skills, and attitudes (Decker et al., 2013).

Participating clinicians at each of the seven MCPH PrEP® clinic sites received the same education and it was implemented by the project lead at all of the sites. The educational intervention, including the PowerPoint, simulation videos, and debriefing, was approximately 45 minutes long. Permission and cooperation to integrate the education into the clinicians' work day schedule was obtained by the clinic site managers, and a letter of support was obtained from the MCPH Department's Director. See Appendix A for the Director's letter of project support.

3.6 Measurement Tools

Participants completed a demographic questionnaire as part of the pretest. The demographic questionnaire, created by the project lead, collected information about participants' age, gender, sexual orientation, race/ethnicity, job/role in the clinic, years of experience working in public health, and clinic site. Participants were also asked if they participated in the initial AHEC "Diversity 101" training and whether they have provided care or interacted with an LGBT patient. Additionally, as the MCPH Department is

considering changing their patient screening form as a result of the PrEP® pilot, participants were asked if they feel it is important to ask patients about their sexual orientation and gender identity as part of the written registration form at the clinics. See Appendix B for the demographic questionnaire.

The author of the Gay Affirmative Practice (GAP) Scale (Crisp, 2006) granted permission to use this tool for data collection in this project. The GAP is a 30 question, self-report tool used to evaluate beliefs and behaviors with LGBT individuals. It is comprised of 15 questions to measure clinicians' beliefs about gay and lesbian clients using a 5-point Likert scale with response options ranging from 5= strongly agree to 1= strongly disagree. The next 15 questions measure behaviors that clinicians engage in when caring for gay and lesbian clients, with response options ranging from 5= always to 1= never. Since this project also focused on caring for bisexual and transgender individuals, the GAP item wording was expanded with permission and the words "lesbian and gay" were edited to "LGBT." Higher GAP subscale scores indicate an affirmative practice (beliefs and behaviors). Significant correlations with other constructs such as the Heterosexual Attitudes towards Homosexuals (HATH) and the Attitudes towards Lesbians and Gay Men Scale (ATLG) have been reported (Herek, 1988 & Larsen et. al., 1980, as cited in Crisp, 2006, p.121). Cronbach's alpha reliability is reported at 0.93 for the belief domain and 0.94 for the behavior domain (Crisp, 2006). While the GAP was originally developed for social workers and psychologists (Crisp, 2006), it has been utilized with other groups of healthcare providers/clinicians as well. Recently, Marucca et. al. (2018) used the GAP with nursing students to determine if they would exhibit LGBT affirming behaviors after participating in a transgender patient simulation with a

high-fidelity manikin as the patient. Chapman et al. (2012) also used the GAP in a study of nursing and medical students, with the focus on caring for children of LGBT parents.

For this project, the GAP was administered to participants three times. The pretest collected baseline information about beliefs and behaviors with LGBT individuals. Immediately after the educational intervention, participants completed only the 15 GAP questions related to beliefs to evaluate for immediate changes in beliefs following the education. Two-months after the intervention, the 30 question GAP survey was again administered via an online Qualtrics® link which was emailed to participants to determine if there were sustained changes in beliefs and if behaviors with LGBT individuals changed since the pretest was administered. See Appendix C for the original version of GAP scale items and Appendix D for the email granting permission to use the GAP and edit the words "lesbian and gay" to "LGBT." Appendix E provides the revised GAP scale as used in this project.

Following the intervention, participants also completed a Satisfaction Survey during the immediate posttest. This survey was created by the project lead and consisted of 4 quantitative items and 3 qualitative items. The first 3 quantitative items sought to obtain information about satisfaction with the overall education presentation, the educational content, and the presenter. These items used a 5-point Likert scale with response options ranging from 1= not satisfied at all to 5= very satisfied. Next, participants were asked to indicate whether they would recommend the training for other public health clinicians, with response options: Yes, No, and Maybe. The qualitative items sought to explore how participants thought they would use the education when providing care to LGBT individuals, thoughts about the transgender patient simulation

video, and suggestions for improving the project. See Appendix F for the Satisfaction Survey items.

3.7 Project Implementation and Data Collection Procedures

The intervention and data collection occurred separately at each clinic site, on seven separate occasions in October 2019. At each clinic site, the project lead provided participants an explanation of the project and a color-coded folder specific to that clinic site. This maintained privacy, confidentiality and reliability of source data. Each folder contained the informed consent form, demographic questionnaire, GAP pretest with both subscales (beliefs and behaviors), GAP immediate posttest (beliefs only), and posttest Satisfaction Survey. All of these surveys were completed in paper and pencil format during the on-site intervention implementation.

First, participants read the informed consent and then the project lead verbally reviewed this form and the data collection procedures. After providing time for participants to ask any questions, they were asked to sign the informed consent if they wished to participate and then the project lead gave instructions on how to create a unique seven-character identification code that they wrote onto each survey in order to link their confidential responses across time. Participants were provided the following directions to create their unique code: "the first two characters are your father's first and middle initial, the third character is your mother's maiden name initial, and the last four characters are your two-digit date of birth and two-digit year of birth." The instructions were provided with each GAP survey (pretest, posttest, and two-month posttest) and were accompanied by the following example: "Sally Thompson is participating in this project. She was born February 20, 1982. Her father's name is James Edward Thompson. Her

mother's name is Nancy Jane Smith Thompson (maiden name is Smith). Sally's identification code would be JES2082." Participants were asked to place their unique code on all GAP surveys they completed that day and on the two-month posttest.

Participants were then asked to complete the pretest surveys which included the demographic questionnaire and the GAP with both subscales (beliefs and behaviors). After participants completed the pretest surveys, the project lead implemented the educational intervention beginning with the PowerPoint slides and ending with the video recorded simulation with the standardized LGBT patient and debriefing as previously described. Upon completion of the intervention, participants were asked to complete the immediate posttest consisting of the GAP (beliefs subscale only) and the Satisfaction Survey. The intervention took 45 minutes, and completion of all surveys took 15 minutes. Participants were informed that their participation was over for the day and that they should expect an email from the project lead in two months with an embedded link to the Qualtrics® two-month posttest GAP survey. Participants provided their email addresses on a list that was separate from their surveys so that the project lead could send them this Qualtrics® link. At this time, the first drawing occurred for the gift cards.

In two months, the project lead sent participants an email with the link to the Qualtrics® two-month posttest GAP survey. Qualtrics® software, Version 1.3© [2019] was used to collect data for the two-month posttest. Participants were informed again of the procedure for creating their unique identifying code in order to match the two-month posttest survey to their pretest and immediate posttest surveys. They were also informed that continuing to the link and completing the two-month posttest survey constituted their consent to participate in the third timepoint of data collection. The posttest consisted of

the GAP with both subscales (beliefs and behaviors) and after completion, participants were informed that their participation in the project was now complete and gift card winners would be randomly drawn from those who chose to enter their email address at the end of the survey. Email addresses were gathered on a separate page on Qualtrics® to protect confidentiality. See Appendix G for an outline of Project Implementation and Data Collection Procedures.

3.8 Data Analysis

Data from the paper surveys was manually entered by a graduate assistant (GA) into Statistical Package for Social Sciences (SPSS®) version 26 for data analysis. Survey responses received via Qualtrics® software were transferred to SPSS by the GA and responses were matched over timepoints using the unique identifiers that participants wrote. Responses on the demographic questionnaire were assessed using descriptive statistics (number, frequency). Individual items on the GAP pretest survey were analyzed using descriptive statistics (mean, standard deviation). Mean subscale (beliefs and behaviors) scores on the GAP surveys were computed at all three timepoints and results were presented using descriptive statistics (mean, standard deviation, minimum and maximum scores). Upon examination, a non-normal data distribution was noted. Therefore, to evaluate for statistically significant changes in scores for each of the subscales, non-parametric statistical procedures were used. Specifically, the Freidman's test and Wilcoxon Signed Rank test were used, with $p < 0.05$. In addition, Spearman rho, the Mann-Whitney U test, or the Kruskal-Wallis test were used to explore relationships between demographic variables and the mean pretest beliefs and behaviors subscale scores. Finally, quantitative items on the Satisfaction Survey were assessed using

descriptive statistics (mean, standard deviation, number, frequency) and qualitative comments were analyzed for themes. A faculty advisor and a faculty statistician were consulted to assist with review of the data analysis plan and review of the analyzed data to enhance trustworthiness.

3.9 Ethical Considerations

This project was submitted to the UNCC Institutional Review Board (IRB) for review, and an exemption was granted. Participants were informed that their participation in this project was voluntary and that if they did not want to complete any surveys, they could still attend the educational intervention. The informed consent was reviewed with all participants and any questions were answered by the project lead. Provision of signed informed consent was required to participate in this project. To protect participant confidentiality, participants did not provide identifying information (such as name) on their surveys, but instead created a unique identifier (as previously described) to track responses over time. Completed surveys were collected in their folders by the project lead and stored in her office on the UNCC campus in a locked file cabinet. The list of participants' email addresses was kept separate from responses. After survey data was entered into SPSS, paper surveys were returned to the locked file cabinet and will be kept for a period of three years, after which time they will be destroyed. All electronic data was kept in a dually authenticated, password protected electronic SPSS file. All data results were presented in aggregate form after data analysis, and not presented by individual participant to protect confidentiality. Qualitative findings on the Satisfaction Survey were presented as overall themes and quotes were provided to promote rich understanding. Participant quotes were not accompanied by any identifying information.

Chapter 4: PROJECT FINDINGS AND RESULTS

4.1 Sample Size and Demographic Information of Full Sample

The targeted educational training was conducted with seven separate groups of participants on seven different dates and locations in October 2019. A total of 69 clinicians participated and completed the pretest and immediate posttest surveys. A participation rate could not be calculated due to the unknown number of clinicians that were or were not present for work at each clinic on the dates of the intervention. The characteristics of the 69 participants are shown in the tables and figures below and frequencies were used to analyze the demographic data. The sample consisted of primarily females (85.5%), with the age of participants fairly evenly distributed between the ages of 18-60 (97.1 %). More than half identified their race as Black/African American (52.2%) and their sexual orientation as heterosexual (73.9%).

Table 1. Age, Gender, Race/Ethnicity, Sexual Orientation of Participants.

Age in years		Gender		Race/Ethnicity		Sexual orientation	
18-30	27.5%	Male	14.5%	Hispanic/ Latinx	24.6%	Heterosexual	73.9%
31-40	26.1%	Female	85.5%	Black/ African American	52.2%	Homosexual/ Lesbian	17.4%
41-50	21.7%	Prefer not to answer	0%	White/ Caucasian	18.8%	Bisexual	7.2%
51-60	20.3%	Self-identify	0%	Asian/ Native Hawaiian/ Pacific Islander	2.9%	Transgender	0%
						Prefer not to answer	1.4%
61+	2.9%			Prefer not to answer	1.4%		
						Other (Specify)	0%
No response	1.4%						

Figure 1 indicates the clinicians' roles in the clinic setting. The majority identified themselves as "Other" and indicated they were Coordinators, Administrators, or Financial Office Staff (42.6%). The next two largest groups were Medical Assistants or Nurse's Aides (14.5%) and Receptionists (10.3%). Registered nurses comprised 7.4% of the sample.

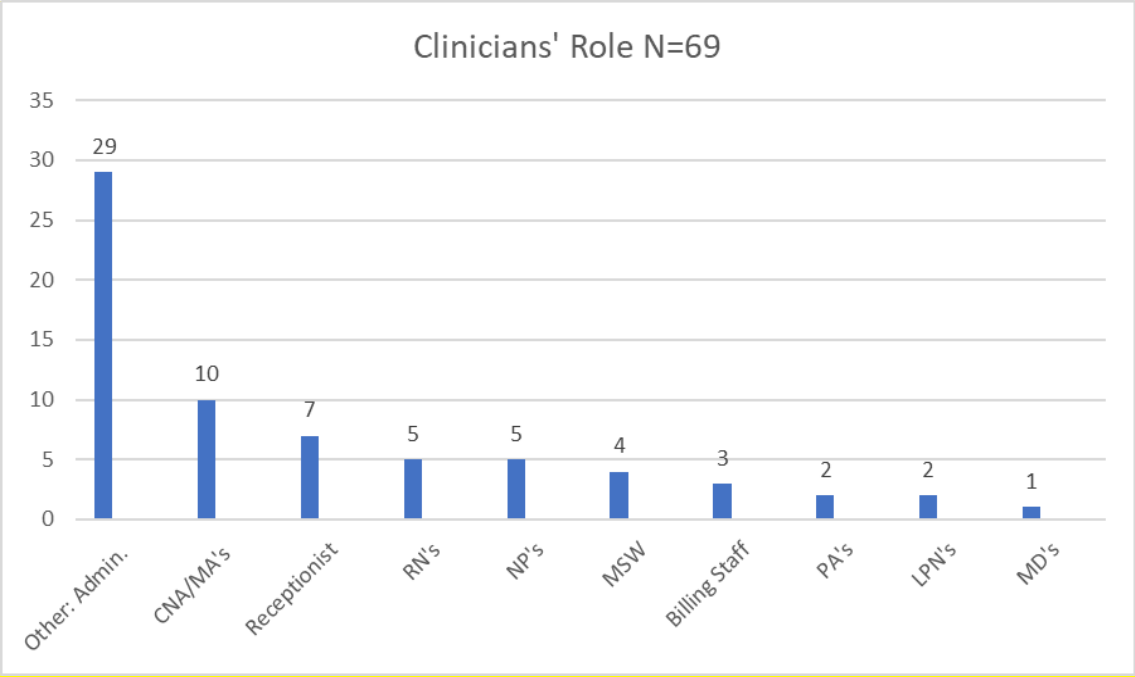

Figure1. Role of Clinicians.

Table 2. Years of Public Health Experience

Years of Public Health Experience		
	Number	Percentage
≤ 1 year	8	11.6%
1-5 years	25	36.2%
6-10 years	10	14.5%
10+ years	26	37.7%
Responses from Each Clinic Site		
	Number	Percentage
Clinic 1	13	18.8%
Clinic 2	9	13.0%
Clinic 3	6	8.7%
Clinic 4	9	13.0%
Clinic 5	7	10.1%
Clinic 6	16	23.2%
Clinic 7	9	13.0%

Table 2 indicates the tenure of working in the public health setting and the distribution of clinic work sites of the clinician participants. Twenty-six reported having 10 or more years working in public health (37.7%), with these responses being reported from all clinic sites.

The majority reported that they believe they have cared for an LGBT patient at some point in their tenure as a public health clinician (87.0%). There were approximately equal responses to whether the clinician participants had participated in the previous AHEC diversity training, with 32 (47.8%) reporting yes and thirty-five (52.2%) reporting no. Most participants indicated they believed clients should be asked their sexual orientation (78.8%) and gender identity (89.9 %) on intake forms.

Relationships between demographic variables and the beliefs and behaviors pretest mean subscale scores were examined for the full sample. Spearman rho was used to detect relationships for the variables age and years' experience. There was no significant relationship for age and beliefs ($\rho = 0.047$, $p = 0.702$) or for age and behaviors ($\rho = 0.101$, $p = 0.453$). There was also no significant relationship for years' experience and beliefs ($\rho = 0.162$, $p = 0.182$) or for years' experience and behaviors ($\rho = 0.092$, $p = 0.491$). Due to just two categories for the variables prior AHEC training, gender, and sexual orientation, the Mann-Whitney U test was used. There were no significant group differences for prior AHEC diversity training and beliefs ($z = -0.314$, $p = 0.754$) or for

prior AHEC diversity training and behaviors (z= -0.205, p= 0.837). There were no significant group differences for gender and beliefs (z= -1.007, p= 0.314); however, for gender and behaviors it was found that males reported more affirming behaviors than females (z= -3.095, p= 0.002). There was a significant group difference for sexual orientation and beliefs (z= -2.424, p= 0.015) and for sexual orientation and behaviors (z= -3.405, p= 0.001), with clinicians identifying as LGBT having more affirming beliefs and behaviors than heterosexual clinicians. For variables with more than two categories (race/ethnicity, role, clinic, and having provided care to an LGBT individual), the Kruskal-Wallis test was used. There were no significant group differences for race and beliefs (χ^2= 6.725, p= 0.081) or for race and behaviors (χ^2= 5.682, p= 0.128). There were no significant group differences for role and beliefs (χ^2= 11.384, p= 0.250) or for role and behaviors (χ^2= 9.926, p= 0.356). There were no significant group differences for clinic and beliefs (χ^2= 10.834, p= 0.094) or for clinic and behaviors (χ^2= 10.092, p= 0.121). Finally, there was no significant group differences for having provided care to an LGBT individual and beliefs (χ^2= 3.306, p= 0.191); however, there was a significant relationship for having provided care to an LGBT individual and behaviors, with those replying "yes" having more affirming behaviors (χ^2= 12.303, p= 0.002).

4.2 Sample Size and Demographic Information of Completer Sample

Participants were extended the opportunity to complete the third timepoint GAP via an emailed Qualtrics® link. Of the 69 participants, 20 completed the third timepoint GAP (29.0% completion rate). Due to the low completion rate, demographic data for the completer group was also assessed separately. The demographic information of the completer sample group is as follows: Ten (50.0%) were age 18-30 years, eighteen

(90.0%) were female, seven (35.0%) identified as LGBT, and ten (50.0%) reported their race to be African-American. For roles, social worker and nurse aide/medical assistant were the most common roles at three each (15.0%), and nine had one to five years' experience in public health (45.0%). Clinic six had the highest level of participation with six respondents (30.0%), and clinics one and five had three respondents each (15.0%). Nine (45.0%) had participated in the prior AHEC diversity training, fourteen (73.7%) believed their clinic should ask about a client's sexual orientation, and seventeen (89.5%) believed their clinic should ask about a client's gender identity (one respondent declined to answer either of these questions). Finally, seventeen believed they have cared for an LGBT client (85.0%), with two citing they have not (10.0%) and one responding they are unsure if they've cared for an LGBT client during their tenure in public health (5.0%).

4.3 Scale Reliability/Internal Consistency

The GAP consisted of two subscales. Due to the GAP being amended to include the term "LGBT" in place of "lesbian and gay," Cronbach's alpha tests were run to assess internal consistency. It was found that there was a high degree of reliability for both the full GAP and each of the subscales. Cronbach's alpha results were: full scale $\alpha = 0.96$, belief subscale $\alpha = 0.96$, and behaviors subscale $\alpha = 0.96$.

4.4 Beliefs Results

The Beliefs subscale was administered at timepoints 1, 2 and 3. Upon the tests for Normality/Kurtosis, data was found to be significantly skewed to the right on visual assessment of the histogram. This required the use of non-parametric statistics. The Wilcoxon Signed Rank Test which converts scores to ranks was used to detect changes from pretest to immediate posttest for the full sample. For the completer sample,

Freidman's Test was utilized to detect changes from pretest to immediate posttest to two-month posttest, with post hoc analysis using the Wilcoxon Signed Rank Test. Significance was set at $p< 0.05$.

4.5 Beliefs Results for Full Sample (N=69)

Individual item mean scores for beliefs were assessed for the full sample on the pretest. The maximum score was 5.00 and indicated the highest level of self-reported affirming beliefs. Mean scores for all 15 of the beliefs questions were between 4.29 to 4.67. The mean beliefs subscale score was 4.53 (*SD*= 0.542) on the pretest. See Table 3. The immediate posttest mean beliefs subscale score was 4.75 (*SD*= 0.467). The Wilcoxon Signed Rank test for the beliefs subscale for the full sample revealed a statistically significant improvement in affirmative beliefs immediately after participation in the LGBT targeted educational intervention, z= - 4.86, p< 0.001. The effect size was noted to be large, r= -0.585. The median score for beliefs increased from pretest (*Md=4.7)* to immediate posttest *(Md=5.0).*

Table 3. Beliefs Results for Full Sample (N=69).

Belief Pretest Results for Full Sample	Mean	SD	Range
Q1 Support diverse makeup of their families	4.65	.623	3.00-5.00
Q2 Verbalize respect	4.53	.782	1.00-5.00
Q3 Effort to learn about diversity	4.63	.671	2.00-5.00
Q4 Knowledgeable about LGBT resources	4.67	.560	3.00-5.00
Q5 Educate themselves about LGBT lifestyles	4.62	.692	2.00-5.00
Q6 Help develop positive identities	4.34	.745	3.00-5.00
Q7 Challenge misinformation	4.29	.855	2.00-5.00
Q8 Professional development	4.65	.590	3.00-5.00
Q9 Encourage LGBT to create networks	4.40	.775	3.00-5.00
Q10 Knowledgeable about LGBT issues	4.50	.678	3.00-5.00
Q11 Acquire necessary knowledge for practice	4.59	.674	2.00-5.00
Q12 Develop necessary skills for practice	4.64	.593	3.00-5.00
Q13 Develop necessary attitudes for practice	4.57	.795	1.00-5.00
Q14 Help reduce shame	4.30	.877	2.00-5.00
Q15 Discrimination creates problems	4.62	.718	1.00-5.00
Beliefs Subscale Mean Pretest Score	4.53	.542	2.8- 5.00

4.6 Beliefs Results for Completer Sample (N=20)

The mean beliefs subscale results for the completer sample (n=20) were as follows: Timepoint 1 (*M= 4.42, SD= 0.689, Range of scores= 2.8-5.0);* Timepoint 2 *(M= 4.63, SD= 0.642, Range of scores= 3.0-5.0);* Timepoint 3 (*M= 4.32 SD= 0.701, Range of scores= 3.0-5.0).* The results of the non-parametric Freidman's Test detected significant changes in affirmative beliefs among the three time periods, χ^2 *(2, n=20)= 8.213, p= 0.016*. Inspection of the median values showed an improvement in affirmative beliefs from pretest (*Md= 4.7*) to immediate posttest (*Md= 5.0*); however, there was a decrease from immediate posttest *(Md= 5.0*) to two-month posttest (*Md= 4.30*). The post-hoc Wilcoxon Signed Rank tests for the completer sample beliefs subscale showed a statistically significant increase in affirmative beliefs from Timepoint 1 to Timepoint 2 (*z= -2.150, p= 0.032,* with medium effect size r= -0.481), then a significant decrease in affirmative beliefs from Timepoint 2 to Timepoint 3 *(z= -2.501, p= 0.012*). There was no significant difference between Timepoint 1 to Timepoint 3 (*z= -0.596, p= 0.551*). See Table 4 for descriptive results for the completer sample on beliefs subscale.

Table 4. Results of Beliefs Subscale for Completer Sample (N=20).

GAP Beliefs Completer Sample	**Mean**	**Std. Dev.**	**Range**
Pretest (Timepoint 1)	4.42	.689	2.8-5.0
Immediate Posttest (Timepoint 2)	4.63	.642	3.0-5.0
2-Month Posttest (Timepoint 3)	4.32	.701	3.0-5.0

4.7 Behaviors Results

The Behaviors subscale was administered at timepoints 1 and 3, to determine if differences were indicative of change in behaviors. Upon the tests for Normality/ Kurtosis, data was not normally distributed; thus, requiring the use of non-parametric statistics. The Wilcoxon Signed Rank Test which converts scores to ranks was used to detect changes from pretest to two-month posttest for the completer sample only. Significance was set at $p < 0.05$.

4.8 Behaviors Results for Full Sample (N=69)

Individual item mean scores for behaviors were assessed for the full sample on the pretest. The maximum score was 5.00 and indicated the highest level of self-reported affirming behaviors. Mean scores for all 15 of the behaviors questions were between 2.57 to 4.42. The mean behaviors subscale score was 3.43 (*SD*= 1.21) on the pretest. See Table 5.

Table 5. Behaviors Results for Full Sample (N=69).

Behavior Results for Full Sample Pre-test	Mean	SD	Range
Q16 Help reduce shame	3.57	1.48	1.00-5.00
Q17 Address societal prejudice	3.28	1.51	1.00-5.00
Q18 Inform about gay affirmative resources	2.88	1.56	1.00-5.00
Q19 Acknowledge impacts of homophobia	2.93	1.50	1.00-5.00
Q20 Respond to sexual orientation relevance	3.80	1.57	1.00-5.00
Q21 Overcome religious oppression	2.72	1.62	1.00-5.00
Q22 Provide interventions for safety	3.16	1.70	1.00-5.00
Q23 Verbalize orientation as healthy	3.36	1.72	1.00-5.00
Q24 Demonstrate comfort about LBGT	3.40	1.52	1.00-5.00
Q25 Help identify internalized homophobia	2.57	1.59	1.00-5.00
Q26 Educate myself about LGBT	3.72	1.39	1.00-5.00
Q27 Open-minded tailoring treatments	4.42	1.14	1.00-5.00
Q28 Voluntary climate for self-identification	4.33	1.26	1.00-5.00
Q29 Discuss in non-threatening manner	4.00	1.57	1.00-5.00
Q30 Facilitate expression of anger	3.28	1.77	1.00-5.00
Behaviors Subscale Mean Score	3.43	1.21	1.00-5.00

4.9 Behaviors Results for Completer Sample (N=20)

The mean results for the behaviors subscale for the completer sample (n=20) were as follows: Timepoint 1 (*M= 3.30, SD= 1.30, Range of Scores= 1.0-5.0),* Timepoint 3 (*M= 3.60, SD= 1.45, Range of Scores= 1.0-5.0).* See Table 6. Using the Wilcoxon Signed rank test, inspection of the median values indicated an improvement in affirmative behaviors from pretest (*Md= 3.60*) to two-month posttest (*Md= 4.27*). This increase in affirmative behaviors was statistically significant (*z= -3.008, p= 0.003*), with a large effect size, r= -0.673).

Table 6. Results of Behaviors Subscale for Completer Sample (N=20).

GAP Behaviors Completers Sample	**Mean**	**Std. Dev.**	**Range**
Pretest (Timepoint 1)	3.30	1.30	1.0-5.0
2-Month Posttest (Timepoint 3)	3.60	1.45	1.0-5.0

4.10 Satisfaction Survey Results

After completing the immediate posttest, participants also completed a satisfaction survey to evaluate the educational intervention. This survey consisted of three satisfaction items that used a 5-point Likert scale to note if not satisfied at all (1), somewhat satisfied (2), mostly satisfied (3), satisfied (4), or very satisfied (5). Results for overall satisfaction were *M= 4.51, SD= 0.683,* with 92.5 % reporting being satisfied or very satisfied. The item to measure satisfaction with the content showed *M= 4.54, SD= 0.703*, with 91.1% reporting being satisfied or very satisfied. Satisfaction with the presenter was rated at *M= 4.67, SD= 0.60,* with 95.5 % reporting being satisfied or very satisfied. In addition, Question 4 inquired if participants would recommend the educational intervention to others. Figure 3 shows the results of this question, with 90.5% of participants indicating yes.

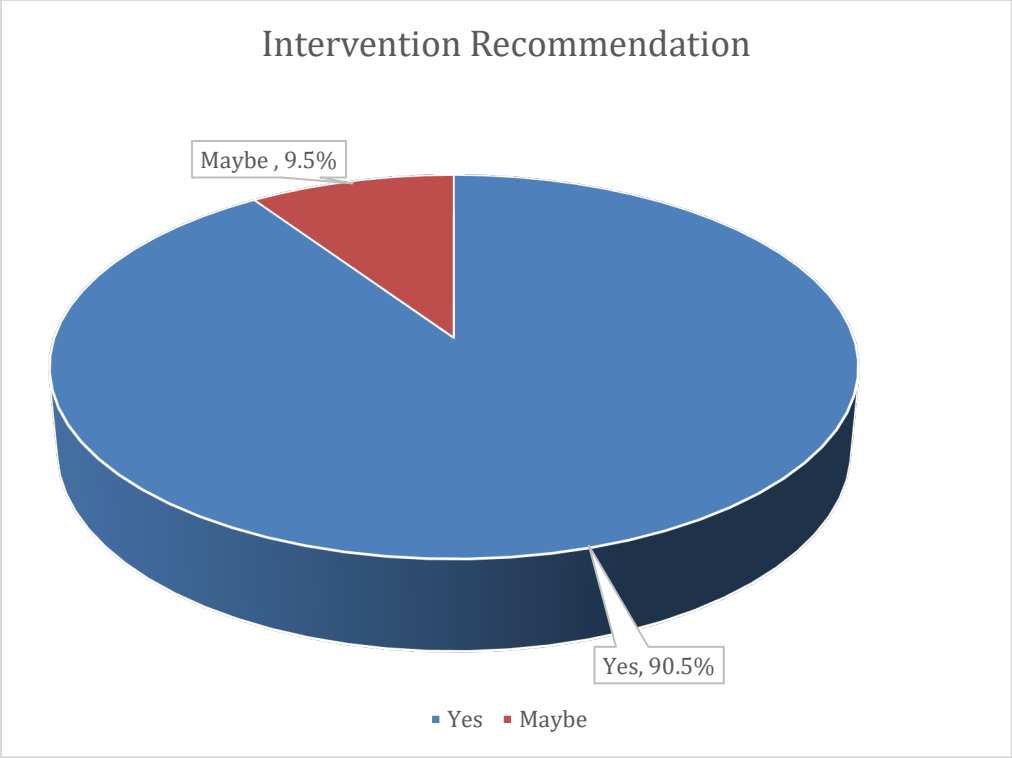

Figure 2. Intervention Recommendation

Next, participants were administered three open-ended questions to give them the opportunity to write comments regarding their opinion on their future use of the presented education, their appraisal of the standardized patient simulation video, and their suggestions for improvement. Using content analysis, the frequency of themes noted within comments was evaluated and two themes resulted: Future use of content and appraisal of simulation video and education. Supportive participant quotes were provided to enrich understanding. See Table 7 and Table 8. Some participants indicated a response in more than one column, therefore frequencies may not total 100%.

Table 7. Content Utilization Comments

Future Use of Content		
Provider education/change behavior	18	26.1%
Increased understanding/awareness	10	14.5%
Aid clients/patients to alleviate discomfort	5	7.2%
Promote self-reflection	5	7.2%
Felt were already aware of what video depicted	2	2.9%%
Other use	5	7.2%
No Reply	24	34.8
Exemplar Qualitative Comments: "I will make sure I identify pronouns." "I will be more attentive asking questions." "It could be part of staff orientation or offered as annual education." "Making us aware of how we interact w/ clients as well as to check our own internal bias"		

Table 8. Participants Appraisal of Simulation Video Comments

Appraisal of Simulation Video and Education		
Helpful/informative	16	23.2%
Accurately portrayed	12	17.4%
Felt negatively towards the nurse	8	11.6%
Effective/impactful	5	7.2%
Other emotions	4	5.8%
Shows room for improvement	2	2.9%
No Reply	22	31.9%
Qualitative Comments: "It was so upsetting to see how uncomfortable the patient became." "It shows the importance of treating clients the way they want to be treated." "Opens your eyes to how others may treat transgenders. Be more polite and treat all with respect." "The video showed how patients can feel discriminated." "The video was created very well. That nurse was horrible."		

Chapter 5. DISCUSSION

5.1 General Summary

The findings of this EBP project suggest that providing LGBT-specific education utilizing a standardized patient simulation to public health clinicians can improve their beliefs and behaviors to be more affirming when caring for LGBT individuals. This project is significant because it addressed several gaps in the literature. Beliefs and behaviors were evaluated two months after the education. This was important to evaluate if beliefs towards the LGBT individual can be sustained over time following education and to evaluate whether self-reported behavior changes in practice resulted. This project was also unique in that it entailed bringing simulation (via video) to clinic settings to provide a realistic and experiential component to the learning. Simulation was not previously utilized at the public health clinic settings that were part of this project. Utilizing simulation as a methodology to provide LGBT education to public health clinicians is an ideal way to provide realistic and culturally inclusive clinical learning experiences to improve affirming beliefs and behaviors to promote application to their current practice. This intervention component was chosen due to prior studies with nursing and medical students, social workers, and psychologists (both with and without simulations) that showed a significant increase in awareness of homophobic beliefs and biases, empathizing with patient concerns, and confidence and comfortableness when interacting with the LGBT patient (Crisp, 2006; Hickerson, Hawkins, & Hoyt-Brennan, 2018; Marucca, Diaz, Stockman, & Gonzalez, 2018; Sabin et al., 2015). The ability to provide this information as a standardized simulation affords a reasonably inexpensive and visually impactful way to educate a multitude of providers that may not have otherwise accessed this information. Recent research found that when used with

undergraduate nursing students, video recorded standardized simulations resulted in a statistically significant increase in knowledge acquisition among the video group participants who scored 0.19% to 5.09% higher on posttest items than students receiving only case studies. Further, qualitative data revealed the simulation videos "enhanced their learning experience" (Herron, Powers, Mullen & Burkhart, 2019 p. 132). This project presented the public health clinicians an opportunity to engage in Campinha-Bacote's cultural competence constructs: cultural awareness, cultural knowledge, or cultural desires, thus preparing them to provide culturally responsive healthcare when the opportunity arises for cultural skill (2002).

5.2 Impact on Beliefs

Analysis of the GAP beliefs results showed a statistically significant increase in affirmative beliefs after the educational intervention. Mean scores for the full sample went from 4.53 to 4.75 (given a maximum achievable score of 5.0). To identify if beliefs scores were sustained two months after the education, the GAP was administered again. Unfortunately, only 20 clinicians completed the GAP at all 3 timepoints. For these clinicians, the mean score significantly increased from 4.42 on the pretest to 4.63 on the immediate posttest, then returned to near baseline on the two-month posttest (*M=4.32)*. The Wilcoxon Signed Rank test indicated there was no significant difference in participants' beliefs from timepoint one to timepoint three. This may indicate a loss of knowledge gained during the education or could have resulted from lack of repetitive and consistent affirming LGBT information during that time period. Similar slight improvement in beliefs were found in the Marucca et al. (2018) study of forty-eight nursing students. In this study, pretest beliefs (identified as attitude) showed no

statistically significant change (Wilcoxon z= -1.844, p= 0.065) from pretest (*M= 61, SD= 13.77, Md= 64)* to posttest (*M= 61, SD 17.28, Md= 66*) (Marucca et al., 2018). In this EBP project, beliefs scores did decrease two months after the education and qualitative comments indicated some participants believed there is a need for this educational training as part of staff orientation or annual education. This supports the need for ongoing education. However, it is also important to note that all mean scores for the beliefs items and for the full subscale were above 4.0 which correlated with "agree" on average for all items related to beliefs. This may indicate participants started out with affirming beliefs.

5.3 Impact on Behaviors

Participants' self-reported behaviors with LGBT individuals were assessed on the pretest and the two-month posttest. Analysis of the pretest results for the full sample showed a higher level of score variability for behaviors than for beliefs. For the 15 behaviors items, mean scores ranged from 2.57 ("rarely") to 4.42 ("usually") and the behaviors subscale mean score was 3.43 ("sometimes"). Therefore, while beliefs were found to be affirming overall, responses to several of the behaviors items indicated a need for improvement in affirming behaviors. Behaviors mean scores on items such as helping patients "overcome religious oppression they've experienced" scored low at 2.72 and informing patients "about gay affirmative resources in the community" scored low at 2.88, whereas "being open-minded when tailoring treatment" scored more affirmatively at 4.42 and "discussing sexual orientation in a non-threatening manner" scored higher at 4.00. To see if there was a significant increase in affirmative behaviors two months after the education, the GAP was readministered and the mean score significantly increased

from 3.30 to 3.60 for the completer sample. This is a promising finding because it signifies that education on LGBT care that includes a simulation has the potential to improve actual behaviors in clinical settings. These findings are also comparable to Marucca et al. (2018) who found that GAP behaviors scores improved significantly (Wilcoxon z= -3.003, p= 0.003) from pretest (M= 50, SD=15.55) to posttest (M= 54, SD= 15.90).

5.4 Satisfaction Results

Participants expressed being satisfied or very satisfied (95.5%) with the overall presentation, and were specifically satisfied with the video recorded simulation of the transgender patient. The great majority (90.5%) indicated they would recommend the training to others, with suggestions that the training "could be part of staff orientation or annual education." Participants' qualitative comments spoke to the profound effect they felt from participating: "It was upsetting to see how uncomfortable the patient became" and "It shows the importance of treating clients the way they want to be treated." They further indicated how the presentation would change their behaviors in future encounters with LGBT individuals: "I will make sure I identify pronouns" and "I will be more attentive asking questions." These are similar to findings in Gendron et al. (2013), who found that participants indicated as a result of their experience with training on LGBT healthcare issues with aged adults, their level of awareness significantly increased (t= 8.65, p< 0.001) from pretest (*M= 0.53, SD= 0.50*) to posttest (*M= 0.93, SD= 0.26*). As a result, stakeholders stated they would make the training "mandatory for all staff members" and further planned to implement policies relevant to the care of LGBT clients (Gendron et al., 2013, p. 461).

5.5 Project Strengths and Implementation Challenges

Successes include high validity and reliability of the GAP measurement tool, logistical coordination and support from participating clinical sites, and collaboration with seven individual public health clinics interspersed throughout the city to complete project implementation and pretest and immediate posttest data collection within one month. Despite the projects' successes, there were several challenges that presented. Some of the clinic sites had small break rooms that required rearrangement or removal of furniture in order to accommodate staff. Of the seven sites, only two had a working compatible audiovisual system to project the training PowerPoint and simulation video. Thus, some participants did not have a comfortable environment in which to learn and resources were needed to be able to implement the intervention. Another challenge was that despite coordination with clinic managers, on occasions the clinic staff had either forgotten about the scheduled training and made plans to go off premises for lunch or simply decided not to participate. Understanding of these challenges is important to shape ongoing LGBT education at public health clinic sites.

5.6 Limitations

This project had several limitations primarily due to the logistics of coordinating implementation at seven clinical sites geographically interspersed throughout the city. This made it not feasible to return to those same sites (would need to return repeatedly to ensure all staff could participate due to their work schedules) for the final and third timepoint data collection. This necessitated completing the third timepoint data collection via online survey, which may have accounted for the major limitation of a small sample size on the two-month posttest. In addition, this project included a variety of clinicians

with varying educational backgrounds, literacy, and understanding. It was noted that some participants had difficulty in understanding how to create their unique 7-digit code to maintain anonymity and confidentiality. This may have created some confusion and therefore some participants may have chosen not to respond at the third timepoint. The project lead was also informed of several other surveys and program evaluations occurring at these PrEP pilot sites, and staff may have been inundated with too many projects simultaneously.

Another limitation was use of self-report survey tools. Participants may have felt compelled by a sense of job commitment to participate in the project or could have altered their answers in an attempt to appear more affirming. However, the project lead explained (verbally and in writing) that participation was voluntary and their personal information would not be associated with their data. Next, each presentation occurred during the participants' lunch hour. Even though food was provided, there was a sense of urgency and this distraction may have interfered with knowledge uptake and retention, or may have caused participants to rush when completing surveys.

5.7 Recommendations for Future Projects and Research

This project can be replicated to promote more widespread education within public health clinics that provide care to LGBT individuals. The use of the video format for the standardized patient simulation is recommended because it decreases cost and prevents scheduling challenges associated with having standardized patients come to the clinic sites. Replicating this project at a regional meeting with a larger population is another recommendation for disseminating information about LGBT care to public health clinicians. Other potential modifications may be to also create an online educational

module to provide participants more time to absorb materials taught to sustain their educational gains.

This project included a very diverse sample of clinician roles to encompass anyone who had substantive contact with patients, including receptionists, nurse and medical assistants, and social workers. These clinicians may have answered differently than those clinicians who physically examine patients. It may be helpful to target specifically and separately those providers who examine, treat, and prescribe to patients (such as physicians, nurse practitioners, nurses). These clinician roles were not well-represented in this project and future studies should seek to examine the effect of education on these clinicians to further advance the promotion of affirming beliefs and behaviors. Additionally, due to significant correlations between clinician sexual orientation and beliefs and behaviors scores, future studies should explore the impact of having a sexually-diverse workforce at healthcare clinics.

Future research should also seek to gain a larger sample at the third timepoint. Further, studies could seek to observe clinician behaviors to provide a higher level of evidence related to behavioral changes. Future studies can also seek to determine the long-term effect of continued LGBT health education on both providers and patients. Finally, this project could be replicated to research to investigate if education improves the affirming beliefs and behaviors in other healthcare arenas (such as hospitals, etc.), as well as to investigate outcomes following the incorporation of LGBT-specific education in pre-licensure programs of various healthcare providers.

5.8 Conclusion

Public health clinicians provide care to diverse patients, including LGBT individuals. It is imperative to patient health outcomes that LGBT patients are met with

affirming beliefs and behaviors. This project demonstrated significant improvements in public health clinicians' affirming beliefs and behaviors towards LGBT individuals following education that included a standardized patient simulation video. This novel approach improved beliefs immediately post-education; however, beliefs did not sustain in two months later, indicating a need for ongoing education. Self-reported behaviors were notably low on the pretest and significantly improved two months after the education. Future research focused on examination of long-term behaviors is recommended as clinicians' affirming behaviors can affect whether LGBT individuals continue to seek healthcare.

References

Adult LGBT population in the United States Retrieved from: https://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBT-Population-Estimates-March-2019.pdf

American Association of Colleges for Nursing. (2011). *AACN toolkit for cultural competence in master's and doctoral nursing education.* Retrieved from: https://www.aacnnursing.org/Portals/42/AcademicNursing/CurriculumGuidelines/Cultural-Competency-Grad-Tool-Kit.pdf

Bonvicini, K. (2017). LGBT healthcare disparities: What progress have we made? *Patient Education and Counseling*, *100*(12), 2357–2361. https://doi.org/10.1016/j.pec.2017.06.003

Campinha-Bacote, J. (2002, July). The process of cultural competence in the delivery of healthcare services: A model of care. *Journal of Transcultural Nursing*, *13*(3), 181-184. Retrieved from: https://journals.sagepub.com/doi/abs/10.1177/10459602013003003

Centers for Disease Control and Prevention. *HIV Surveillance Report*, 2016; vol. 28. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published November 2017. Retrieved: March 21, 2019

Chapman, R., Watkins, R., Zappia, T., Nicol, P., & Shields, L. (2011, June). Nursing and medical students' attitudes, knowledge and beliefs regarding lesbian, gay, bisexual and transgender parents seeking healthcare for their children. *Journal of Clinical Nursing*, *21*, 938-945. doi:10.1111/j.1365-2702.2011.03892.x

Crisp, C. (2006). The Gay Affirmative Practice Scale (GAP): a new measure for assessing cultural competence with gay and lesbian clients. *Social Work, 51*(2), 115-126. Retrieved from: https://doi.org/10.1093/sw/51.2.115

Cornelius, J. B., & Carrick, J. (2015, May). Survey of nursing students' knowledge and attitudes toward LGBT health care concerns. *Nursing Education Perspectives, 36*(3), 176-178. doi: 10.5480/13-1223

Data Analysis for Quasi-Experimental Design (2019). *Center for Innovation in Research and Teaching*. (CIRT) Retrieved from: https://cirt.gcu.edu/research/developmentresources/research_ready/quasiexperimental/data_analysis

Decker, S., Fey, M., Sideras, S., Caballero, S., Rockstraw, L. (R.), Boese, T., Franklin, A. E., Gloe, D., Lioce, L., Sando, C. R., Meakim, C., & Borum, J. C. (2013, June). Standards of Best Practice: Simulation Standard VI: The debriefing process. *Clinical Simulation in Nursing, 9*(6S), S27-S29. https://dx.doi.org/10.1016/j.ecns.2013.04.008

Dıaz, D. A., Maruca, A. T., Gonzalez, L., Stockmann, C., Hoyt, E., & Blackwell, C. W. (2017, September). Simulation design: Addressing care of a transgender patient. *Clinical Simulation in Nursing, 13*(9), 452-459. http://dx.doi.org/10.1016/j.ecns.2017.05.006

Foronda, C., & MacWilliams, B. (2015). Cultural humility in simulation education: A missing standard? *Clinical Simulation in Nursing*, *11*, 289-290. Retrieved from http://dx.doi.org/10.1016/j.ecns.2015.04.002

Foronda, C. L., Baptiste, D.-L., Pfaff, T., Velez, R., Reinholdt, M., Sanchez, M., & Hudson, K. W. (2018, February). Cultural competency and cultural humility in simulation-based education: An integrative review. *Clinical Simulation in Nursing, 15*, 42-60. Retrieved from: https://doi.org/10.1016/j.ecns.2017.09.006

Foronda, C., Prather, S., Baptiste, D., Townsend-Chambers, C., Mays, L., Graham, C., & Foronda, C. (2019). Underrepresentation of racial diversity in simulation: An international study. *Nursing Education Perspectives*. Advance online publication. 1-5. doi.org/10.1097/01.NEP.0000000000000511

Gay Lesbian Medical Association [GLMA]. (2006). *Guidelines for care of lesbian, gay, bisexual and transgender patients: Creating a welcoming clinical environment for LGBT patients.* Retrieved from: http://glma.org/_data/n_0001/resources/live/GLMA%20guidelines%202006%20FINAL.pdf

Gendron, T., Maddox, S., Krinsky, L., White, J., Lockeman, K., Metcalfe, Y., & Aggarwal, S. (2013). Cultural competence training for healthcare professionals working with LGBT older adults. *Educational Gerontology*, *39*, 454-463. doi:10.1080/03601277.2012.701114

Herron, E., Powers, K., Mullen, L., & Burkhart, B. (2019). Effect of case study versus video simulation on nursing students' satisfaction, self-confidence, and knowledge: A quasi-experimental study. *Nurse Education Today, 79*, 129–134. doi.org/10.1016/j.nedt.2019.05.015

Hickerson, K., Hawkins, L. A., & Hoyt-Brennan, A. M. (2018, March). Sexual orientation/gender identity cultural competence: A simulation pilot study. *Clinical Simulation in Nursing, 16,* 2-5. https://doi.org/10.1016/j.ecns.2017.10.011

Institute of Medicine. (2011). *The health of lesbian, gay, bisexual, and transgender people: Building a foundation for a better understanding.* Washington, D.C. The National Academies Press. Retrieved from: http://thefenwayinstitute.org/documents/lgbthealthreportbriefembargoed.pdf

Klein, E. W., & Nakhai, M. (2016). Caring for lgbtq patients: Methods for improving physician cultural competence. *The International Journal of Psychiatry in Medicine*, *51*(4), 315-324. doi:10.1177/0091217416659268

Kleinpell, R., & Kleinpell, R. (2013). *Outcome Assessment in Advanced Practice Nursing* (3rd ed.). New York: Springer Publishing Company.

Krakower, D., Ware, N., Maloney, K., Wilson, I., Wong, J., & Mayer, K. (2017). Differing experiences with pre-exposure prophylaxis in Boston among lesbian, gay, bisexual, and transgender specialists and generalists in primary care: Implications for scale-up. *AIDS Patient Care & STDs, 31*(7), 297–304. Retrieved from: https://doi.org/10.1089/apc.2017.0031

Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social Science; social equilibria and social change. *Human Relations*, *1*(1), 5–41. Retrieved from: https://doi.org/10.1177/001872674700100103

Lim, F. A., & Hsu, R. (2016, May). Nursing students' attitudes toward lesbian, gay, bisexual and transgender Persons: An integrative review. *Nursing Education*

Perspectives, 37(3), 144-152. Retrieved from: https://doi.org/10.1097/01.NEP.0000000000000004

Marucca, A. T., Diaz, D. A., Stockman, C., & Gonzalez, L. (2018, July). Using simulation with nursing students to promote affirmative practice toward the lesbian, gay, bisexual and transgender population: A multisite study. *Nursing Education Perspectives*, *39*(4), 225-229. Retrieved from: https://doi.org/10.1097/01.NEP.0000000000000302

Manzer, D., O'Sullivan, L., & Doucet, S. (2018). Myths, misunderstandings, and missing information: Experiences of nurse practitioners providing primary care to lesbian, gay, bisexual, and transgender patients. *The Canadian Journal of Human Sexuality*, *27*(2), 157–170. Retrieved from: https://doi.org/10.3138/cjhs.2018-0017

McCann, E., & Brown, M. (2018). The inclusion of LGBT+ health issues within undergraduate healthcare education and professional training programmes: A systematic review. *Nurse Education Today*, *64*, 204–214. https://doi.org/10.1016/j.nedt.2018.02.028

Mecklenburg County HIV Disease Update (2019). Mecklenburg County Health Department. Retrieved from: https://www.mecknc.gov/HealthDepartment/HealthStatistics/Documents/2016%20HIV%20Disease%20Data%20Overview%20for%20Mecklenburg%20County.pdf#search=HIV%20rates

Mitchell, K. M., Lee, L., Green, A., & Sykes, J. (2016). The gaps in health care of the LGBT community: Perspectives of nursing students and faculty. *Papers &*

Publications: Interdisciplinary Journal of Undergraduate Research, *5*(5), 21-30. Retrieved from http://digitalcommons.northgeorgia.edu/papersandpubs/vol5/iss1/5

Newport, F. (n.d.). In U.S., Estimate of LGBT population rises to 4.5%. In Gallup. Retrieved March 23, 2019. Retrieved from: https://news.gallup.com/poll/234863/estimate-lgbt-population-rises.aspx?version=print

Prairie, T., Wrye, B., & Murfree, S. (2018). Intersections of Physician Autonomy, Religion, and Health Care When Working With LGBT+ Patients. *Health Promotion Practice, 19*(4), 542–549. Retrieved from: https://doi.org/10.1177/1524839917738974

Qualtrics. (2019). Version 1.3. Provo, Utah, USA. Retrieved from https://www.qualtrics.com

Rutherford, K., McIntyre, J., Daley, A., & Ross, L.E. (2012). Development of expertise in mental health service provision for lesbian, gay, bisexual and transgender communities. *Medical Education, 46*(9), 903-913. Retrieved from: https://doi-org.librarylink.uncc.edu/10.1111/j.1365-2923.2012.04272x

Sabin, J. A., Riskind, R. G., & Nosek, B. A. (2015, September). Health care providers' implicit and explicit attitudes towards lesbian women and gay men. *American Journal of Public Health*, *105*(9), 1831-1841. Retrieved from: https://doi.org/10.2105/AJPH.2015.302631

Sare, M. V., & Ogilvie, L. (2010). *Strategic Planning for Nurses*: *Change management in health care*. Sudbury, Massachusetts: Jones and Bartlett.

Smith, S., & Turell, S. (2017). Perceptions of healthcare experiences: Relational and communicative competencies to improve care for LGBT People. *Journal of Social Issues*, *73*(3), 637–657. Retrieved from: https://doi.org/10.1111/josi.12235

Stillwell, B. S., Fineout-Overholt, E., Melnyk, M. B. & Williamson, M. K. (2010). Evidence-based practice, step by step: Searching for the evidence. *American Journal of Nursing, 110*(5), 41-47. doi: 10.1097/01.NAJ.0000372071.24134.7e.

Stringer, K., Turan, B., McCormick, L., Durojaiye, M., Nyblade, L., Kempt, M., … Turan, J. (2016). HIV-Related stigma among healthcare providers in the deep south. *AIDS and Behavior*, *20*(1), 115–125. Retrieved from: https://doi.org/10.1007/s10461-015-1256-y

Townsend-Chambers, C. (2018, October). Providing culturally competent care for LGBTQ patients: A nurse educator's perspective. In Symposium *Do You really know me?* 3rd Annual LGBTQ Symposium conducted at AHEC, Charlotte, NC.

U.S. Department of Health and Human Services. (n.d.). Healthy People 2020: Lesbian, gay, bisexual, and transgender health. Retrieved from: https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health#25

Whitehead, J., Shaver, J., & Stephenson, R. (2016). Outness, stigma, and primary health care utilization among rural LGBT populations. *PLoS One, 11*(1) Retrieved from: https://dx.doi.org/10.1371/journal.pone.0146139

Appendix A: Letter of Support from MCPH Department Director

MECKLENBURG COUNTY
Public Health

Gibbie Harris, MSPH, BSN
Health Director

(704) 336-4700

May 30, 2019

This letter serves to support Colette Townsend-Chamber's IRB application for her DNP project entitled **"Improving Public Health Clinicians Beliefs and Behaviors with LGBT Individuals"**. Her project will occur at the following facilities who contract with Mecklenburg County Public Health as part of our County PrEP initiative: C.W. Williams Health Center, Eastowne Family Physicians, Ballantyne Family Medical, Quality Comprehensive Health Care, Rosedale Assistance and Opportunities, and Charlotte Community Health Clinic.

We will assist with providing contact information of site managers who will arrange a suitable time to allow the project during staff's regular working hours, and general support of this project.

Please let me know if you have any questions.

Sincerely,

Gibbie Harris, MSPH, BSN
Health Director
Mecklenburg County Public Health

Appendix B: Demographic Questionnaire

Please fill this sheet out to the best of your ability. If you do not wish to provide an answer and/ or do not have an answer to a question, leave it blank. Black out the corresponding bubble of the answer that best describes you:

1. **Age**
   - 18-30 years old
   - 31-40 years old
   - 41-50 years old
   - 51-60 years old
   - 61 years and over

2. **Gender**
   - Male
   - Female
   - Prefer not to answer
   - Self-Identify as: _____(*Please Specify)

3. **Sexual Orientation**
   - Heterosexual
   - Homosexual, Gay or Lesbian
   - Transgender
   - Bisexual
   - Prefer not to answer
   - Other: _____(*Please Specify)

4. **Race/Ethnicity**
   - Hispanic or Latino
   - Black or African-American
   - White or Caucasian
   - Asian/ Native Hawaiian/ Pacific Islander
   - American Indian or Alaska native
   - Prefer not to answer
   - Other: _____(*Please Specify)

5. **What is your current job/role in the clinic?**
   - Physician
   - Nurse practitioner
   - Physician assistant
   - Registered nurse
   - Licensed practical nurse
   - Social worker
   - Receptionist

- Billing staff
- Pharmacist or Pharmacy tech
- Nurse's aide or medical assistant
- Other: _____(*Please Specify)

6. **How many years' experience do you have working in public health?**
   - Less than 1 yr.
   - 1-5 yrs.
   - 6-10 yrs.
   - 10 yrs. or more

7. **Which clinic do you work in?**
   - Answer options redacted

8. **Did you participate in the initial AHEC Diversity 101 training?**
   - Yes
   - No

9. **Do you think it's important to ask patients about *sexual orientation* as part of the written registration form when they register at your clinic?**
   - Yes
   - No
   - Maybe/Not sure

10. **Do you think it's important to ask patients about *gender identify* as part of the written registration form when they register at your clinic?**
    - Yes
    - No
    - Maybe/Not sure

11. **Have you ever provided care to or interacted with an LGBT patient?**
    - Yes
    - No
    - Maybe/Not sure

Appendix C: GAP Scale (original version)

Appendix

GAY AFFIRMATIVE PRACTICE SCALE (GAP)

This questionnaire is designed to measure clinicians' beliefs about treatment with gay and lesbian clients and their behaviors in clinical settings with these clients. There are no right or wrong answers. Please answer every question as honestly as possible.

Please rate how strongly with you agree or disagree with each statement about treatment with gay and lesbian clients on the basis of the following scale:

SA = Strongly agree
A = Agree
N = Neither agree nor disagree
D = Disagree
SD = Strongly disagree

1. In their practice with gay/lesbian clients, practitioners should support the diverse makeup of their families. _____
2. Practitioners should verbalize respect for the lifestyles of gay/lesbian clients. _____
3. Practitioners should make an effort to learn about diversity within the gay/lesbian community. _____
4. Practitioners should be knowledgeable about gay/lesbian resources. _____
5. Practitioners should educate themselves about gay/lesbian lifestyles. _____
6. Practitioners should help gay/lesbian clients develop positive identities as gay/lesbian individuals. _____
7. Practitioners should challenge misinformation about gay/lesbian clients. _____
8. Practitioners should use professional development opportunities to improve their practice with gay/lesbian clients. _____
9. Practitioners should encourage gay/lesbian clients to create networks that support them as gay/lesbian individuals. _____
10. Practitioners should be knowledgeable about issues unique to gay/lesbian couples. _____
11. Practitioners should acquire knowledge necessary for effective practice with gay/lesbian clients. _____
12. Practitioners should work to develop skills necessary for effective practice with gay/lesbian clients. _____
13. Practitioners should work to develop attitudes necessary for effective practice with gay/lesbian clients. _____
14. Practitioners should help clients reduce shame about homosexual feelings. _____
15. Discrimination creates problems that gay/lesbian clients may need to address in treatment. _____

Please rate how frequently you engage in each of the behaviors with gay and lesbian clients on the basis of the following scale:

A = Always
U = Usually
S = Sometimes
R = Rarely
N = Never

16. I help clients reduce shame about homosexual feelings. _____
17. I help gay/lesbian clients address problems created by societal prejudice. _____
18. I inform clients about gay affirmative resources in the community. _____
19. I acknowledge to clients the impact of living in a homophobic society. _____
20. I respond to a client's sexual orientation when it is relevant to treatment. _____
21. I help gay/lesbian clients overcome religious oppression they have experienced based on their sexual orientation. _____
22. I provide interventions that facilitate the safety of gay/lesbian clients. _____
23. I verbalize that a gay/lesbian orientation is as healthy as a heterosexual orientation. _____
24. I demonstrate comfort about gay/lesbian issues to gay/lesbian clients. _____
25. I help clients identify their internalized homophobia. _____
26. I educate myself about gay/lesbian concerns. _____
27. I am open-minded when tailoring treatment for gay/lesbian clients. _____
28. I create a climate that allows for voluntary self-identification by gay/lesbian clients. _____
29. I discuss sexual orientation in a non-threatening manner with clients. _____
30. I facilitate appropriate expression of anger by gay/lesbian clients about oppression they have experienced. _____

Scoring instructions: Using the chart below, please give each answer the indicated number of points. After all questions have been answered, add up the total number points. Higher scores reflect more affirmative practice with gay and lesbian clients.

Items 1–15	Items 16–30	Points
Strongly agree	Always	5
Agree	Usually	4
Neither agree nor disagree	Sometimes	3
Disagree	Rarely	2
Strongly disagree	Never	1

Appendix D: Permission to Use and Revise GAP Scale

On Mon, Oct 22, 2018 at 10:17 PM Catherine Crisp <clcrisp@ualr.edu> wrote:

Colette,

You have my permission to use the GAP Scale. Let me know if you have any questions about it or need anything else.

Best of luck to you in your research.

Catherine

Catherine Crisp, Ph.D., MSW | Associate Professor & MSW Coordinator
School of Social Work | University of Arkansas Little Rock | Ross Hall 402B
(501) 569-3053 | clcrisp@ualr.edu | http://ualr.edu/socialwork | http://catherinecrisp.com/

Re: GAP Inbox ×

Catherine Crisp Mar 24, 2019, 3:46 PM (2 days ago)
to me

Hi Colette,

I'm sorry for the delayed reply. It's spring break here and I've been out of the country. Yes, that is fine as long as you note that the scale has not been validated with those groups and that my original scale did not include those populations. I get this request a lot so others have also added this to the scale questions.

Best,

Catherine

Catherine Crisp, Ph.D., MSW | Associate Professor & MSW Coordinator
School of Social Work | University of Arkansas Little Rock | Ross Hall 402B
(501) 569-3053 | clcrisp@ualr.edu | http://ualr.edu/socialwork | http://catherinecrisp.com/

On Wed, Mar 13, 2019 at 2:31 PM Colette Townsend Chambers <ctowns12@uncc.edu> wrote:

Dear Dr, Crisp,

I hope all is well with you! I saw that you were on sabbatical and hope all is well. Mindful self compassion is something that I encourage my nursing students to do as well. Just today we were discussing PTSD and self care during a simulation of an asthmatic veteran.

I know you probably have received a lot of emails and wanted to follow up with you in case mine got lost in the mix. I'm now ready to submit to IRB. My research is assessing clinicians biases and hoping to improve their beliefs and behaviors with LGBT clients. I'd like your permission to alter the scale just to add the initials B & T for Bisexual and Transgender. Would this be fine with you please?

Thanks again,
Colette

Colette R. Townsend-Chambers, MSN, RN, CHSE
LRC Director/Lecturer
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9201 University City Blvd, Charlotte, NC 28223-001
ctowns12@uncc.edu
704-687-7918
http://nursing.uncc.edu/student-resources/learning-resource-center
" You can't use up creativity.The more you use, the more you have." - Maya Angelou

Appendix E: Revised GAP Scale

UNIQUE CODE: _____

Gay Affirmative Practice Scale (GAP) © 2002 Catherine Crisp, PhD.

(Scale alteration and reprint permission granted by Dr. Crisp March 24, 2019)

This questionnaire is designed to measure beliefs about caring for gay, lesbian, bisexual and transgender (LGBT) clients and their behaviors in clinical settings with these clients.

There are no right or wrong answers. Please answer every question as honestly as possible based on ***your*** role/position.

Practitioners is defined as including but is not is not limited to: certified nurse's aides, medical assistant technicians, billing and office staff, licensed practical nurses, registered nurses, nurse practitioners, clinical social workers, psychologists, pharmacists, pharmacy technicians, physicians' assistants, and physicians.

Please rate how strongly you agree or disagree with each statement about caring for LGBT clients using the following scale :	**Strongly Agree= 5**	**Agree= 4**	**Nether Agree nor**	**Disagree= 2**	**Strongly Disagree= 1**
1. In their practice with LGBT clients, practitioners should support the diverse makeup of their families.					
2. Practitioners should verbalize respect for the lifestyle of LGBT clients.					
3. Practitioners should make an effort to learn about diversity within the LGBT community.					
4. Practitioners should be knowledgeable about LGBT resources.					
5. Practitioners should educate themselves about LGBT lifestyles.					
6. Practitioners should help LGBT clients develop positive identities as LGBT individuals.					
7. Practitioners should challenge misinformation about LGBT clients.					

8. Practitioners should use professional development opportunities to improve their practice with LGBT clients.					
9. Practitioners should encourage LGBT clients to create networks that support them as LGBT individuals.					
10. Practitioners should be knowledgeable about issues unique to LGBT couples.					
11. Practitioners should acquire knowledge necessary for effective practice with LGBT clients.					
12. Practitioners should work to develop skills necessary for effective practice with LGBT clients.					
13. Practitioners should work to develop attitudes necessary for effective practice with LGBT clients.					
14. Practitioners should help clients reduce shame about homosexual feelings.					
15. Discrimination creates problems LGBT clients may need to address in treatment.					

UNIQUE CODE: _____

Please rate how frequently you engage in each of the behaviors with LGBT clients using the following scale:	**Always = 5**	**Usually = 4**	**Sometimes = 3**	**Rarely = 2**	**Never = 1**
16. I help clients reduce shame about homosexual feelings.					
17. I help LGBT clients address problems about societal prejudice.					
18. I inform clients about gay affirmative resources in the community.					

19. I acknowledge to clients the impacts of living in a homophobic society.					
20. I respond to a client's sexual orientation when it is relevant to treatment.					
21. I help LGBT clients overcome religious oppression they have experienced based on their sexual orientation.					
22. I provide interventions that facilitate the safety of LGBT clients.					
23. I verbalize that gay/lesbian orientation is as healthy as heterosexual orientation.					
24. I demonstrate comfort about LGBT issues to LGBT clients.					
25. I help clients identify their internalized homophobia.					
26. I educate myself about LGBT concerns.					
27. I am open-minded when tailoring treatment for LGBT clients.					
28. I create a climate that allows for voluntary self-identification by LGBT clients.					
29. I discuss sexual orientation in a non-threatening manner with clients.					
30. I facilitate appropriate expression of anger by LGBT clients about oppression they have experienced.					

Scoring Instructions: *(not included on participants version of the survey):* Using the chart below, please give each answer the indicated number of points. After all questions have been answered, add up the total points. Higher scores reflect more affirmative practice with LGBT clients.

Items 1-15	Items 16-30	Points
Strongly agree	Always	5
Agree	Usually	4
Neither agree nor Disagree	Sometimes	3
Disagree	Rarely	2
Strongly Disagree	Never	1

Appendix F: Satisfaction Survey

For questions 1-4, please circle the option to indicate your level of satisfaction.

For questions 5-7, please write in any comments you wish to share.

Key: 1=not satisfied at all, 2=somewhat satisfied, 3=mostly satisfied, 4=satisfied, 5=very satisfied

1. What was your **overall** satisfaction with the education presented?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

2. What was your satisfaction with the educational **content** presented?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

3. What was your overall satisfaction with the **presenter** that delivered the education?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

4. Would you recommend the educational class to other public health clinicians?
Yes No Maybe

5. How do you think the education you received could be used when providing care to the LGBT individual?

6. What are your thoughts on the transgender patient simulation video presented?

7. Please share any suggestions that you have for improving this project:

Appendix G: Outline of Project Implementation and Data Collection Procedures

Folder Documents:
Informed Consent
Demographic Questionnaire
GAP Pretest with both Subscales - Beliefs and Behaviors
GAP immediate posttest-Beliefs only
Posttest Satisfaction Survey

1. Verbally explain the project purpose and data collection methods, including approximate length of time (60 mins) for intervention and surveys. Explain to participants how to complete each document in their folder. Allow time for participant questions. Ask participants to sign informed consent.
2. Instruct participants how to create their unique 7-character identification code to be placed on their surveys.
3. Administer pretest: demographic questionnaire and GAP (Beliefs and Behaviors).
4. Present didactic lecture with PowerPoint slides.
5. Participants view standardized patient simulation videos and debrief.
6. Administer immediate posttest: GAP (Beliefs only) and Satisfaction Survey.
7. Conclude intervention for the day and collect color coded folders.
8. Conduct gift card drawing (two $15.00 gift cards awarded that day at each site).
9. Provide flyers with reminders to complete two-month posttest GAP (Beliefs and Behaviors).

After two months:

10. Email two-month posttest: GAP (Beliefs and Behaviors). Data collected via Qualtrics software.
11. Conduct random gift card drawing from emails of third timepoint respondents (two $15.00 gift cards awarded per clinic).
12. Conclude project implementation.