# Evaluation of an LGBTQ Cultural Sensitivity Presentation for Student Registered Nurse Anesthetists

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**Acknowledgements**

The authors would like to thank the following individuals: Dr. Roy Lukman, PhD for his assistance with the statistical analyses of this scholarly project; our Scholarly Project Chair Dr. Steven Fowler, DNP, CRNA, APRN for his encouraging feedback and guidance throughout the scholarly project process; our Scholarly Project Mentor, Joseph Knoll, MSN, APRN, A-GNP-C for his invaluable input and discussion regarding the scholarly project's content and intervention; and our Scholarly Project Reviewer, Dr. Lynelle Callender, DNP, RN, INS for her editorial assistance and constructive critique of the scholarly project.

**Abstract**

The lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) population is a growing, diverse group. The LGBTQ population is at risk for encountering discrimination, stigma, and uneducated and insensitive providers when seeking healthcare, which may potentiate health disparities and negative experiences in the healthcare setting. Research shows the educational curriculum for emerging healthcare providers displays an inadequate and inconsistent inclusion of LGBTQ-related content. However, when LGBTQ-focused educational interventions are incorporated into health profession programs, they are positively received and increase student knowledge regarding the subject. This quality improvement project addressed the lack of LGBTQ-specific content in nurse anesthesia school curriculum to adequately fulfill the multicultural healthcare standards for accreditation. This project implemented a virtual 60-minute LGBTQ Cultural Sensitivity Presentation to two cohorts of student registered nurse anesthetists (SRNAs) to impact their knowledge base regarding the provision of culturally sensitive, evidence-based perioperative care for individuals who identify as LGBTQ. Statistical analysis of pre- and posttests compared score differences to assess for knowledge and perception change and/or retention and utilized Pearson Correlation (r) test to assess if a relationship exists between students' knowledge and perceptions. Low participation yielded results that were not statistically significant and lacked correlation between knowledge and perception change but were suggestive of promising knowledge and perception change and retention. Overall, the presentation was positively received by students. This study's evaluation can serve as evidence-based recommendations on the inclusion of LGBTQ cultural sensitivity education in nurse anesthesia curriculum.

*Keywords*: LGBTQ, cultural sensitivity, nurse anesthesia, curriculum, quality improvement

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**Table 1 – Test Completion Data**

| Test Administered | Test Completed | Response Rate |
|---|---|---|
| Knowledge Pretest | 22 | 91.6% |
| Knowledge Posttest | 17 | 70.8% |
| Knowledge Three-Month Posttest | 11 | 45.8% |
| Perception Pretest | 20 | 83.3% |
| Perception Posttest | 17 | 70.8% |
| Perception Three Month Posttest | 10 | 41.6% |

**Table 2 – Participant Results**

| ID# | Know Pre Score (%) | Know Post Score (%) | Know 3Post Score (%) | Perc Pre Score (%) | Perc Post Score (%) | Perc 3Post Score (%) |
|---|---|---|---|---|---|---|
| 4 | 42.86 | 92.86 | 100.00 | 66.67 | 92.86 | 88.10 |
| 6 | 64.29 | 78.57 | 42.86 | 71.43 | 84.92 | 88.89 |
| 9 | 50.00 | 78.57 | 78.57 | 80.16 | 90.48 | 92.86 |
| 10 | 78.57 | 85.71 | 100.00 | 59.52 | 85.71 | 61.90 |
| 13 | 42.86 | 64.29 | 57.14 | 66.67 | 80.95 | 73.02 |
| 16 | 71.43 | 100.00 | 57.14 | 45.24 | 61.90 | 61.90 |
| 19 | 78.57 | 92.86 | 57.14 | 53.97 | 76.98 | 80.95 |
| 22 | 57.14 | 64.29 | 64.29 | 76.98 | 93.65 | 91.27 |

**Figure 1 – Mean Scores (%) for Knowledge Tests**

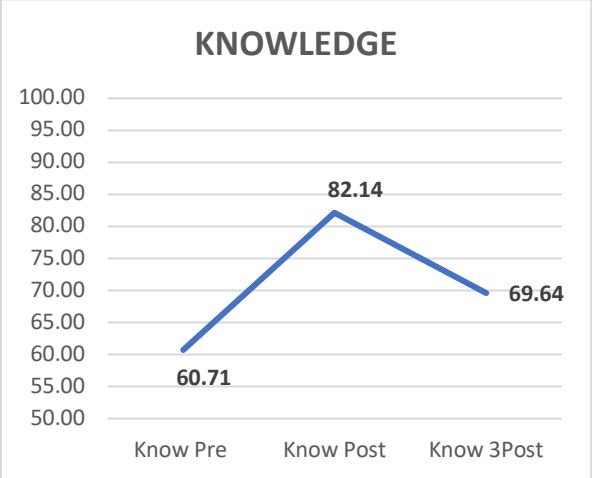


**Figure 2 – Mean Scores (%) for Perception Tests**

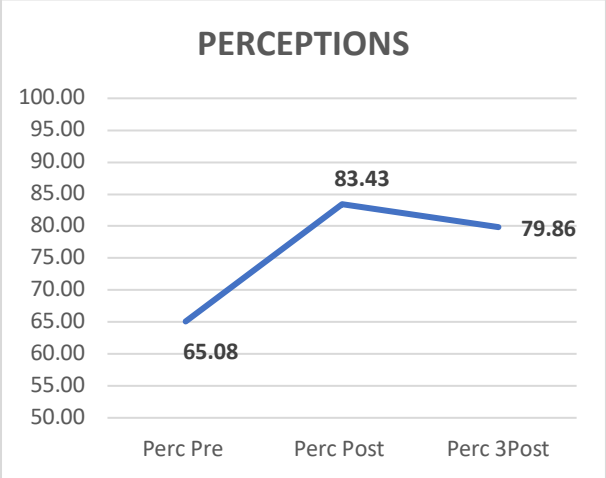

**Table 3 – Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SD | Std. Error Mean | 95% CI Interval of the Difference Lower | Upper | | | |
| Pair 1 | Know Pre & Know Post | -21.42875 | 14.28500 | 5.05051 | -33.37131 | -9.48619 | -4.243 | 7 | .004 |
| Pair 2 | Know Post & Know 3Post | 12.50125 | 22.18158 | 7.84237 | -6.04302 | 31.04552 | 1.594 | 7 | .155 |
| Pair 3 | Perc Pre & Perc Post | -18.35125 | 6.03550 | 2.13387 | -23.39705 | -13.30545 | -8.600 | 7 | .000 |
| Pair 4 | Perc Post & Perc 3Post | 3.57000 | 9.20675 | 3.25508 | -4.12704 | 11.26704 | 1.097 | 7 | .309 |

**Table 4 – Correlations**

| | | Know Pre & Know Post | Know Post & Know 3Post | Perc Pre & Perc Post | Perc Post & Perc 3Post |
|---|---|---|---|---|---|
| Know Pre & Know Post | Pearson Correlation | 1 | .092 | .113 | .216 |
| | Sig. (2-tailed) | | .829 | .790 | .608 |
| | N | 8 | 8 | 8 | 8 |
| Know Post & Know 3Post | Pearson Correlation | .092 | 1 | .295 | -.670 |
| | Sig. (2-tailed) | .829 | | .478 | .069 |
| | N | 8 | 8 | 8 | 8 |
| Perc Pre & Perc Post | Pearson Correlation | .113 | .295 | 1 | -.534 |
| | Sig. (2-tailed) | .790 | .478 | | .173 |
| | N | 8 | 8 | 8 | 8 |
| Perc Post & Perc 3Post | Pearson Correlation | .216 | -.670 | -.534 | 1 |
| | Sig. (2-tailed) | .608 | .069 | .173 | |
| | N | 8 | 8 | 8 | 8 |

## Introduction

Individuals who identify as lesbian, gay, bisexual, transgender, or queer and questioning (LGBTQ) are a growing and diverse population. The LGBTQ population is at risk for encountering discrimination, stigma, and uneducated healthcare providers, leading to delay of seeking medical treatment or potentially negative healthcare experiences (Bakhai, Shields, Barone, Sanders, & Fields, 2016; Salkind, Gishen, Drage, Kavanaugh, & Potts; 2019; Sequeira, Chakraborti, & Panunti, 2012; Yingling, Cotler, & Hughes, 2016). Research shows the educational curriculum for emerging healthcare providers in both medicine and nursing display an inadequate and inconsistent inclusion of LGBTQ-related content (Grosz, Gutierrez, Lui, Chang, & Cole-Kelly, 2017; Sequeira et al., 2012; Taylor, Condry, & Cahill, 2018). With LGBTQ individuals increasing to 4.5% of the US population (Newport, 2017), it is imperative to educate student registered nurse anesthetists (SRNAs) about the delivery of culturally sensitive, evidenced-based perioperative care specific to LGBTQ patients as interaction with this population is expected in their clinical practice. This educational reform can enable SRNAs to deliver compassionate, holistic, and patient-centered care, a fundamental component during the perioperative period (American Association of Nurse Anesthetists, 2018).

## Section One: Problem and PICOT Questions

### Significance & Background of Identified Problem

Risk factors and destructive behaviors discovered in LGBTQ individuals include drug and alcohol use, smoking, higher prevalence of HIV/STDs, and mental health diagnoses (Goldberg, Kuvalanka, Budge, Benz, & Smith, 2019; Sherman, Kauth, Shipherd, & Street, 2014; Quinn et al., 2015; Bakhai et al., 2016). The LGBTQ population faces increased social stigma which creates a barrier to healthcare access and exacerbates health disparities; therefore, the Centers for

Disease Control and Prevention (2019) and Institute of Medicine (2011) have emphasized addressing this population's health needs (Quinn et al., 2015; Goldberg et al., 2019). In fact, it is speculated that the incidence and prevalence of the health risks and needs of LGBTQ patients are underreported due to their fear of discrimination resulting from disclosure (Sherman et al., 2014; Quinn et al., 2015). While many schools and institutions provide generic training sessions about caring for patients of various cultural backgrounds, only a small fraction focus on LGBTQ patients. The Council on Accreditation for Nurse Anesthesia Educational Programs (COA) mandates that nurse anesthesia schools must incorporate multicultural healthcare in their curriculum standards. However, AdventHealth University's nurse anesthesia curriculum lacks LGBTQ-related content, possibly resulting in a knowledge deficit for SRNAs regarding this vulnerable and expanding population. Therefore, the purpose of this scholarly project was to impact SRNA knowledge base regarding the provision of culturally sensitive, evidence-based perioperative care for individuals who identify as LGBTQ through the delivery of a virtual 60-minute presentation.

**PICOT Evidence Review Questions**

Two questions guided the literature review. The first question uncovered the problem of a lack of LGBTQ-related content in educational curriculum: In the LGBTQ population (P), what is the effect of culturally sensitive care specific to the LGBTQ population (I) on their experiences (O) during their interaction with an advanced practice provider (T)? The second question addresses the innovation to the problem: In AdventHealth University student registered nurse anesthetists in cohorts 2022 and 2023 (P), how does a virtual 60-minute LGBTQ Cultural Sensitivity Presentation (I) influence the student's knowledge base, perceptions, and its possible relationship regarding individuals who identify as LGBTQ (O) over a three-month period (T)?

## Section Two: Literature Review

### Search Strategies

The search strategy included the following databases: CINAHL, PubMed, and Academic Search Premier. Key Search Terms included the following: *LGBT* or *LGBTQ*, *health*, *education* or *educational*, and *curriculum*. MeSH Terms included: *sexual and gender minorities*, *education*, and *curriculum*. A total of 444 articles were initially retrieved. The inclusion criteria were studies evaluating LGBTQ educational sessions in healthcare provider programs and published within the last 10 years. Duplicate articles were removed, and research article titles were reviewed for relevancy, reducing the article count to 14. Research article abstracts were reviewed for relevancy, reducing the article count to 12. Exclusion criteria were studies completed in non-English speaking countries. Search limits consisted of English language. The final number of articles meeting the criteria for review were 11.

### GRADE Criteria

The GRADE criteria were utilized to rate the level of evidence found in the literature review of LGBTQ educational sessions for upcoming healthcare providers. To begin, the GRADE level of evidence was low, two (2), due to the mixed quantitative and qualitative studies. Subsequently, review of the methodological flaws, inconsistency, indirectness, imprecision, and publication bias were considered to grade down the evidence. Regarding methodological flaws, convenience sampling and recruitment bias were noted in most studies. Likewise, each study contained a degree of imprecision due to the differing presentation content and audiences which could limit the generalizability of the findings. With these flaws in mind, the evidence was rated down to very low, one (1). Although the overall quality of evidence is very low, the delivery of LGBTQ education and sensitivity training for emerging healthcare providers will most likely

have noteworthy benefits with little to no undesirable effects. Therefore, clinical practice recommendations for LGBTQ education and sensitivity training is high (Bakhai et al., 2016; Cherabie, Nilson, & Houssaayni, 2018; Cooper, Chacko, & Christner, 2018; Grosz et al., 2017; Mayfield et al., 2017; McCann & Brown, 2018; Salkind, et al., 2019; Sawning, Steinbock, Croley, Combs, Shaow, & Toni, 2017; Sequeira et al., 2012; Taylor et al., 2018; Yingling et al., 2016). (See Appendix A – Matrix Tables).

**Literature Review and Synthesis of the Evidence**

The review to follow will cover operational definitions, theoretical frameworks, and a synthesis of relevant literature. Cultural competency and humility are often used interchangeably; however, "cultural competence" has been avoided in this project as it implies an endpoint to learning, distracting from the accepted notion that cultural competency is continually evolving and requires ongoing education on the part of the healthcare provider (Bidell, 2017; Yingling et al., 2017). Instead, "cultural humility" has gained newer recognition as the primary component of appropriate care; it is the "self-evaluation, self-critique, and self-awareness of when a provider is imposing his/her views and values on a patient or community" (Tervalon & Murray-Garcia 1988 as cited in Yingling et al., 2017). "Cultural sensitivity" is the possession of some basic knowledge of and constructive attitudes toward the health/traditions observed among a diverse cultural group (Spector, 2013). Lastly, for the purpose of this paper, "perceptions" will encompass the "self-assessed clinical preparedness, attitudes, and rudimentary knowledge regarding LGBTQ patients."

**Theoretical Frameworks.**

The theoretical frameworks that supported the project are Howell's Intercultural Competence model and the Plan-Do-Study-Act cycle (Howell, 1982; ACT, n.d.). According to Howell, a

learner progresses through four stages: unconscious incompetence, conscious incompetence, conscious competence, and unconscious competence. Individuals in the unconscious incompetence phase are naïve of cultural differences and their own incompetence regarding its profound impact on interactions. To progress to the second stage of conscious incompetence, the individual must become aware of their knowledge deficit. When individuals acquire the education necessary to bridge the gap between ignorance and awareness, they arrive at the conscious competence phase of actively employing culturally sensitive behaviors. These new behaviors will become second nature after repeated practice, thus entering the unconscious competence phase of automatically embodying culturally sensitive behaviors.

The Plan-Do-Study-Act cycle is a quality improvement model credited to Edward Deming and utilized to delineate the necessary steps to develop, implement, test, and evaluate change. The four steps include the following: "plan" incorporates defining the project's objectives and creating the foundation for the intervention; "do" characterizes the execution of the intervention; "study" refers to the analysis of the intervention's results through data collection and outcome review; and "act" allows for modification of the intervention for future application (ACT, n.d.).

**Synthesis of the Evidence.**

A review of the literature was conducted regarding LGBTQ educational interventions for emerging healthcare providers. All studies incorporated quantitative assessment via pre- and posttest design, and a portion included qualitative assessment via student feedback. Three recurring themes surfaced during the review: lack of LGBTQ content in educational curriculum; individualization of content and teaching modalities; and emphasis on improving cultural sensitivity and humility of healthcare providers.

***Lack of LGBTQ content in educational curriculum.***

The initial theme was the apparent lack of LGBTQ education for emerging healthcare providers which has been identified by national and international organizations (US Department of Health and Human Services, 2010; World Health Organization, 2013). In a systematic review of 22 studies that evaluated the incorporation of LGBTQ health issues into educational programs, McCann and Brown (2018) found there is an inadequate and inconsistent inclusion of LGBTQ content in curriculums for student doctors, nurses, and other health professionals. The consequence of this concerning education deficiency is uninformed healthcare providers who are not fully prepared to care for LGBTQ patients, which was echoed by participating students (Salkind et al., 2019; Sequeira et al., 2012; Yingling et al., 2016). Educating healthcare providers on the LGBTQ population places providers in the unique position to alleviate, rather than aggravate, the stigma that LGBTQ individuals face in the healthcare setting.

***Individualization of content and teaching modalities.***

A commonality among the studies was the delivery of content unique to the program's needs and resources. Many of the authors first conducted needs assessments and a curriculum review to identify what LGBTQ content was lacking, which equipped the educators with an outline for their educational session. A wide array of LGBTQ subtopics was covered based on their program's deficits (Bakhai et al., 2016; Cooper et al., 2018; Mayfield et al., 2017; Salkind et al., 2019; Sequeira et al., 2012; Taylor et al., 2018; Yingling, et al., 2016). These findings insinuate that deliberate individualization of an educational session's topic is integral to ensure its applicability to students' future practice area.

A diverse array of educational delivery options was utilized throughout the studies. As anticipated, the popular choice was didactic presentation as this is an inexpensive and effective

way to disseminate information to a potentially large audience (Cherabie et al., 2018; Cooper et al., 2018; Taylor et al., 2018; Sequeira et al., 2012; Grosz et al., 2017; Mayfield et al., 2017). Alternative components of teaching included small group discussion, simulation, case study review, and electronic learning (Grosz et al., 2017; Sequeira et al., 2012; Yingling et al., 2016). Despite blatant differences in teaching modalities, all sessions were positively received by students and considered effective in increasing their LGBTQ knowledge as evidenced by pre/posttest statistical analysis, suggesting that a discrepancy of facility resources will not limit the educator's ability to conduct an efficacious intervention.

***Emphasis on improving cultural sensitivity and humility of healthcare providers.***

The final, and perhaps most important, concept was an emphasis on improving the cultural humility and sensitivity of healthcare providers while increasing LGBTQ knowledge. To provide culturally sensitive care, a healthcare provider must not only be knowledgeable regarding the topic, but also assess their perceptions since this ultimately affects their interactions with the patient (Bakhai et al., 2016; Mayfield et al., 2017; McCann & Brown; 2018; Sequeira et al., 2012; Yingling et al., 2016). An insensitivity or bias from healthcare providers could possibly exacerbate the patient's delay or avoidance of seeking healthcare altogether (Mayfield et al., 2017; Sawning, et al., 2017; Sequeira et al., 2012; Yingling et al., 2016). With nurse anesthetists providing over 49 million anesthetics to patients each year in the US, they undoubtedly interact with patients of diverse backgrounds (AANA, 2019). Therefore, the concept of cultural humility (self-awareness, self-critique, and self-evaluation) coupled with a foundational LGBTQ knowledge is imperative so that they can display the nonjudgmental and welcoming attitude which all patients deserve (Bakhai et al., 2016; Yingling et al., 2016).

## Section Three: Methodology

### Project Aims

The aim of this scholarly project was to impact the knowledge base of SRNAs at AHU regarding the provision of culturally sensitive, evidence-based perioperative care for patients who identify as LGBTQ. Additionally, it aimed to assess if there is a relationship between changes in SRNA knowledge base and perceptions concerning provision of care for LGBTQ patients. The objectives are delineated below:

1. Determine if there is a difference between pre- and posttest knowledge and the retention of that knowledge at three-months regarding the provision of culturally sensitive, evidence-based perioperative care for patients who identify as LGBTQ within the AHU 2022 and 2023 DNAP cohorts after attending a virtual 60-minute presentation by September 2021.
2. Determine if there is a difference between pretest, posttest, and 3-month posttest results regarding the SRNAs perceptions concerning patients who identify as LGBTQ within the AHU 2022 and 2023 DNAP cohorts after attending a virtual 60-minute presentation by September 2021.
3. Determine if there is a relationship between knowledge score differences and perception score differences regarding patients who identify as LGBTQ within the AHU 2022 and 2023 DNAP cohorts after attending a virtual 60-minute presentation by September 2021.
4. Provide evidence-based recommendations regarding the implementation of LGBTQ-related education content in nurse anesthesia school curriculum after analysis of the scholarly project's results.

## Methods

### Plan.

This quality improvement project was a quantitative study with a pre- and posttest design centered around an educational intervention as this has been shown in the literature to be effective. The educational presentation utilized evidence-based recommendations compiled from scholarly journal articles, professional organizations, and LGBTQ associations. To test knowledge, a 14-question multiple choice test related to the presentation's content was created and underwent four rounds of face validation at AHU; this included cohort peers, an end user, DNAP faculty, and AHU faculty in a stepwise fashion. To test perceptions, the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS) was used with permission from the original author who completed a validation study to confirm validity and reliability (Bidell, 2017). (See Appendix B – LGBTQ Cultural Sensitivity Presentation, Appendix C – Knowledge Test, Appendix D – LGBT-DOCSS, and Appendix E – LGBT-DOCSS Author Approval).

Due to the COVID-19 pandemic, the setting was via Zoom video conference for a 60-minute presentation with convenience sampling of AHU SRNAs in cohorts 2022 and 2023, which ultimately was comprised of 24 participants. Inclusion criteria were SRNAs in cohorts 2022 or 2023, and exclusion criteria were the students of cohort 2022 conducting this study. Recruitment was conducted by the student investigators during Spring Trimester of 2021 via email two-months, one-month, and two-weeks before the presentation. The emails included an informative pamphlet about the study and a participation agreement form for participants. Participants were able to contact the student investigators with questions. Email reminders were sent to participants

one week before presentation. (See Appendix F – Participation Agreement Form and Appendix G – Recruitment Materials).

**Do.**

Initial electronic knowledge and perception pretests (SurveyMonkey link sent via email) were delivered to the individuals who completed the participation agreement form. Participants were instructed to create a personal alphanumeric identifier for their tests to de-identify themselves but allow investigators to track their test results. Next, the student investigators delivered the 60-minute virtual Zoom presentation. Identical electronic posttests were delivered immediately after the presentation and three months after the presentation to those who attended. The only individuals with access to the anonymous electronic tests were the student investigators.

**Study.**

Test results were compiled, grouped via participant's anonymous identifier, and entered in Excel for delivery to AHU statistician Dr. Roy Lukman for statistical analysis via Statistical Product and Service Solutions (SPSS). Raw data was stored on a password-protected Microsoft Teams account that only the two student investigators and the Scholarly Project Chair had access to with automatic deletion by the AHU IT department 7 years after IRB determination. Regarding the knowledge test scores, ANOVA for Repeated Measurements was planned across test intervals to assess for a knowledge change and retention (objective #1). Regarding the perception test scores, ANOVA for Repeated Measurements was planned across test intervals to assess for a perception change and retention (objective #2). To investigate for a potential relationship between a change in knowledge and change in perception, the difference in pretest scores and three-month posttest scores was calculated for both knowledge and perception scores for each participant to assess for correlation via a Pearson r test (objective #3).

### Act.

Statistical analyses determined if the educational intervention was effective in impacting the knowledge base, perceptions, and its possible relationship of AHU SRNAs regarding the provision of culturally sensitive, evidence-based perioperative care for patients who identify as LGBTQ. This project's results can serve as evidence-based recommendations to assist with the decision to incorporate LGBTQ-related content into nurse anesthesia curriculum (objective #4).

## Planning and Procedures

### Planning.

Key players identified for this scholarly project included professionals who serve the patient population (a primary care APRN and a leader at a LGBTQ community resource center), both of whom provided valuable input for selecting and organizing the content of the educational presentation. Since AHU DNAP program does not include LGBTQ content, a needs assessment for specific content gaps was not applicable. COVID-19 social distancing and remote learning guidelines negated the need to obtain buy-in from outside, tangible resources since the project was completed entirely online. Plans for promoting the presentation to the two cohorts included email announcements from the student investigators followed by reminders in the weeks leading up to the presentation. The anticipated costs for the project included an upgraded survey service to facilitate appropriate data collecting and result tracking. (See Appendix H – Budget).

### Implementation.

In the fall of 2020, scholarly project proposal to AHU's Scientific Review Board (SRC) and AH's Institutional Review Board (IRB) occurred with the determination that, although the scholarly project proposal received "Approval with Recommendations" by SRC's standards, the quality improvement project was not research. (See Appendix I – SRC Approval and IRB

Determination). Upon receipt of IRB determination, the recruitment emails were sent with recruiting materials and participation agreement form to SRNAs in cohorts of 2022 and 2023. Initial knowledge and perception pretests were delivered to the individuals who completed the participation agreement form, followed by delivery of the virtual 60-minute LGBTQ Cultural Sensitivity Presentation. Identical knowledge and perception posttests were delivered immediately after and three months after the presentation to those who attended. During the summer trimester of 2021, anonymous test results were reviewed from SurveyMonkey, and raw data compiled into Microsoft Excel for delivery to Dr. Roy Lukman for statistical analysis.

**Barriers and Facilitators.**

Barriers to the project included the voluntary nature of attendance and completion of tests as well as the busyness of SRNA's clinical and academic schedules that most likely interfered with motivation to attend and complete testing. Facilitators to the project included the easily accessible, online platform of the presentation and tests.

**Procedures to Sustain.**

In order to sustain the project, a convenient time for both cohorts was selected. Student attendance was encouraged via email announcements. After statistical analysis of the project's results, we provided evidence-based recommendations regarding continuing this educational presentation for future cohorts.

**Timeline.**

(See Appendix J – Final Project Timeline).

## Section Four: Results

The final sample included 24 participants from a population size of 53 from cohorts 2022 and 2023, resulting in a participation rate of 45%. Regarding the knowledge tests, 22 completed the

knowledge pretest (91.6%), 17 completed the knowledge posttest (70.8%), and 11 completed the knowledge 3-month posttest (45.8%). Regarding the perception tests, 20 completed the perception pretest (83.3%), 17 completed the perception posttest (70.8%), and 10 completed the perception 3-month posttest (41.6%). See Table 1 – Test Completion Data. After reviewing test results according to their anonymous alphanumeric identifiers, a total of 8 participants were found to have completed all 6 tests and could be included in the analysis. The remaining 16 participants were excluded from the analysis due to the lack of test completion. See Table 2 – Participant Results. Mean percentage scores for all six tests were calculated: 60.7% for knowledge pretest, 82.1% for knowledge posttest, 69.6% for knowledge 3-month posttest, 65.1% for perception pretest, 83.4% for perception posttest, and 79.9% for perception 3-month posttest. See Figure 1 – Mean Scores (%) for Knowledge Tests and Figure 2 – Mean Scores (%) for Perception Tests.

Regarding project objectives #1 and #2, planned ANOVA for Repeated Measures could not be used due to small sample size. Instead, paired sample comparisons determined if there was a change or retention in knowledge or perception. Scores from knowledge pretest and posttest were analyzed: $t = -4.243$ and $p = 0.004$. Scores from knowledge posttest and 3-month posttest were analyzed: $t = 1.594$ and $p = 0.155$. Scores from perception pretest and posttest were analyzed: $t = -8.600$ and $p = <0.001$. Scores from perception posttest and 3-month posttest were analyzed: $t = 1.097$ and $p = 0.309$. See Table 3 – Paired Samples Test. Regarding project objective #3, a Pearson r correlation test was used to determine if a relationship exists between a change in knowledge and change in perception across pretest/posttest and posttest/3-month posttest. Analysis for a relationship between knowledge and perception pretest/posttest found r =

0.113 and p = 0.790. Analysis for a relationship between knowledge and perception posttest/3-month posttest found r = -0.670 and p = 0.069. See Table 4 – Correlations.

## Section Five: Discussion and Implications

### Discussion

The lack of LGBTQ-related content for incoming healthcare providers is an apparent problem in nurse anesthesia school curriculum. Since COA calls for fulfillment of multicultural competency components in their nurse anesthesia program accreditation standards, this project aimed to impact SRNA knowledge base regarding the provision of culturally sensitive, evidence-based perioperative care for individuals who identify as LGBTQ. Regarding the results of objective #1, there appeared to be a significant increase in the average percentage scores between knowledge pretest and knowledge posttest ($t = -4.243$, $p = .004$) and lack of significant difference between knowledge posttest and knowledge 3-month posttest ($t = 1.594$, $p = .155$). The significant increase between knowledge pretest and posttest suggests that learning took place and the lack of significant difference between knowledge posttest and knowledge 3-month posttest suggests that retention took place. Regarding the results of objective #2, there appeared to be a significant increase in the average percentage scores between perceptions pretest and perception posttest ($t = -8.600$, $p < .001$) and lack of significant difference between perceptions posttest and perceptions 3-month posttest ($t = 1.097$, $p = .309$). The significant increase between perception pretest and posttest suggests that learning took place and the lack of significant difference between perception posttest and perception 3-month posttest suggests that retention took place. However, due to the large group mortality (incomplete data), these results are simply suggestions and possible trends. Unfortunately, no true conclusion can be drawn.

Regarding the results of objective #3, there is no significant relationship between the difference percentages of knowledge and perceptions pretest and posttest ($r = .113$, $p = .790$) or knowledge and perceptions posttest and 3-month posttest ($r = -.670$, $p = .069$). Therefore, there is no correlation between a change in knowledge and change in perception. Due to the surprisingly small, inappropriate sample size, all results and conclusions could easily be different with the appropriate sample size. Therefore, only simple suggestions can be obtained from these observations.

**Recommendations**

After studying the statistical analyses and results of this project, action must be taken to fulfill the quality improvement PDSA cycle and this project's objective #4. Although there was a lack of adequate participation and statistically significant evidence, the project itself was well-received by the SRNAs who participated, supporting future implementation and/or revisions of this presentation into nurse anesthesia school curriculum. Additionally, there are virtually no drawbacks to encouraging a well-rounded, culturally sensitive healthcare provider. The challenge of sustainability and adequate participation could be overcome by transitioning this project's content into a required learning module for an SRNA multicultural professionalism lecture. If not required, student participation could be increased by providing incentive(s), which unfortunately could not be incorporated for this study's participants. These changes could easily be implemented into a nurse anesthesia school's doctoral curriculum track; therefore, further research with these recommendations should be conducted on this topic.

**Applicability to Practice/Contribution to Professional Growth**

Literature evidence has shown that substantial variability exists regarding LGBTQ-related content in healthcare providers' school curriculum. The significant amount of student feedback

regarding their lack of knowledge and preparedness for caring for LGBTQ patients supports a change in healthcare provider education to foster cultural sensitivity and humility (Bakhai, et al., 2016; Grosz et al., 2017; Salkin et al., 2019; Sequeira et al., 2012; Taylor et al., 2018; Yingling et al., 2016). The LGBTQ community is a fluid patient population with a growing number of subpopulations; therefore, this scholarly project influenced SRNA's awareness of the LGBTQ community and impacted their knowledge base and perceptions to promote culturally sensitive care. Education directed at SRNAs before entry into practice can impact the profession by upholding the AANA's Code of Ethics, by respecting the patient's rights, values, customs, cultures, and beliefs during the perioperative period (AANA, 2018).

**Limitations**

Limitations of the scholarly project included the following: a small sample size; convenience sampling; generalizability concerns; and lack of a true control group. Small sample size prevented the planned use of ANOVA for Repeated Measures to assess for knowledge and perception change and/or retention. While the knowledge test was face validated by members and faculty at AHU, it is not a reliable, validated tool. However, for the perceptions test, a reliable, validated tool (LGBT-DOCSS) was used. Participants may also have harbored bias toward this topic which could be a confounding variable, compromising their desire to learn. Lastly, due to the time restraint of the presentation, an in-depth focus on specific subpopulations within the LGBTQ community was not possible.

**Conclusions**

The profession of nursing and advanced practice nursing centers around the holistic values of caring for patients and respecting their inherent dignity, worth, beliefs, values, and uniqueness (AANA, 2018; American Nurses Association, 2015). As future advanced practice registered

nurses, SRNAs are representatives of this compassionate and empathetic profession. Ensuring that they are entering the profession with a culturally sensitive attitude may help lessen the burden that many LGBTQ patients face in the perioperative setting. This project assisted in the required quality improvement exercises that nurse anesthesia school curriculum should undergo. In this way, nursing values are upheld, and accreditation standards are fulfilled, supporting holistic care to patients of every background and lifestyle.

## Section Six: Dissemination

The findings of this scholarly project will be disseminated during spring trimester 2022 at AdventHealth University (AHU). The local dissemination requirements for the degree of Doctor of Nurse Anesthesia Practice include oral and poster presentation in an online, interactive format conducive to remote learning. Additionally, the results of the scholarly project will be shared with scholarly project committee members.

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Appendix A
Matrix Tables

| **References** | | | | | |
|---|---|---|---|---|---|
| Bakhai, N., Shields, R., Barone, M., Sanders, R., & Fields, E. (2016). An active learning module teaching advanced communication skills to care for sexual minority youth in clinical medical education. *MedEdPORTAL, 12,* doi: 10.15766/mep_2374-8265.10449<br>Yingling, C.T., Cotler, K., & Hughes, T.L. (2016). Building nurses' capacity to address health inequities: Incorporating lesbian, gay, bisexual, and transgender health content in a family nurse practitioner programme. *Journal of Clinical Nursing, 26*, 2807-2817, doi: 10.1111/jocn.13707 | | | | | |
| **Purpose** | **Variables** | **Setting/Subjects** | **Measurement and Instruments** | **Results** | **Evidence Quality** |
| **Study One:**<br>Implementation of a session to address communication skills critical to caring for SGM youth<br><br>**Study Two:**<br>Development and implementation of LGBT learning module for a family nurse practitioner program<br><br>**Design**<br>**Study One:** Quantitative analysis of participant responses to pretest/posttest questions regarding self-reported knowledge, comfort, and sense of preparedness<br>**Study Two:** Analysis of student feedback upon completion of learning module/in-class discussions | **Study One:**<br>Primary outcome: Knowledge, comfort, and sense of preparedness regarding counseling adolescents questioning SO<br><br>Secondary outcome: Flipped classroom teaching modality, small-groups, peer-to-peer, active learning module<br><br>**Study Two:**<br>Primary outcome: Student feedback regarding the learning module and incorporation of LGBTQ-related content in the FNP program<br><br>Secondary outcome: Self-paced learning module on various LGBTQ topics; class discussions; case study discussions | **Study One:**<br>Setting: Johns Hopkins University School of Medicine curriculum<br><br>Subjects: 42 third- and fourth-year medical learners<br><br>**Study Two:**<br>Setting: Family Nurse Practitioner programs part of a large public university in a Midwestern US state<br><br>Subjects: students enrolled in the FNP program across five campuses; exact number of students not stated | **Study One:** pre-survey and post-survey with Likert scale responses regarding comfort, self-efficacy, knowledge, and sense of preparedness; analyzed with<br><br>**Study Two:** student feedback was collected regarding the learning modules and class/case study discussions; however, no thematic analysis or instruments were utilized for review; rather, it was informal feedback | **Study One:** learners felt more prepared/ comfortable for conversations and aware of importance of SGM health concerns; significant self-reported improvement in comfort, sense of preparedness, and knowledge<br>**Study Two:** students enjoyed self-paced module content and class/case studies; faculty reported positive feedback but concerns regarding their lack of LGBTQ knowledge<br><br>**Implications**<br>**Study One:** should be implemented for other med students to counsel SGM patients<br>**Study Two:** must educate nurses re: LGBTQ-specific competency since they are the vast majority of healthcare workforce | **Study One**<br>**Methodological flaws:** convenience sample; recruitment bias; not all participated in pre and post surveys<br>**Inconsistency:** none<br>**Indirectness:** none; all received the same surveys<br>**Imprecision:** limited generalizability d/t pre-requisite module to complete beforehand and homogenous sample<br>**Publication bias:** none<br><br>**Study Two**<br>**Methodological flaws:** did not specify design for feedback or participants; convenience sampling<br>**Inconsistency:** none<br>**Indirectness:** none<br>**Imprecision:** generalizability since it was only Midwestern US FNP students<br>**Publication bias:** none |

<table>
<tr><td colspan="6">References<br>
Salkind, J., Gishen, F., Drage, G., Kavanagh, J., & Potts, H.W.W. (2019). LGBT+ health teaching within the undergraduate medical curriculum. International Journal of Environmental Research and Public Health, 16(2305), 1-9, doi: 10.3390/ijerph16132305<br>
Sawning, S., Steinbock, S., Croley, R., Combs, R., Shaw, A., Ganzel, T. (2017). A first step in addressing medical education curriculum gaps in lesbian-, gay-, bisexual-, and transgender-related content: The University of Louisville lesbian, gay, bisexual, and transgender health certificate program. Education for health, 30(2), 108-114, doi: 10.4103/efh.EfH_79_16.</td></tr>
<tr><td>Purpose</td><td>Variables</td><td>Setting/Subjects</td><td>Measurement and Instruments</td><td>Results</td><td>Evidence Quality</td></tr>
<tr><td>Study One:<br>Introduction of a compulsory teaching program for medical students to explore/ understand the impact of prejudice and discrimination for LGBT patients<br><br>Study Two: Enabling physicians to provide quality LGBT healthcare using interdisciplinary approach</td><td rowspan="2">Study One:<br>Primary outcome: Confidence using appropriate terminology for SOGI, assessment of LGBT patients<br><br>Secondary outcome: Lecture regarding LGBT knowledge, seminar regarding case studies, and transgender guest speaker<br><br>Study Two:<br>Primary outcome: Attitude toward and knowledge regarding LGBT patients<br><br>Secondary outcome: Extracurricular sessions (11 total) covering a wide variety of LGBT topics</td><td rowspan="2">Study One:<br>Setting: London-based medical school from 2016 to 2019<br><br>Subjects: medical students; 433 for the pre-session survey and 541 for the post-session survey<br><br>Study Two:<br>Setting: University of Louisville health science students<br><br>Subjects: 39 medical students completed the pretest/posttest results for the study (although 102 students attended and completed the certification program)</td><td rowspan="2">Study One: Pre- and post-session surveys with Likert-scale responses to assess views on the importance of teaching, confidence in language re: SOGI and completing assessment/ hx for LGBT patients; option for free-text comment for session feedback from student<br><br>Study Two: knowledge survey with 11 items + attitude survey with 16 items for a total knowledge score assessed with paired sample t-test and Cohen’s D test to assess effect size; free-text comment was included for optional student feedback</td><td>Study One: significant findings that majority reported increased confidence with SOGI language and assessing/ hx-taking of LGBT patients; majority of free-text comments were positive<br>Study Two: significant increase in post-session knowledge and improved attitudes regarding LGBT content; positive feedback from students in free-text analysis</td><td rowspan="2">Study One<br>Methodological flaws: convenience sample; recruitment bias; not all participated in pre/post surveys<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: limited generalizability d/t low attendance rate; unable to assess for selection bias<br>Publication bias: none<br><br>Study Two<br>Methodological flaws: convenience sample; not all participated in pretest/posttest so they could not be used in paired analysis<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: limited generalizability d/t sample at one university; only medical student surveys included<br>Publication bias: none</td></tr>
<tr><td>Design<br>Study One:<br>Quantitative analysis of participant responses on pre- and post-session surveys with Likert-scale responses<br>Study Two:<br>Quantitative analysis of pretest/posttest regarding attitude and knowledge outcomes</td><td>Implications<br>Study One:<br>incorporation of LGBTQ scenarios into student exams; need further research to examine if the increased student confidence improves LGBTQ pt experiences<br>Study Two: must train faculty, residents, other staff, too; should adapt certificate program for other programs</td></tr>
</table>

**References**

Taylor, A.K., Condry, H., & Cahill, D. (2018). Implementation of teaching on LGBT health care. *The Clinical Teacher, 15*(2), 141-144. doi: 10.1111/tct.12647

Cherabie, J., Nilson, K., Houssaayni, S. (2018). Transgender health medical education intervention and its effects on beliefs, attitudes, comfort, and knowledge. *Kansas Journal of Medicine, 11*(4), 106-109.

| Purpose | Variables | Setting/Subjects | Measurement and Instruments | Results | Evidence Quality |
|---|---|---|---|---|---|
| **Study One:** Implementation of a lecture and workshop regarding legislation, transgender health, health inequalities, and gender dysphoria with feedback from students **Study Two:** Execution of a one-hour didactic lecture on transgender health for faculty, medical students, and residents | **Study One:** Primary outcome: Student perception of competency for caring for LGBT patients and consultation skills<br><br>Secondary outcome: one-hour lecture/one-hour workshop regarding legislation, transgender health, health inequalities, and gender dysphoria with feedback from students<br><br>**Study Two:** Primary outcome: Attitudes, comfort level, and knowledge regarding transgender health issues<br><br>Secondary outcome: One-hour didactic lecture presented by transgender persons | **Study One:** Setting: University of Bristol in Avon, UK<br><br>Subjects: 350 year-2 and year-3 students medical students between 2012-2015<br><br>**Study Two:** Setting: University of Kansas School of Medicine-Wichita<br><br>Subjects: 115 individuals (faculty, residents, medical students) completed both pre-/post-intervention surveys; 18 individuals of the 115 completed the 90-day post-intervention survey | **Study One:** Evaluation forms that included rating scales (did not call Likert scales) for patients' perceived competency levels with free-text comments derived from framework analysis<br><br>**Study Two:** Survey questions were scored on 5-point Likert scale and analyzed with paired sample t-tests to compare population means and significant changes pre-/post-intervention (SPSS version 24.0 and Microsoft Excel); qualitative analysis of an open-ended question for practice implications | **Study One:** 69% rated 1-2 (low competency) pre-intervention and improved to 3-4 (high competency) post-intervention; free-text analysis revealed perceptions that intervention was useful, applicable, and would help improve practice **Study Two:** No significant change in beliefs; attitudes, comfort, and knowledge regarding transgender care showed significant change | **Study One Methodological flaws:** loss to f/u for some students; convenience sample; recruitment bias; did not explicitly state design **Inconsistency:** none **Indirectness:** none **Imprecision:** none **Publication bias:** none<br><br>**Study Two Methodological flaws:** convenience sample **Inconsistency:** none **Indirectness:** none **Imprecision:** limited generalizability d/t lack of certain specialties **Publication bias:** none |
| **Design** | | | | **Implications** | |
| **Study One:** Quantitative/qualitative framework analysis of free-text responses **Study Two:** Mixed methods of quantitative (pre-/post-intervention surveys and 90-day survey) and qualitative analysis (one free-text question asking practice implications) | | | | **Study One:** LGBT education should be included in all medical professionals' school curricula **Study Two:** Improved LGBT education for HCPs will improve care provided to LGBT patients; further research should be aimed at specific specialties | |

<table>
<tr><th colspan="6">References</th></tr>
<tr><td colspan="6">Cooper, M.B., Chacko, M. & Christopher, J. (2018). Incorporating LGBT health in an undergraduate medical education curriculum through the construct of social determinants of health. MedEdPORTAL: The Journal of Teaching and Learning Resources, 14, 10781. doi: 10.15766/mep_2374-8265.10781<br>Mayfield, J. J., Ball, E. M., Tillery, K. A., Crandall, C., Dexter, J., Winer, J. M., Bosshardt, Z. M., Welch, J. H., Dolan, E., Fancovic, E. R., Nañez, A. I., De May, H., Finlay, E., Lee, S. M., Streed, C. G., & Ashraf, K. (2017). Beyond men, women, or both: A comprehensive, LGBTQ-inclusive, implicit-bias-aware, standardized-patient-based sexual history taking curriculum. MedEdPORTAL: the journal of teaching and learning resources, 13, 10634.</td></tr>
<tr><th>Purpose</th><th>Variables</th><th>Setting/Subjects</th><th>Measurement and Instruments</th><th>Results</th><th>Evidence Quality</th></tr>
<tr><td>Study One: Using a lecture to increase students' knowledge of how social determinants impact health of LGBTQ patients<br>Study Two: Utilization of a 3-hr module including large- and small-group sessions of standardized patient encounters for med students about LGBTQ sexual history taking</td><td>Study One:<br>Primary outcome: Students' knowledge regarding LGBT health and how it is affected by social determinants<br><br>Secondary outcome: one-hour didactic lecture regarding the social determinants (race, socioeconomic status, gender, and sexual/gender minority status) affecting LGBT patients' health<br><br>Study Two:<br>Primary outcome: preparation of medical students to take a sexual history<br><br>Secondary outcome: implementation of large-group lecture presentation and standardized patient encounter small-group sessions</td><td>Study One:<br>Setting: unspecified graduate medical school<br><br>Subjects: 180 third-year medical students at lecture with 63 respondents<br><br>Study Two:<br>Setting: unspecified graduate medical institution<br><br>Subjects: 84 second-year doctoral students</td><td>Study One:<br>Retrospective pre-/post-lecture surveys for students to rate their abilities to fulfill lecture objectives via a Likert scale for each objective with analysis through paired t-test using SPSS; one open-ended question asking for student feedback on lecture itself<br><br>Study Two:<br>Questionnaire to evaluate assessment statements via Likert scales that were analyzed by Wilcoxon signed rank test; open-ended post-participation comments</td><td>Study One:<br>Statistically significant changes found re: mean rating of knowledge after lecture; open-ended question revealed "overall appreciation" for lecture<br>Study Two: student qualitative evaluations re: curriculum were positive; statistically significant increase from post-session surveys of self-reported comfort in ability to take sexual hx for pts</td><td rowspan="3">Study One<br>Methodological flaws: convenience sample; did not explicitly state mixed methods<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: inability to directly measure students' application of objectives, had to rely on self-perceived report<br>Publication bias: none<br><br>Study Two<br>Methodological flaws: convenience sample, no baseline assessment, implicit bias, lack of advanced and heterogenous standardized scenarios<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: none<br>Publication bias: none</td></tr>
<tr><th>Design</th><th colspan="3"></th><th>Implications</th></tr>
<tr><td>Study One: Mixed methods of quantitative (responses in retrospective pre-/post-lecture survey evaluations) and qualitative (students' feedback on the lecture)<br>Study Two: Mixed methods of qualitative questionnaire with free-text and Likert scales to quantitatively evaluate curriculum</td><td colspan="3"></td><td>Study One: Social determinants should be integrated into LGBT HCP educational delivery<br>Study Two: Authors believe educational module about sexual history assessment is ideal for preclinical medical students early in clerkship year</td></tr>
</table>

<table>
<tr><th colspan="6">References</th></tr>
<tr><td colspan="6">Sequeira, G., Chakraborti, C., & Panunti, B. (2012). Integrating lesbian, gay, bisexual, and transgender (LGBT) content into undergraduate medical school curricula: A qualitative study. The Ochsner Journal, 12(4), 379-382.<br>Grosz, A.M., Gutierrez, D., Lui, A.A., Chang, J.J., Cole-Kelly, K., & Ng, H. (2017). A student-led introduction to lesbian, gay, bisexual, and transgender for first-year medical students. Family Medicine, 49(1), 52.56.</td></tr>
<tr><th>Purpose</th><th>Variables</th><th>Setting/Subjects</th><th>Measurement and Instruments</th><th>Results</th><th>Evidence Quality</th></tr>
<tr>
<td>Study One:<br>Gauge medical students' knowledge, interest, and perception of relevance of LGBT-related educational sessions<br>Study Two:<br>Assess effectiveness of second/fourth year student-led LGBT educational workshop on first year students' LGBT health knowledge and confidence in carung for LGBT patients<br>Design<br>Study One:<br>Qualitative study utilizing questionnaires to assess knowledge, interest, and perception of relevance of LGBT-related educational sessions<br>Study Two:<br>Quantitative analysis of pre/posttest assessments that were answered via Likert scales</td>
<td>Study One:<br>Primary outcome: Students' knowledge related to LGBT; students' perception of relevance of LGBT-related educational session<br><br>Secondary outcome: Presentation of 4 LGBT-related educational sessions<br><br>Study Two:<br>Primary outcome: first year students' knowledge of LGBT health and confidence in providing care<br><br>Secondary outcome: Two-hour workshop that included student-delivered presentation, patient panel, and small-group discussion</td>
<td>Study One:<br>Setting: Tulane University School of Medicine<br><br>Subjects: 35 medical students at session 1; 39 medical students at session 2; 30 medical students at session 3<br><br>Study Two:<br>Setting: Case Western Reserve University School of Medicine<br><br>Subjects: 167 first year medical students</td>
<td>Study One:<br>Surveys after the educational sessions that included free text answers and yes/no questions; examined with thematic analysis to identify themes among student answers<br><br>Study Two:<br>Online assessments answered via Likert scales, T/F, multiple choice, and free-text analysis;<br>multiple choice and T/F were analyzed with McNemar's test;<br>free-text answers were sorted into three categories and analyzed with Pearson's chi-squared;<br>Likert scales were analyzed with pair t-tests or one sample t-tests depending on applicability of question</td>
<td>Study One: 82% successfully articulated proper interviewing for LGBT patient; themes were agreement of lack of LGBT education, applicable to students, and relevant material to incorporate<br>Study Two: 73 completed and paired assessments showed significant increase in knowledge of LGBT terms and confidence of providing care to LGBT patients<br>Implications<br>Study One: LGBT content is underrepresented and is meaningful to/valued by medical students<br>Study Two: Early student-led interventions can increase first year medical students' knowledge/confidence regarding LGBT</td>
<td>Study One:<br>Methodological flaws: convenience sample, loss to f/u (optional attendance and surveys)<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: small sample size at one university limits generalizability<br>Publication bias: none<br><br>Study Two:<br>Methodological flaws: convenience sample, selection bias, loss to f/u (optional attendance and surveys), lack of longitudinal assessment<br>Inconsistency: none<br>Indirectness: none<br>Imprecision: small sample size at one university limits generalizability<br>Publication bias: none</td>
</tr>
</table>

Appendix B
LGBTQ Cultural Sensitivity Presentation

# LGBTQ Cultural Sensitivity

Sarah Brumbaugh-Baker and Hailey Lowery

## Objectives

At the end of the presentation, the SRNA will be able to…

- Distinguish cultural competency, humility, and sensitivity
- Define common terminology related to the LGBTQ population
- Identify healthcare barriers encountered by LGBTQ patients
- Characterize health risks in the LGBTQ population
- Describe strategies for creating a welcoming and inclusive environment for LGBTQ patients
- Demonstrate appropriate communication techniques for interactions with LGBTQ patients
- Identify perioperative considerations for the transgender patient

## Cultural Competence Model

- Josepha Campinha-Bacote's model of cultural competence in healthcare delivery:
  - Cultural Awareness
  - Cultural Knowledge
  - Cultural Skill
  - Cultural Encounters
  - Cultural Desire


- Most popular model that has been applied to research, psychiatry/mental health, rehabilitation, case management, community and home care services, and **healthcare provider (HCP) education** (Campinha-Bacote, 2002)

## Cultural ~~Competence~~

- Newer thinking
  - Cultural "competence" can imply an endpoint to learning, distracting from the current accepted notion that cultural competency is continually evolving and requires ongoing education on the part of the HCP (Bidell, 2017; Yingling et al., 2017)
  - Many have transitioned to the concept/terminology of **cultural humility** and **cultural sensitivity**, rather than competence, as the foundation for respectful healthcare encounters.

## A Transition to Cultural Humility and Sensitivity

- Cultural desire starts with a genuine passion to be open and flexible with others, to accept differences and build on similarities, and to be willing to learn from others as cultural informants → leads to a lifelong learning process of using self-evaluation, critique, and awareness that has been referred to as "**cultural humility**" (Tervalon & Murray-Garcia, 1998; Bates, 2018)
- **Cultural sensitivity** occurs when the HCP possesses some basic knowledge of and constructive attitudes toward the health/traditions observed among the diverse cultural group(s) in the setting in which the HCP is practicing. (Spector, 2013)

## A Transition to Cultural Humility and Sensitivity

HCPs must be culturally humble when interacting with patients from differing backgrounds as well as culturally sensitive of that population.

## Why emphasize culturally sensitive care for LGBTQ Patients?

- Fulfill professional responsibility
  - National Academy of Medicine (formerly Institute of Medicine)
  - HealthyPeople2020
  - The Joint Commission (2010)
  - ANA's Code of Ethics (2016)
  - AANA's Code of Ethics (2018)
- Decrease barriers to healthcare
- Reduce health disparities
  - "Although LGBT people share with the rest of society the full range of health risks, they also face a profound and poorly understood set of additional health risks due largely to social stigma." (IOM, 2011)

## Intersectionality

- "Complex, cumulative way in which the effects of **multiple forms of discrimination** (such as racism, sexism, and classism) combine, overlap, or **intersect** especially in the experiences of marginalized individuals or groups" (Merriam-Webster, 2020)
- This creates **multiple layers of discrimination and prejudice** that LGBTQ individuals may face in social or healthcare settings (related to SO, GI, race, ethnicity, socioeconomic status, etc.).

## Minority Stress Model

- Meyer (2003) suggested that sexual minorities face victimization, prejudism, and discrimination that creates chronic stressors which affect their well-being and mental health
  - **Objective/external stressors (distal)**: structural or institutional discrimination; overt discrimination such as harassment, bullying, violence
  - **Subjective/internal stressors (proximal)**: internalization of the negative attitudes that they have experienced; constant anxious vigilance in anticipation of more negative experiences (leading to increased stress and anxiety)

## LGBTQ Terminology

- LGBTQ or LGBT+ is an umbrella term often used to include all sexual and gender minorities
- Diverse and expanding population often thought of on a spectrum
- Sexual orientation (SO) ≠ gender identity (GI)

## LGBTQ Terminology

- LGBTQ spectrum includes many terms such as…

Lesbian
Gay
Bisexual
Transgender vs cisgender
Queer
Questioning

Intersex
Asexual
Pansexual
Genderfluid
Binary vs nonbinary

## LGBTQ Terminology

- Additional terminology

Transman, FTM, transmasculine
Transwoman, MTF, transfeminine
Top surgery
Bottom surgery
Drag Queen/King

HRT / GAT
MSM/WSW
Ze/hir/hirs

## LGBTQ Terminology

- Terms and cultures are continually changing.
- New terms may be encountered in the clinical setting.
- Words and terms may have different meaning to different people which can lead to confusion or communication missteps.

**So what do we do?**

- When an unknown term is encountered in the clinical setting, the HCP should be honest with the patient and ask what the term means to them.

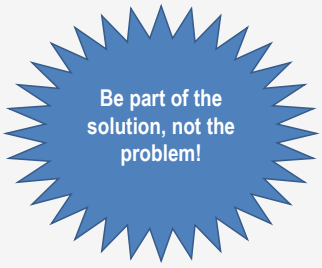
## Barriers Faced in Healthcare

- Decreased access to care
- Lack of insurance coverage
- Discrimination and refusal of care
- Social stigma (heterosexism, homophobia, transphobia)
- Overt harassment, microaggressions, or violence

## Barriers Faced in Healthcare

- Lack of knowledgeable HCPs
  - Programs for emerging healthcare providers do not adequately or consistently include LGBTQ-related content in their curriculum
  - HCP students report a lack of knowledge and lack of feelings of preparedness to care for these patients
  - LGBTQ patients have reported a lack of knowledgeable HCPs as a reason for delaying or avoiding seeking care

## Why emphasize culturally sensitive care for LGBTQ Patients?



## Health Risks

- LGBTQ Youth
  - Substance abuse, alcohol use, smoking
  - Suicidal ideation and/or suicidal attempts especially with family rejection (up to 3x more likely)
  - Mental health diagnoses are estimated to be as high as 10% for mood disorders, 25% for anxiety disorders, and 8.3% for substances use disorder (Kessler et al., 2012)
  - Disordered eating
  - Harassment, bullying (especially with family rejection)

## Health Risks

- LGBTQ Adults
  - Depression and anxiety
  - Suicidal ideation, suicidal attempts
  - Smoking (GBT men 50% more; LBT women 200% more)
  - Alcohol and illicit drug use
  - HIV/AIDS (gay men)
  - Under-recognition of cervical cancer (lesbian women)
  - Obesity/high BMI (lesbian women)

## Health Risks

- LGBTQ Elders/Older Adults
  - Less likely to seek healthcare services
  - Stigma, discrimination, and victimization may persist from childhood and adulthood
  - Less likely to have children/receive care from adult children
  - Depression
  - Social isolation

## Let's look at the numbers...

Social Setting

- LGBTQ persons
  - 39% rejected by a family member
  - 30% threatened/attacked
  - 21% treated unfairly by an employer
- Transgender persons
  - 61% physically attacked
  - 55% lost a job due to bias

## Let's look at the numbers...

Healthcare Setting

- LGBTQ persons report HCPs who…
  - Use excessive precautions or refuse to touch them (11%)
  - Blame them for their health status (12%)
  - Use harsh or abusive language (11%)
- Transgender persons report…
  - Being harassed in a doctor's office (25%)
  - Being denied medical care (19%)

## A final word about the numbers...

It is important to note that disclosure numbers and healthcare experience numbers may differ or be falsely low due to LGBTQ persons fear of SOGI disclosure and subsequent discrimination or rejection.

## Cultural Sensitivity Applied to Health Risks/Statistics Among LGBTQ

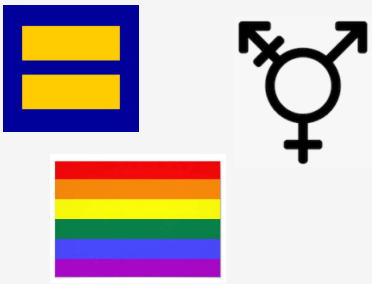
- We must apply a culturally sensitive attitude after learning of the increased health risks identified among LGBTQ patients.
- This means being aware that these possibilities exist, but not assuming that each patient is experiencing these comorbidities.
- Assumptions regarding a patient's lifestyle and health needs/risks based on their LGBTQ status leads to feelings of discrimination, lack of individualized care, lack of affirmation, and lack of trust with the HCP. (Smith, 2017; Hagen & Galupo, 2014; Lykens et al., 2018; Goldberg et al., 2019)

## Cultivating Best Practices

- Now that we have created a foundation, let's build upon this new information!
- We will now discuss best practices to utilize as the LGBTQ patient progresses through the healthcare encounter.

What do you think of when you see these images?

**What about these symbols?**



**Best Practices: Welcoming Environment**

- Create a welcoming environment upon the first impression
  - Pins, lanyards, stickers, and signs that imply LGBTQ inclusivity (i.e. rainbow flag, Human Rights Campaign equality stickers, transgender symbol)
  - LGBTQ posters or magazines/pamphlets in the waiting room
  - Openly post a non-discrimination statement regarding the provision of equal care from the practice regardless of age, race, ethnicity, abilities, religion, sexual orientation, or gender identity/expression

**Best Practices: Welcoming Environment**

- Create a welcoming environment upon the first impression
  - Label single-room bathrooms as unisex rather than separate male and female bathrooms
  - Participate in and recognize community/world events regarding the LGBTQ community (i.e. World AIDS Day, PRIDE month, etc.)

### Best Practices: Inclusive Intake Forms

- Broaden intake forms to allow for individualized expression
  - Change “marital status” to “relationship status” and add an option such as “partnered”
  - Add “transgender” and “other” as gender options with an area for open-ended gender expression or “choose not to disclose”
  - Provide option for “preferred name” or ”preferred pronouns”
- Allowing for SOGI expression is **gender affirming** and **fosters inclusivity** for the healthcare encounter

### Best Practices: Communication Techniques

- Approach each interaction with an **empathetic** and **nonjudgmental attitude** in order to build rapport and trust
- Remain aware that patients often face multiple levels of discrimination (intersectionality)
- Never make assumptions about your patient regarding their SO, GI, or health status!
- Ensure confidentiality of the healthcare encounter to the patient

### Best Practices: Communication Techniques

- Omit use of pronouns at first encounter or use gender neutral pronouns until preferred name/pronouns are established
- Establish preferred name and pronouns early in the visit with patient and document it on the preoperative evaluation
- Mirror the language or terms that the patient uses to describe self, partners, relationships, or identity
- Utilize open-ended questions

### Handling Communication Missteps

- Do not ask unnecessary questions that are not relevant to the medical care of the patient
- Politely correct colleagues regarding the correct name or pronoun for the patient or their support person
- Apologize for using the wrong name or pronoun
- Do not be surprised if a communication misstep may result in an emotional reaction from the patient

## Best Practices: Continuing Education

- Remember…terminology, cultural considerations, and accepted behaviors are continually evolving.
- It is imperative for HCPs to engage in educational opportunities to provide them with the knowledge to care for these patients.
- Peer-to-peer education can be a strong component of increasing knowledge on the topic.

## Let's recap…

- Striving for culturally sensitive care… when the HCP possesses some basic knowledge of and constructive attitudes toward the health/traditions observed among the diverse cultural group(s)
- To recap, we've covered…
  - Cultural competence vs humility vs sensitivity
  - Contributors to LGBTQ discrimination and its effects (intersectionality and minority stress model)
  - Current common terminology
  - Health risks and concerns to be aware of for LGBTQ patients
  - Best practices for caring for LGBTQ patients…

## Best Practices: Perioperative Care for Transgender Patients

- Apply all interventions previously discussed
  - Creating a welcoming environment
  - Utilizing inclusive intake forms
  - Using and documenting preferred names/pronouns for patient as well as their support person
  - Implementing appropriate communication strategies
  - Acknowledging and apologizing for communication missteps

## Best Practices: Perioperative Care for Transgender Patients

- Utilize a 2-step collection process consisting of gender identity followed by sex assigned at birth
- Document preferred name on the preoperative evaluation to inform other members of the anesthesia team
- Ask about hormone therapy (HT) when reconciling current medications
  - FTM: testosterone in gel, patch, IM, or SQ forms (testosterone undecanoate, enanthate, cypionate, or testopel)
  - MTF: androgen suppression therapy, cyproterone acetate, medroxyprogesterone acetate, spironolactone, finasteride, histrelin, progesterone, estrogen, and estradiol

**Best Practices:**
**Perioperative Care for Transgender Patients**

- Hormone therapy (HT) considerations
  - Adverse effects of estrogen therapy: venous thromboembolism; lipid profile changes; vomiting; migraine headache; emotional/mood swings and hot flashes if discontinued in last 2-4 weeks
  - Adverse effects of testosterone therapy: increased triglyceride levels, erythrocytosis (from increased erythropoietin), liver dysfunction, acne, and psychological/emotional changes
  - HT discontinuation can significantly affect the patient physiologically and psychologically, so it is usually continued throughout the perioperative period through collaboration between the surgeon and endocrinologist.

**Best Practices:**
**Perioperative Care for Transgender Patients**

- Assess for prior gender-confirming surgeries (i.e. laryngoplasty, thyroid chondroplasty) that may alter normal airway anatomy
  - Vocal cord damage, reduction of tracheal lumen/tracheal stenosis, dysphagia, tracheal perforation
  - Difficult airway supplies and smaller ETTs should be readily available if these issues are encountered during airway management
  - Landmark identification for thyromental distance estimation and emergency surgical airway placement may be inaccurate
- Assess for non-surgical therapies (i.e. breast binders, chest wraps, etc.) that may alter respiratory mechanics
  - Restrictive ventilatory changes may be present that necessitate alteration of ventilation techniques

**Best Practices:**
**Perioperative Care for Transgender Patients**

- Collaborate with the surgical team if additional VTE prophylaxis is needed (sequential compression devices and/or subcutaneous heparin).
- Currently, there are not any documented interactions of HT and specific anesthesia medications.
- Due to increased rates of HIV with this population, thoroughly review for organ impairment or antiretroviral medications if HIV diagnosis.
- Antiretroviral medications are metabolized by cytochrome P450 which may pose interactions with sedatives, hypnotics, anxiolytics, and common perioperative antibiotics. Assess for drug-drug interactions before the procedure.

**Best Practices:**
**Perioperative Care for Transgender Patients**

- Postoperative care centers around maintaining continuity of culturally sensitive care regarding a detailed report to the recovery room RN…
  - Preferred name/pronouns
  - Identification of support person if applicable
- Patients frequently cannot identify themselves in the recovery area due to residual sedatives, anesthetics, or narcotics (furthering the importance of a detailed handoff)
- Maintain privacy and avoid inappropriate discussions regarding the patient in the recovery area

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# Appendix C
# Knowledge Test

LGBTQ Cultural Sensitivity Presentation – Knowledge Test

1. Which component is **NOT** part of the Cultural Competence Model?
    a. Ability
    b. Knowledge
    c. Skill
    d. Encounters

2. Which term is correctly paired with its description?
    a. Cultural awareness – process through which an individual seeks and obtains an educational foundation regarding various world views of culture
    b. Cultural sensitivity – healthcare provider possesses some basic knowledge of and constructive attitudes toward the health/traditions observed among the diverse cultural group
    c. Cultural skills – life-long learning process of self-evaluation, critique, and awareness
    d. Cultural humility – the adoption of an element(s) of one culture or identity by members of another culture or identity

3. Which statement most accurately describes gender identity?
    a. The gender for which expresses themself
    b. An attraction to men, women, or both
    c. Someone who dresses as the opposite gender
    d. Inherent sense of being male, female, or something else

4. Which term means the same as transwoman?
    a. Female to male
    b. Male to female
    c. Transmasculine
    d. Intersex

5. Which is **NOT** a healthcare barrier encountered by LGBTQ patients?
    a. Decreased access to health care services
    b. Heteronormative assumptions from healthcare providers
    c. Ease of obtaining insurance coverage through partner/family
    d. Discrimination or refusal of care

6. Which correctly characterizes reported health risks in the LGBTQ population?
    a. Lesbian, bisexual, and transgender women have a decreased incidence of smoking compared to heterosexual cisgender women.
    b. Depression is increased across all LGBTQ age groups.
    c. LGBTQ youth are twice as likely to have suicidal ideation or suicide attempts.
    d. LGBTQ elders and older adults experience less stigmas and discrimination than youth and adults.

7. Which strategies can help create a more inclusive environment? **(Select 2).**
    a. Utilize signs or symbols that represent LGBTQ.
    b. Label bathrooms as male or female to promote patient choice for gender identity.
    c. Display a nondiscriminatory care policy regarding patient attributes.
    d. Avoiding affiliation with any specific organizations or associations.

8. Which options reflects understanding of an inclusive intake form regarding sexual orientation and gender identity options? **(Select 2).**
    a. Ask the patient's marital status to determine their relationship status.
    b. Utilize an option of "other" or "choose not to disclose."
    c. Limit the amount of options to avoid confusion for the patient.
    d. Provide an option for preferred name or pronouns.

9. Which statement is an appropriate communication strategy?
    a. "We're ready for your appointment now, sir."
    b. "Can you tell me your husband's contact information?"
    c. "The patient is here for their appointment."
    d. "This name doesn't match your records. What is your real name?"

10. What is an appropriate strategy when you or your colleague commit a communication misstep?
    a. Apologize for the misstep and ask for clarification.
    b. Ignore the misstep to avoid embarrassing the patient.
    c. Wait until you are in private with your colleague to correct them.
    d. Continue the interaction as patients are usually understanding.

11. Which communication strategy is **NOT** an appropriate interaction with an LGBTQ patient?
    a. Use open-ended questions to ask about their sexual orientation and/or gender identity or support person.
    b. Mirror the language or terms that the patient uses.
    c. Ask for clarification when unsure of what a term means.
    d. Wait until the patient brings up the topic themselves.

12. Which commonly prescribed medication can be used in hormone therapy (HT) for transgender patients?
    a. Spironolactone
    b. Acetazolamide
    c. Furosemide
    d. Metolazone

13. Which statement demonstrates an accurate understanding of perioperative anesthetic implications for transgender patients who have undergone gender-affirming surgery?
    a. Hormone therapy (HT) medication regimens may profoundly impact the efficacy of anesthetic agents.

b. Difficult airway supplies and smaller ETTs should be readily available before induction.
c. Gender-affirming surgery may result in obstructive ventilatory patterns.
d. Patients must discontinue hormone therapy (HT) for at least four weeks prior to surgery.

14. Testosterone given for hormone therapy (HT) can cause changes in which lab value(s)?
    a. BUN/Creatinine
    b. Coagulation studies
    c. Electrolytes
    d. ALT/AST

Appendix D
LGBT DOCSS

## LGBT-DOCSS

Instructions: Items on this scale are intended to examine clinical preparedness, attitudes, and basic knowledge regarding lesbian, gay, bisexual, and transgender (LGBT) clients/patients. Please use the provided scale to rate your level of agreement or disagreement for each item. Please note, items on this scale primarily inquire about either sexual orientation (LGB = lesbian, gay, and bisexual) or gender identity (transgender). Two questions are inclusive and refer collectively to lesbian, gay, bisexual, and transgender (LGBT) clients/patients.

1. I am aware of institutional barriers that may inhibit transgender people from using health care services.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

2. I am aware of institutional barriers that may inhibit LGB people from using health services.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

3. I think being transgender is a mental disorder.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

4. I would feel unprepared talking with a LGBT client/patient about issues related to their sexual orientation or gender identity.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

5. A same sex relationship between two men or two women is not as strong and as committed as one between a man and a woman.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

6. I am aware of research indicating that LGB individuals experience disproportionate levels of health and mental health problems compared to heterosexual individuals.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

7. LGB individuals must be discreet about their sexual orientation around children.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

8. I am aware of research indicating that transgender individuals experience disproportionate levels of health and mental health problems compared to cisgender individuals.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

2

9. When it comes to transgender individuals, I believe they are morally deviant.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

10. I have received adequate clinical training and supervision to work with transgender clients/patients.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

11. I have received adequate clinical training and supervision to work with lesbian, gay, and bisexual (LGB) clients/patients

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

12. The lifestyle of a LGB individual is unnatural or immoral.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

13. I have experience working with LGB clients/patients.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

14. I feel competent to assess a person who is LGB in a therapeutic setting.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

15. I feel competent to assess a person who is transgender in a therapeutic setting.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

16. I have experience working with transgender clients/patients.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

17. People who dress opposite to their biological sex have a perversion.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

18. I would be morally uncomfortable working with a LGBT client/patient.

| Strongly Disagree | | | Somewhat Agree/Disagree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | 6 | **7** |

**Scoring Instruction for the LGBT-DOCSS**

1) Reverse score all 8 questions in parentheses: (3), (4), (5), (7), (9), (12), (17), and (18). Use the reverse scoring Likert scale (1 = 7, 2 = 6, 3 = 5, 4 = 4, 5 = 3, 6 = 2, 7 = 1).

2) Calculate total LGBT-DOCSS mean score: Add all test items (using the reverse score for items in parentheses) and divide by 18.

> The total LGBT-DOCSS mean score is equal to: 1 + 2 + (3) + (4) + (5) + 6 + (7) + 8 + (9) + 10 + 11 + (12) + 13 + 14 + 15 + 16 + (17) + (18) = LGBT-DOCSS Total Raw Score. Divide by 18 to obtain mean score.

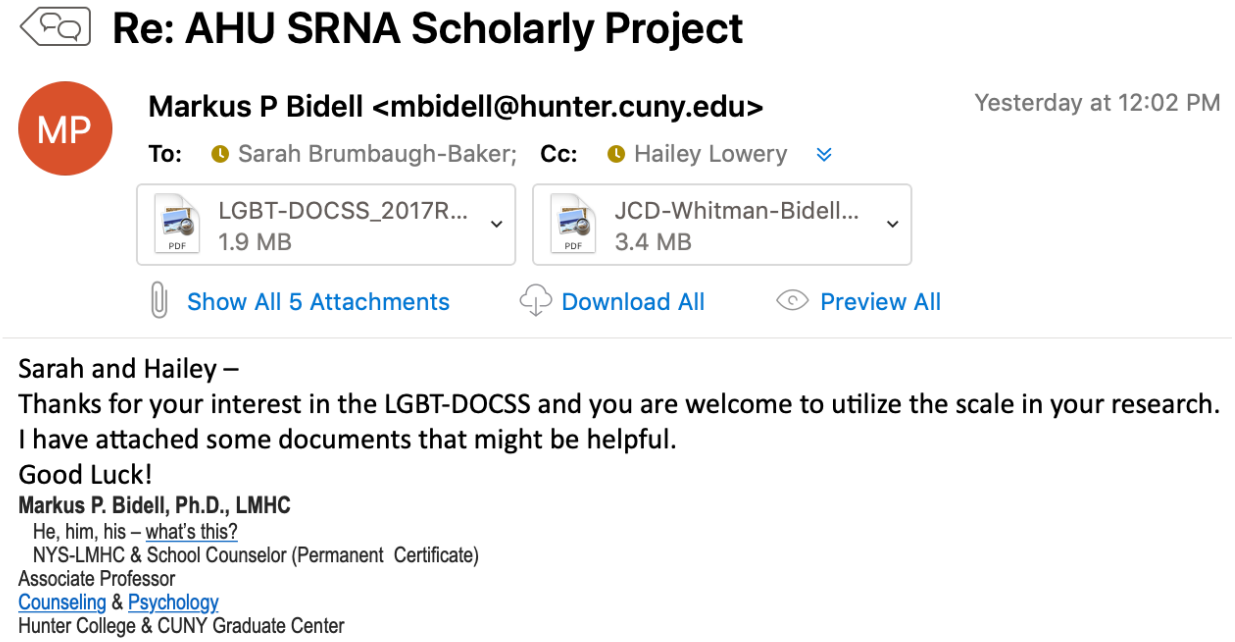
3) Calculate Subscale scores: For each subscale, add up the scores of the questions listed (using the reverse score for items in parentheses) and divide by the number of questions in each subscale.

> **Clinical Preparedness subscale**: (4) + 10 + 11 + 13 + 14 + 15 + 16 = LGBT-DOCSS Clinical Preparedness subscale Total Raw Score. Divide by 7 to obtain mean score.
>
> **Attitudes subscale**: (3) + (5) + (7) + (9) + (12) + (17) + (18) = LGBT-DOCSS Attitudes subscale Total Raw Score. Divide by 7 to obtain mean score.
>
> **Knowledge**: 1 + 2 + 6 + 8 = LGBT-DOCSS Knowledge subscale Total Raw Score. Divide by 4 to obtain mean score.

4) Higher scores are indicative of higher levels of clinical preparedness and rudimentary knowledge and less prejudicial attitudinal awareness regarding LGBT clients/patients.

**Suggested Citation:** Bidell, M. P. (2017). The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS): Establishing a new interdisciplinary self-assessment for health providers. *Journal of Homosexuality*, 10, 1432–1460. doi: 10.1080/00918369.2017.1321389

Appendix E
LGBT-DOCSS Author Approval



**Re: AHU SRNA Scholarly Project**

MP

**Markus P Bidell <mbidell@hunter.cuny.edu>** Yesterday at 12:02 PM

**To:** Sarah Brumbaugh-Baker; **Cc:** Hailey Lowery

LGBT-DOCSS_2017R... 1.9 MB

JCD-Whitman-Bidell... 3.4 MB

Show All 5 Attachments Download All Preview All

Sarah and Hailey –
Thanks for your interest in the LGBT-DOCSS and you are welcome to utilize the scale in your research.
I have attached some documents that might be helpful.
Good Luck!

**Markus P. Bidell, Ph.D., LMHC**
He, him, his – what's this?
NYS-LMHC & School Counselor (Permanent Certificate)
Associate Professor
Counseling & Psychology
Hunter College & CUNY Graduate Center

Appendix F
Participation Agreement Form

### Participation Agreement Form to Take Part in a Scholarly Project

***Title of scholarly project:*** Evaluation of an LGBTQ Cultural Sensitivity Presentation for Student Registered Nurse Anesthetists
***Investigator:*** Steven Fowler, DNP, CRNA
***Daytime Phone Number*:** (407)-303-9331
***Co-Investigators***: Sarah Brumbaugh-Baker, BSN, RN, CCRN and Hailey Lowery, BSN, RN

## Summary

You are being invited to take part in a quality improvement scholarly project. Your participation is voluntary. It's your choice whether to participate. This document provides a concise summary of this project. It describes the key information that we believe most people need to decide whether to take part in this project. Later sections of this document will provide all relevant details.

1. The purpose of the project is to evaluate an LGBTQ Cultural Sensitivity Presentation for student registered nurse anesthetists.
2. The procedures to be followed in the scholarly project include completing 2 pre-tests (regarding knowledge of and perceptions regarding LGBTQ patients), attending a video conference presentation, and completing the same 2 post-tests immediately after the presentation and 3 months after the presentation to assess for changes, retention, and/or a relationship between them.
3. The possible risk(s) that are related to being in this project are minimal. You are being asked to complete 2 tests, attend a video conference presentation, and complete the same post-tests immediately after and 3 months after the presentation. Your information will be de-identified.
4. The benefit(s) to participating in this scholarly project include gaining new knowledge regarding the LGBTQ patient population and how to deliver culturally sensitive care to LGBTQ patients.
5. Alternative actions include not participating in the scholarly project.

## Participation Agreement Form to Take Part in a Scholarly Project

### *Why am I being invited to take part in a scholarly project?*

We invite you to take part in a quality improvement scholarly project because you are a student registered nurse anesthetist (SRNA) in cohort 2022 or 2023 at AdventHealth University's Doctor of Nurse Anesthesia Practice program.

### *What should I know about a scholarly project?*

- Someone will explain this project to you.
- Whether or not you take part is up to you.
- You can choose not to take part. There will be no penalty or loss of benefits to which you are otherwise entitled.
- You can agree to take part and later change your mind. There will be no penalty or loss of benefits to which you are otherwise entitled.
- You can ask all the questions you want before you decide.
- If you are a student, you should know that your participation or lack of participation in this projec will not affect your grades or academic standing in any way.

### *Why is this scholarly project being done?*

The project's identified problem is a lack of LGBTQ-related content in AdventHealth University's Doctor of Nurse Anesthesia Practice program. The goal is to impact the SRNA's knowledge base regarding the provision of culturally sensitive, evidence-based perioperative care for individuals who identify as LGBTQ through the delivery of a 60-minute presentation through video conference. Evaluation of the presentation will include assessment of SRNAs' knowledge of and perceptions regarding the LGBTQ patient population before and after delivery of the educational presentation to assess for change and/or retention and if a relationship exists between the results.

### *How long will the scholarly project last?*

We expect that you will be in this scholarly project for approximately 3 months due to a 3-month post-test after the presentation. However, the actual time commitment is likely less than 2 hours combined (completing the tests plus attending the video conference presentation). After the 3-month post-test, your time in the project is finished.

### *What happens if I agree to be in this scholarly project?*

You will be asked to participate in this project in the following ways. Your initial participation will take approximately 20 minutes to complete 2 tests. Next, there will be a 60-minute presentation through video conference. After the presentation, you will complete the same 2 tests. At 3 months after the presentation, you will complete the same 2 tests. Because of social distancing guidelines, all testing will be delivered to your email through an electronic survey service. The presentation will be an online video conference.

### *What other choices do I have beside taking part in the project?*

Your alternative is to not take part in the scholarly project.

## Participation Agreement Form to Take Part in a Scholarly Project

### *Is there any way being in this project could be bad for me?*

The risks associated with participation in this project are minimal. There are not any expected physical, legal, or economic risks.

You are being asked to complete tests regarding your knowledge and perceptions of LGBTQ patients. The tests will be completed and submitted by you with a personal 6-digit code (consisting of a combination of letters and numbers) that you create and only you know. This is done so that your information is de-identified before submission. However, we cannot guarantee that your privacy or confidentiality will not be broken if you submit identifiable information.

The video conference presentation will allow for interactive discussion regarding the presentation's topic. Psychological and social risks of participating in the video conference discussion could include embarrassment, fear, guilt, ostracizing, or discrimination.

### *Will being in this project help me in any way?*

We cannot promise any benefits to you or others from your taking part in this scholarly project. However, possible benefits to you include gaining new knowledge regarding the LGBTQ patient population and the delivery of culturally sensitive care to LGBTQ patients. Possible benefits to others include increasing their own knowledge of LGBTQ patients from your knowledge gained from the project. The insight from this project may help guide future nurse anesthesia programs in incorporating LGBTQ-related content into their curriculum.

### *Are there any costs in this project?*

There are not any costs for participating in the project.

### *Will there be compensation for injury?*

There are not any anticipated injuries for this scholarly project.

### *What happens to the information collected for the scholarly project?*

The de-identified data collected for this project will not be used or given to other investigators for future projects even if information that identifies you is removed.

The final results of the scholarly project will be shared via poster board presentation at AdventHealth University's Doctor of Nurse Anesthesia Practice program and possibly for submission for publication. No individually identifiable information will be shared.

### *What else do I need to know?*

**May I withdraw or revoke (cancel) my permission?**

Yes, but this authorization (permission) will never expire (end) unless you revoke (cancel) it in writing. You may withdraw or take away your participation in this scholarly project at any time. You do this by sending written notice to the principal investigator. If you withdraw your permission, you will not be able to continue being in this project. If you want to withdraw your permission and not have your information shared beyond what has already been shared, please send the written notice to:

Steven Fowler, 671 Winyah Drive, Orlando, FL, 32803

## Participation Agreement Form to Take Part in a Scholarly Project

When you withdraw your permission, no new information that might identify you will be gathered after that date. Information that has already been gathered may still be used.

**How long is my information kept?**
All collected information and data will be deleted seven years after the project's conclusion.

### *Who can I talk to?*

If you have questions, concerns, or complaints, or think the project has hurt you, talk to the team at the phone number(s) listed on the first page.

## Participation Agreement Form to Take Part in a Scholarly Project

Your signature documents your permission to take part in this scholarly project.

Printed name of participant

Signature of participant Date

Signature of person obtaining agreement Printed Name Date

My signature below documents that the information in the form and any other written information was accurately explained to, and apparently understood by, the participant, and that agreement was freely given by the participant.

Signature of witness to agreement process Printed Name Date

If signature of a witness not obtained, confirm the following:

- ❑ Subject is able to read in this language and write

# Appendix G
# Recruiting Materials

Recruiting Material: Email to be sent to students in cohorts 2022 and 2023 of AdventHealth University's Doctor of Nurse Anesthesia Practice Program

Subject: "DNAP Scholarly Project: Evaluation of an LGBTQ Cultural Sensitivity Presentation for SRNAs"

Message:

Hello,

You are receiving this email because you are an SRNA in cohort 2022 or 2023 of AHU's DNAP Program. We invite you to take part in our Scholarly Project which will evaluate the delivery of an LGBTQ Cultural Sensitivity Presentation for SRNAs.

We have attached a pamphlet regarding the purpose of the Scholarly Project, participation details, and potential benefits of participating. The project is conveniently being conducted entirely online to adhere to social distancing guidelines. Please review the attachment and reach out to us with any questions you have.

Your participation is completely voluntary and confidential. We have attached a participation agreement form that must be completed in order to participate in the project. Please review the form and reach out to us with any questions you have.

Once you have completed and returned the form to us, you will receive an email with a link to complete two pre-tests before attending one live video conference presentation on April 2, 2020, at 10am. Immediately after the presentation, another email will be sent with a link to complete the same post-tests. Three months after the presentation, a final email will be sent with a link to complete the same post-tests. Completing the tests should take less than 20 minutes of your time. Your participation is concluded after completing the last round of post-tests.

Please fill out the highlighted areas in the participation agreement form and email it back (sarah.brumbaugh@my.ahu.edu). If you have any questions regarding the participation agreement form or Scholarly Project, please reach out to us.

Thank you very much for contributing to the success of our Scholarly Project,

Sarah Brumbaugh-Baker (724-859-7005, sarah.brumbaugh@my.ahu.edu)
Hailey Lowery (814-282-3439, hailey.lowery@my.ahu.edu)

AdventHealth University Department of Nurse Anesthesia | Spring and Summer Trimester 2021

# Evaluation of an LGBTQ Cultural Sensitivity Presentation for Student Registered Nurse Anesthetists

## Introduction to the Scholarly Project

The 2022 and 2023 AHU DNAP cohorts are invited to take part in this scholarly project that will evaluate the delivery of an LGBTQ Cultural Sensitivity presentation. The project's presentation aims to impact the knowledge base of SRNAs regarding the delivery of culturally sensitive, evidence-based perioperative care to patients who identify at LGBTQ.

## Participation

· Review and complete participation agreement form
· Two pre-tests via SurveyMonkey
· Attend live video conference presentation
· Two post-tests via SurveyMonkey immediately after presentation
· Two post-tests via SurveyMonkey 3 months after presentation

Agreement forms must be complete prior to completing pre-/post-tests and attending the live video conference presentation.

## When will this take place?

The tests will be delivered via SurveyMonkey after agreement forms have been received. The live video conference presentation will take place at end of the Spring Trimester 2021 via Zoom. Zoom is user-friendly and available on PC, Mac, and smartphone devices.

## Potential Benefits

→ Learn about the LGBTQ patient population

→ Gain knowledge regarding delivering culturally sensitive care to LGBTQ patients

→ Guide nurse anesthesia programs regarding including LGBTQ-related content into curriculum

→ Share your new knowledge with others

**1** Your participation is completely voluntary. You may leave the project at any time.

**2** Participation agreement forms will be collected before testing or presentation.

**3** All information is de-identified and used solely for the purpose of this project.


## Student Investigators:

Sarah Brumbaugh-Baker, BSN, RN, CCRN
Sarah.Brumbaugh@my.ahu.edu

Hailey Lowery, BSN, RN
Hailey.Lowery@my.ahu.edu

Appendix H
Budget

| Item | Cost |
|---|---|
| SurveyMonkey 1-year Subscription Advantage Annual | $384.00 |
| **Total** | **$384.00** |

# Appendix I
# SRC Approval and IRB Determination

**Date: November 25, 2020**

**To:** Steve Fowler, DNP, CRNA

Nurse Anesthesia Department

**Re: NAP0320 Evaluation of an LGBTQ Cultural Sensitivity Presentation for Student Registered Nurse Anesthetists**

The Scientific Review Committee has reviewed your research application and voted on the following decision:

- ☐ Approved as submitted
- ☑ Approved with recommendation(s)
- ☐ Approved pending required change(s)
- ☐ Change(s) required for resubmission

Comments:

Please provide additional clarification on the following items:

Although the literature review does point out two important points: that the LGBTQ community faces discrimination and resulting health disparities due to inadequate healthcare encounters and that adding LGBTQ information into health profession curricula is positively received and helpful, this appears inadequate to support why this study is being done. Too many assumptions are being made. For example, does the literature support that the insensitivity the LGBTQ community faces in healthcare is due to a lack of inclusion in the curricula? Need to include more information about the previous studies that were done on this subject. It would have been good to expand it a little more to build the case towards the aim of the study.

Study design appears to be sound. Would recommend stating information about the anonymity of the subjects in the Subject Selection section. Would also be helpful to include that this is a sample of convenience in that section. Both items are stated later, it but would be helpful to have them in Subject Selection. How will anonymity of subjects be maintained if they are required to send a letter to the PI in order to withdraw from the study? Also, how will subjects be eligible for the raffle drawing if their participation is anonymous? IRB will want clarity on these questions.

It is encouraging to hear that the knowledge test underwent a four-stage validation process. Would be helpful to have a better explanation of that process. Has the LGBT-DOCSS tool been validated? I see a citation on the survey but no mention elsewhere. This is an important consideration.

To improve the quality of this study, a power analysis should be done to determine how many participants are needed to confirm that the results of the study can be considered significant.

I see the sections on risks and benefits, but I do not see anything about study limitations mentioned. This should be included.

The study is described both as a Human Subjects Research and a Quality Improvement. I think it can fall under the second category, so a decision should be made about this.

The outcome measures are well defined and presented. My only question is why is the post-tests at 3 months used to assess the relationship between the knowledge and perception, instead of using the post-tests done immediately after the presentation. Using the tests at 3 months may add the "retention" factor into the analysis. If retention is not good, the correlation won't be properly assessed.

Although the sample used will be the number of subjects that are available, it would be informative to calculate the power of the study with the sample used.

The word "subjects" should be changed to be "participants," as is the currently recommended term for anyone participating in research.

There is no clear indication of who will be sending the emails or who will be presenting the education video. Are the 2 researchers (DNAP students) sending the emails and presenting the education video? If so, please clearly state this information

Should there be anything else that we can do to assist you for a successful completion of your project, please let us know.

Sincerely,

Christopher Campbell, Ph.D.
Chair, Scientific Review Committee

Cc: Sarah Brumbaugh-Baker, Sub-investigator
Hailey Lowery, Sub-investigator
Leana Araujo, Ph.D., Research Officer


Institutional Review Board
800 N. Magnolia Avenue
Suite 500
Orlando, FL 32803
Telephone: (407) 200-2677
FWA: 00002060

December 14, 2020

To: Steven Fowler

On December 14, 2020 the IRB determined the following is not research:

| | |
|---|---|
| Review Type: | Administrative Review |
| Title: | Evaluation of an LGBTQ Cultural Sensitivity Presentation for Student Registered Nurse Anesthetists |
| Principal Investigator: | Steven Fowler |
| IRB number: | 1683203-2 |
| Documents reviewed: | • Cover Sheet - Sarah Hailey Determination of QIQA vs Research Form 1683203 12-08-2020.docx (UPDATED: 12/8/2020) |

If you have any questions, please contact the AdventHealth Orlando IRB at 407-200-2677 or AH.IRB.general@AdventHealth.com. Please include your project title and IRBNet ID number in all correspondence with this office.

Sincerely,

IRB Office

**Friday, January 22, 2021 at 10:45:38 AM Eastern Standard Time**

**Subject:** Re: Regarding Project Implementation after IRB Determination
**Date:** Friday, January 15, 2021 at 12:58:29 PM Eastern Standard Time
**From:** Samsam, Mohtashem
**To:** Sarah Brumbaugh-Baker, Mohtashem Samsam
**CC:** Hailey Lowery, Fowler, Steve, Leana Araujo (external contact)

Hi,
I think you should be OK to start and please follow your department's requirements for such studies.
Thank you,
Mohtashem Samsam

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**From:** Sarah Brumbaugh-Baker <Sarah.Brumbaugh@my.ahu.edu>
**Sent:** Friday, January 15, 2021 12:42 PM
**To:** Mohtashem Samsam <Mohtashem.Samsam@my.ahu.edu>
**Cc:** Hailey Lowery <Hailey.Lowery@my.ahu.edu>; Fowler, Steve <Steve.Fowler@ahu.edu>
**Subject:** [EXTERNAL] Regarding Project Implementation after IRB Determination

Good afternoon, Dr. Samsam,

As instructed by our DNAP research course coordinator, we are emailing to ask permission to initiate Scholarly Project implementation and data collection after receiving “Not Research Determination” from IRB. I have attached the document confirming the decision from IRBNet.

Thank you,
Sarah Brumbaugh-Baker and Hailey Lowery

# Appendix J
# Final Project Timeline

**Fall Trimester 2019 (Appraisal and Synthesis)**

Submit preliminary approval for Scholarly Project Topic and PICOT questions

Draft literature review

**Summer Trimester 2020 (Design)**

Consult with appointed Scholarly Project Chair for official topic and PICOT approval

Finalize literature review and matrix tables

Identify candidates to finalize Scholarly Project Committee

Finalize methodology of scholarly project

Consult with AHU statistician regarding recommended statistical analysis for scholarly project

Obtain author approval for use of LGBT-DOCSS tool

Receive project site approval from AHU program administrator

Conduct key player interviews to begin creation of LGBTQ Cultural Sensitivity Presentation

**Fall Trimester 2020 (Literature Review)**

Draft and finalize LGBTQ Cultural Sensitivity Presentation

Create knowledge test and undergo four rounds face-validation

Create participation agreement form and recruiting materials

Draft Scholarly Project Paper and continually revise per feedback from Scholarly Project Committe Members

Present proposed scholarly project outline to DNAP department and AHU faculty members for feedback

Compile all components for final approval by Scholarly Project Chair and submit to AHU's SRC and IRB panels

**Spring Trimester 2021 (Implementation)**

Continue consultation with Scholarly Project Committee regarding implementation of LGBTQ Cultural Sensitivity Presentation

Distribute emails with recruiting materials and participation agreement forms at scheduled intervals

Collect participation agreement forms

Transcribe knowledge test and perception test onto SurveyMonkey platform

Send knowledge and perception pretests to individuals who completed participation agreement forms

Deliver LGBTQ Cultural Sensitivity Presentation to SRNAs

**Summer Trimester 2021 (Implementation)**

Send knowledge and perception posttests and 3-month posttests at scheduled intervals to participants

Compile and grade all tests into Microsoft Excel document

Create data dictionary and clean all anonymous, raw data for delivery to AHU Statistician for analysis

**Fall Trimester 2021 (Dissemination)**

Analyze data from AHU statistician

Interpret results into final components of Scholarly Project Paper

Draft Scholarly Project Paper and send to Scholarly Project Committee members for feedback

Create Scholarly Project Poster and submit to Scholarly Project Chair for feedback

Create Scholarly Project PowerPoint Presentation and submit to Scholarly Project Chair for feedback

Research and select potential relevant journals to which to submit finished Scholarly Project article

**Spring Trimester 2022 (Dissemination)**

Incorporate critiques from Scholarly Project Committee Members into Scholarly Project Paper, Poster, and PowerPoint Presentation

Finalize paper, poster, and presentation

Submit query to potential relevant journals regarding article submission for dissemination

Disseminate project poster and presentation