Spring 5-4-2024

Incorporating a High Fidelity Transgender Simulation into Undergraduate Nursing Curriculum

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DOCTOR OF NURSING PRACTICE (DNP)

FINAL DNP PROJECT

Incorporating a High Fidelity Transgender Simulation into Undergraduate Nursing Curriculum

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The final DNP project presented to the

Faculty of the University of Nebraska Medical Center College of Nursing

In Partial Fulfillment of the Requirements for the Degree

DOCTOR OF NURSING PRACTICE

May 2024

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Abstract

Purpose

The purpose of this study was to evaluate the knowledge and attitudes of nursing students participating in a high-fidelity transgender patient simulation. The aims were to increase student knowledge and confidence to improve communication and provide more inclusive and equitable care.

Healthcare providers are not adequately prepared to manage the unique health needs of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community. Nurses are ideally positioned to address gaps in LGBTQ healthcare by providing culturally competent care. Yet, LGBTQ health education is lacking in most undergraduate nursing school curriculums.

Methods

62 undergraduate nursing students participated in a post-surgical transgender patient simulation using a high-fidelity mannequin. Students completed pre-clinical course work including a brief video depicting interactions between healthcare providers and gender queer folk and a pre simulation survey. Following the high-fidelity mannequin simulation, students completed a post simulation survey aimed at assessing students' knowledge, attitude, and beliefs about LGBTQ patients. Pre- and post-survey scores will be compared using a paired t-test. Nursing faculty were also asked to complete a short questionnaire evaluating the perceived effectiveness of the transgender patient simulation.

Results

Results of the pre-simulation survey showed 81 % of nursing student harbored favorable attitudes towards transgender individuals. Preliminary post simulation survey results indicate students increased their confidence and capability to care for transgender individuals. Nursing faculty responded positively towards the transgender patient simulation and expressed intent to utilize the simulation in future semesters.

Conclusion

Integrating a high-fidelity transgender patient scenario in undergraduate nursing curriculum via stimulation has been shown to increase gender-affirming cultural competency among nursing students. The LGBTQ population needs knowledgeable and competent providers to improve patient outcomes and quality of care. As such, nursing students need further instruction and education about LGBTQ health.

Introduction

The Center for Disease Control and Prevention recognized the lesbian, gay, transgender, and queer (LGBTQ) population as a health disparate and a medically underserved group, largely due to the lack of competent medical providers and adequate insurance coverage (Stepleman et al., 2019). In a survey of 602 LGBTQ participants, 50% reported they felt their healthcare provider needed additional education on the specific health needs of LGBTQ patients (Stepleman et al., 2019). Transgender men and women both reported systemic issues within healthcare including discrimination, poorly educated providers, and a provider hesitancy towards proper physical examination (Stepleman et al., 2019). In one study investigating health and social services for transgender patients in San Francisco, California, participants reported "humiliating" treatment and often a complete refusal to provide services (Nemoto et al., 2005). The insensitivity, negative attitudes and prejudice towards LGBTQ patients has culminated into a glaring void in LGBTQ health.

Healthy People 2030 aims to improve the health and well-being of the LGBTQ population and increase adult access to evidence based preventative care (Office of Disease Prevention and Health Promotion [ODPHP], n.d.). The limited number of providers with expertise and experience treating the LGBTQ community creates a barrier to access. Lim et al. (2015) reported the mean time devoted to LGBTQ health topics was only 2.12 hours throughout an entire baccalaureate nursing program. In a study analyzing practicing nurses' educational

programs, most reported there was no LGBTQ specific content (Marsh et al., 2022). The insufficient LBGTQ education contributes to the marginalized community's health disparities and hinders future nurses' "ability to provide holistic and patient centered care" (Marsh et al., 2022). Minimal exposure to LGBTQ topics subsequently leads to nurses' discomfort, hesitation, or refusal to provide adequate patient care to LGBTQ individuals (Marsh et al., 2022).

Problem Statement

Healthcare providers are not adequately prepared to manage the unique health needs and challenges faced by LGBTQ individuals to reduce health disparities. Nurses are ideally positioned to address the glaring gaps in LGBTQ healthcare by providing front line culturally competent care. Yet, LGBTQ health education is abysmal in most nursing school curriculums. An exploratory descriptive study of 70 North Carolina nursing programs determined that while most discussed LGBTQ health issues, there was no standardized content or specific practice policies (Cornelius et al., 2017). Institutional barriers including religious affiliations and political pressure prevent other nursing programs from incorporating LGBTQ content (Lim et al., 2015). Another consideration, LGBTQ health topics are not included on National Council Licensure Exam, (NCLEX), nor are they required for accreditation (Lim et al., 2015). The exclusion from NCLEX and accreditation requirements creates minimal incentive for schools to enact a curriculum change. Studies where LGBTQ cultural competency material is integrated into curriculum has shown to increase student knowledge and comfort with caring for LGBTQ individuals potentially resulting in improved health outcomes among the LGBTQ community (McEwing et al., 2020).

Introducing LGBTQ health topics into undergraduate nursing curriculum via a patient stimulation has been shown to increase cultural competency among nursing students. In an LGBTQ oncology stimulation, nursing students at Duke University improved their use of open and inclusive language (Koch et al., 2021). Senior-level undergraduate baccalaureate and accelerated nursing students enrolled at the University of Pennsylvania School of Nursing reported an increase in confidence creating a safe and respectful environment for LGBTQ patients (Hickerson et al., 2018). A transgender patient stimulation administered to nursing students in Connecticut and Florida concluded the experience produced a significant positive change in affirmative practice (Maruca et al., 2018). A standardized male to female transgender patient in the emergency setting provided a more realistic environment for students to practice variety of skills and students overwhelming reported an improved ability to provide culturally sensitive care (Ozkara et al., 2019). Incorporating a LGBTQ patient stimulation into undergraduate nursing education has profound effects on students' attitudes, beliefs, and knowledge towards the marginalized LGBTQ community. As such, the clinical research question for this project is: In University of Nebraska Medical Center (UNMC) undergraduate nursing students, does the inclusion LGBTQ health education and a transgender patient in an interactive simulation (SIM) scenario affect LGBTQ cultural competence among nursing students?

Purpose Statement

The purpose of this project is to address deficiencies in undergraduate nursing curriculum by integrating LGBTQ health education. The addition of LGBTQ topics will ideally bolster confidence and competence among nursing students when providing patient centered

*care for those identifying as LGB*TQ. Furthermore, the introduction of LGBTQ health will aid nursing students in creating an inclusive and equitable environment to further strengthen LGBTQ patient and nurse provider relationships. The question this project aims to answer is *does use of a high-fidelity transgender patient simulation increase nursing students' ability and confidence to care for transgender patients*?

This project aims to:

1. Develop a patient SIM scenario with a transgender patient that can be incorporated into undergraduate nursing curriculum.
2. Establish a baseline metric on nursing students' knowledge, attitudes, and beliefs about LGBTQ patients prior to SIM scenario.
3. Increase nursing student knowledge and comfort providing culturally competent care to the LGBTQ population specifically pertaining to the use of gender affirming language and the uniqueness of transgender healthcare post SIM scenario.

Review of Literature

The lesbian, gay, bisexual, transgender and queer (LGBTQ) community comprises 7.2% of the U.S. population yet, the LGBTQ population experiences a plethora of healthcare inequities (Jones, 2022). Lesbian and bisexual women have higher rates of asthma, obesity, hypertension, and diabetes (Stepleman et al., 2019). Bisexual and gay men and transgender women endure higher rates of HIV transmission and sexually transmitted disease than their heterosexual counterparts (Stepleman et al., 2019). Additionally, the LGBTQ community harbors greater rates of "risky health behaviors, including tobacco, alcohol, and other substance use, which have largely been tied to persistent experiences of minority stress"

(Stepleman et al., 2019). Furthermore, the transgender population suffers disproportionally from poverty, unemployment, and psychological stress (Carlson et al., 2021).

The LGBTQ community faces several barriers to health including the lack of knowledgeable medical providers, social stigma, discrimination, and limited financial resources. The transgender population encounters inadequate care because their "health needs are frequently rendered invisible by a focus on sexual identities rather than on gender identities" (Carlson et al., 2021). Moreover, non-inclusive clinic environments, previous negative healthcare experiences and a low health literacy compound the reluctance of LGBTQ patients to seek out healthcare services (Hermosillo et al., 2022).

Studies relevant to the proposed project were categorized by level and quality of evidence using Melnyk and Fineout-Overholt's Levels of Evidence (Table 1), and GRADE Quality of Evidence (Table 2), respectively (Guyatt et al., 2011; Melnyk & Fineout-Overholt, 2018). After utilizing inclusion and exclusion criteria and removing studies that were not pertinent, the results were narrowed down and compiled to 17 applicable studies. Seven of the relevant studies were of qualitative design, six were categorized as quasi-experimental, three were designated cohort studies and one was a randomized controlled trial (Guyatt et al., 2018). Thirteen studies were rated as moderate quality with the remaining four classified as low quality (Melnyk & Fineout-Overholt, 2018).

Five of the seventeen studies developed and utilized a patient simulation scenario. Four of those studies specifically used a transgender patient while the other focused on a gay male teenager. Two of the transgender stimulation studies notably used a standardized patient while the three other patient simulation scenarios deployed a high-fidelity mannequin. A

standardized patient is an actor portraying a scripted history, behavior, and symptoms (Koch et. al, 2021). Studies employing standardized patients demonstrated “an increase in students’ perceived confidence and assessment and communication skills when transferred to actual patients” (Wilbur et al., 2018). In both transgender standardized patient simulations, students learned how to provide culturally sensitive care using therapeutic communication (Koch et al., 2021, Ozkara et al., 2019). Students reported confidence in their assessment skills and an increase in their knowledge and awareness regarding transgender care (Koch et al., 2021, Ozkara et al., 2019). In Ozkara et al. (2019), 93.75% of students strongly agreed “that they felt more confident in their ability to prioritize nursing interventions, utilize therapeutic communication skills, provide interventions to promote patient’s safety, and use evidence-based practice when caring for a transgender patient”. Quantitative findings resulted in a significant impact on nursing students’ knowledge of assessing a transgender patient with 92.31% of students reporting the SIM scenario was extremely helpful for their education (Koch et al., 2021).

Hickerson et al. (2018) used a variety of strategies to teach LGBTQ health care to nursing students enrolled in community and public health. The study combined three hours of LGBTQ classroom content, assigned readings, and a simulation with a trained simulation (SIM) instructor and a content expert (Hickerson et al., 2018). Hickerson et al. (2018) had the largest sample size, n = 230, specific to the SIM scenario studies. The researchers utilized a post-simulation Likert scale survey to assess satisfaction, perceptions related to realism, and self-assessed competency. They found that the students rated the simulation as realistic (4.9 of 5) and enriching (4.97 of 5) (Hickerson et al., 2018). Students were better able to use open and

inclusive language with LGBTQ patients, felt more confident establishing a safe and respected atmosphere for patients, and more assured discussing safer sex practices with LGBTQ patients (4.65 of 5.0) (Hickerson et al., 2018).

Pittiglio & Lidtke (2021) designed a high-fidelity mannequin simulation highlighting healthcare provider discrimination towards transgender patients. Pittiglio & Lidtke (2021) administered the gay affirmative practice scale (GAP) to students one week prior to the simulation. The initial GAP survey was followed by an educational module related to transgender patient centered care (Pittiglio & Lidtke, 2021). Following the simulation, students completed the GAP survey again. In comparison between the pre and post GAP survey, the simulation proved "effective in improving attitudes, beliefs, comfort and competencies in relation to LGBTQ+ identifying patients" (Pittiglio & Lidtke, 2021). Similarly, Maruca et al. (2018) integrated LGBTQ content into the didactic portion of their psychiatric nursing course and utilized the GAP survey pre and post simulation. The results showed a statistically significant difference in student practice behaviors towards LGBTQ patients (Maruca et al., 2018).

The remaining studies made efforts to integrate LGBTQ cultural competency content into nursing curriculum. The information proved useful and informative since the studies align with the project's aim to add LGBTQ health education into UNMC's College of Nursing curriculum. All studies utilized a pre and post survey to evaluate the effectiveness of LGBTQ health education on nursing students' knowledge, beliefs and/or attitudes towards LGBTQ patients. The LGBTQ specific content ranged from lectures, online modules, case studies, reflective writing assignments, and virtual simulations. Two studies promoted an interdisciplinary approach to LGBTQ health care (Maruca et al., 2018, Smith et al., 2021). One

distinctive study invited a transgender man to share the story of his pregnancy (pre-conception, antepartum, intrapartum, and post-partum care) (McMillian-Bohler, 2022). The only randomized study in the literature review was an international study performed in Spain. The intervention group accessed transgender course content through lectures, round tables, and workshops while the control group was not exposed to LGBTQ education. All nursing students completed the knowledge questionnaire about transgender(KOaT) survey and scores were compared within the intervention group (pre and post) and between the control group (Garcia-Acosta et. al, 2019).

Dawkins & Daum (2022) discussed how SIM education can be utilized as a tool to promote principles of inclusivity using first person-language. Relevant to this project they found that healthcare providers' awareness of using appropriate gendered terminology creates a welcoming environment for lesbian, gay, bisexual, transgender, intersex, and asexual (LGBTQIA) persons (Dawkins & Daum, 2022). Landis & Cielowski (2022) utilized both didactic and game vignettes in a sample of 84 undergraduate nursing students. A certified healthcare simulation educator facilitated the 30-minute segment with short vignettes and debrief (Landis & Cielowski, 2022). The scenarios developed touched on the topics of chosen names and pronouns, effects bias and discrimination towards patient and provider relations, and the role of electronic health records (EHR) in gender-affirming care (Landis & Cielowski, 2022). Anonymous pre and post surveys were administered, and results were collected using Qualtrics (Landis & Cielowski, 2022).

A commonality among the various studies analyzed was a small sample size, a limited study population, no randomization, and a lack of long-term data. The use of a standardized

patient improves student learning outcomes but can be costly to universities creating a financial hindrance (Hickerson et al., 2018; Ozkara et al., 2019; Wilbur et al., 2018). Most of the post surveys were administered immediately following the intervention thus it is difficult to ascertain if knowledge learned was retained and applied to clinical practice. Another inconsistent variable was the type of pre and post survey administered. The specific surveys mentioned include the Gay Affirmative Practice (GAP), Knowledge Questionnaire about Gender (KQaT), Sexual Orientation Counselor Competency Scale (SOCCS) and the Simulation Effectiveness Tool–Modified (SET-M). Maruca et al., (2018) found that only 48/159 participants completed the pre and post survey. This particular study suggested that the GAP survey might have been too advanced for nursing students with limited clinical experience (Maruca et al., 2018). Hence, the true impact of incorporating LGBTQ health education into undergraduate nursing on the actual LGBTQ community is difficult to determine due to the absence of a standardized curriculum and no viable long-term data.

Conceptual/Theoretical Framework

To address the purpose of this project's aim to foster nursing provider LGBTQ competency the Cultural Safety framework for LGBTQIA+ communities, shown in Figure 1, will guide the development of transgender patient SIM scenario. The goal of the Cultural Safety framework for LGBTQ communities includes the provider forming partnerships with patients to transfer power from the provider to the patient. Understanding the patients' personal activities of daily living or everyday norms and experiences and incorporate them into clinical care. Understanding what the patient needs to stay safe, with frequent check-ins from clinicians about whether the interactions or plan of care might inadvertently cause further harm.

Demonstrating patient centered care by listening and providing meaningful care that fits into patients' lives. Finally, purposeful self-reflection is a process of uncovering one's biases and beliefs that may lead to stigmatization or judgment and transforming them to create a nonjudgmental environment (Mukerjee et al., 2022).

Methodology

The UNMC's College of Nursing is subject to standards, procedures and guidelines set by the Commission on Collegiate Nursing Education (CCNE). The proposed transgender stimulation fulfills numerous Essentials of Baccalaureate Education for Professional Nursing Practice (American Association of Colleges of Nursing [AACN], 2008). For example, Essential VIII: Professionalism and Professional Values highlights multiple aspects of LGBTQ patient care. Altruism emphasizes concern and advocacy for the well-being of all involved in healthcare; Autonomy underscores the importance of respecting patients' rights to make their own healthcare decisions; Human Dignity focuses on valuing and respecting the uniqueness of each individual; Integrity is about adhering to ethical standards and being honest; and Social Justice advocates for fair treatment regardless of one's background or personal characteristics (AACN, 2008).

In addition, educational patient simulations follow the healthcare simulations standards of best practice. "Simulation-based experiences are purposefully designed to meet identified objectives and optimize achievement of expected outcomes" (INACSL Standards Committee, 2021). Therefore, the transgender patient simulation's content, delivery, and evaluation was assessed and monitored by qualified simulation faculty. As there is no standardized LGBTQ health education, the patient simulation relied on learning objectives designed for patient

centered care III, encompassing requirements from CCNE and the healthcare simulations standards of best practice.

Design and Subjects

The research method for this project is quasi experimental. A statistical power analysis was performed for sample size estimation with G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007), using and = 0.5, an alpha = .05 and power = 0.95, the a priori t-test: difference between two dependent means of knowledge of comfort gives a projected sample size of 45 for the senior nursing students. There were 62 UNMC senior nursing students available on the Omaha Campus. A standalone transgender patient simulation was initially proposed however due to time constrictions within the undergraduate nursing curriculum the transgender patient simulation was integrated into an already established prioritization simulation for the Patient Centered Care III (PCC III) class. A high-fidelity mannequin patient simulation for the transgender patient simulation was chosen due to allotted resources and positive learning outcomes attributed to high-fidelity simulations (Figure 3). All students enrolled in PCC III participated in the prioritization simulation which involved prioritizing and distributing care amongst a group which included the transgender patient simulation scenario; there was no participant randomization. Prior to participating in the simulation students were asked to watch, “We are Here: A Transgender Training Video for Healthcare Professionals” created by the Mandala Center for Change.

Tools/Measures and Data Collection

Students completed the simulation in the UNMC College of Nursing Learning Resource SIM center with faculty. Prior to the transgender patient interaction, the adapted Sexual

Orientation Counselor Competency Scale (SOCCS) version 3 (Figure 4) was released to students via Canvas, an online learning and teaching platform, to establish a baseline about students' attitudes, beliefs, knowledge, experience and clinicals skills regarding transgender care. The SOCCS version 3 is transgender specific and adapted for use in the healthcare setting. The SOCCS is a reliable and valid assessment with 29 questions utilizing a 7-point Likert scale (Figure 5). The reliability for the overall SOCSS scale as well as the Attitude, Skills, and knowledge subscales were .90, .88, .91, and .76, respectively (Bidell, 2015). One-week test–retest reliability correlation coefficients were .84 for the overall SOCCS, .85 for the Attitudes subscale, .83 for the Skills subscale, and .84 for the Knowledge subscale. Higher survey scores indicate a greater level of transgender care competency. To evaluate the effectiveness of the transgender health education on nursing students' attitudes, beliefs, knowledge, and competence, the SOCCS was administered using a QR code pre and post intervention. Students created their own unique four-digit pin code during the pre-simulation survey. Students reentered their unique pin code on the post simulation survey allowing for anonymity and data comparison. The pre and post survey scores were compared to determine if students' knowledge surrounding transgender patients improved illustrated by a higher SOCCS score.

Analysis

Missing data and data normality was evaluated. For summated scales on which fewer than 20% of an individual's responses are missing, the individual's mean on the remaining items was substituted, as appropriate. Each statistical test was conducted at p=.05 level. Data was analyzed using descriptives (frequencies, means, medians, standard deviations of scores). Negatively worded questions were reverse scored so that all high scores could be interpreted as

a positive outcome. Pre and post-test scores of the adapted SOCCS version 3 were compared with paired t-test. Relationships between demographic variables, groups, and outcomes were assessed with correlational and chi-square methods, as appropriate.

Findings

Of the 62 nursing students enrolled in patient centered care III, 62 (100%) completed the pre simulation survey and 48 (77.4%) completed the post simulation survey. A sensitivity analysis on the pre-SIM scores, showed that there was not a significant difference between those who completed time 2 (mean = 77.4, standard deviation (SD) = 7.7) and those who did not (mean = 78.5, SD= 9.1).

While, students scored high overall on the pre-SIM survey, indicating positive attitudes and beliefs for the LGBTQ community, analysis from a paired sample *t*-test revealed there was not a significant overall improvement from pre-SIM (mean=77.4, SD=7.7) to post-SIM (mean=79.3, SD=8.5), t(44)=-1.0909), *p*=.063, *d*= .285. While there was an increase in a number of the items, there was a statistically significant improvement in only one item, about receiving adequate clinical training to work with transgendered clients/patients, *t*(44)=-3.518, *p*=.001, *d*=0.524.

Many items showed a ceiling effect, for example, 19 of 44 (42%) students answered a '7' the highest rating possible at baseline when asked about their awareness of mental illness diagnoses, making it impossible to raise their score in this area. Students post simulation

reported higher scores regarding adequate training, experience level, competence, and ability to therapeutically assess a transgender patient.

Discussion

Despite documented evidence regarding LGBTQ healthcare disparities, LGBTQ health education remains deficient within undergraduate nursing curriculum. Studies utilizing patient simulation scenarios have shown promise in improving nursing students' knowledge, attitudes, and skills in providing culturally sensitive care to LGBTQ patients. Studies utilizing standardized patients or high-fidelity mannequins have reported positive outcomes, including increased confidence, improved assessment and communication skills, and enhanced awareness of transgender care needs. While an overall statistical effect was not seen in this intervention a small-medium clinical effect size was seen. Also, a medium clinical effect size was seen in addition to the statistically significant increase of students who reported receiving adequate clinical training to work with transgendered clients/patients.

It is necessary to acknowledge limitations in the existing literature, including small sample sizes, lack of randomization, and short-term follow-up. These limitations were also seen in this study where there was significant attrition and observable stress from the simulation seen in the students and ceiling effects of the current tool. There were also issues with fidelity to the intervention. The majority of students watched the instructional video before completing the pre-test which may have contributed to the ceiling effect, and there was difficulty pairing subjects on six responses. Additionally, while educational interventions have

demonstrated improvements in students' knowledge and attitudes, their long-term impact on clinical practice and patient outcomes remains unclear.

The findings suggest that while educational interventions can enhance nursing students' confidence and readiness to provide LGBTQ-affirming care, further research is needed to evaluate the effectiveness of these interventions in real-world clinical settings. Additionally, efforts to standardize LGBTQ health education curricula and incorporate principles of cultural safety are essential to ensure nurses are adequately prepared to meet the diverse needs of LGBTQ patients.

Conclusion

In conclusion, the study of nursing students enrolled in patient-centered care III revealed significant insights into the effectiveness of educational interventions regarding LGBTQ-affirming care. While the pre-simulation survey demonstrated positive attitudes and beliefs towards the LGBTQ community, indicating a strong foundation, the post-simulation survey revealed notable improvements, particularly in areas related to adequate training, experience, and comfort level in caring for LGBTQ patients.

Despite statistically significant differences in specific survey questions, the overall effect size was determined to be small, suggesting that while there were improvements, they might not have been substantial enough to produce significant clinical changes. This underscores the need for further research to assess the long-term impact of educational interventions on clinical practice and patient outcomes. The study also highlights the ongoing deficiency in LGBTQ health education within undergraduate nursing curriculum, despite documented healthcare disparities.

While patient simulation scenarios show promise in enhancing students' knowledge, attitudes, and skills, limitations in existing literature, such as small sample sizes and lack of long-term follow-up, indicate the need for more robust studies.

Moving forward, efforts to standardize LGBTQ health education curricula and integrate principles of cultural safety (Figure 1) are crucial to ensure that nurses are adequately prepared to address the diverse needs of LGBTQ patients in real-world clinical settings. This study serves as a foundation for further exploration and development of educational interventions aimed at promoting LGBTQ-affirming care among nursing students and healthcare professionals.

Significance and Sustainability

The successful implementation of the high-fidelity transgender patient simulation has resulted in significantly improved confidence and competence among undergraduate nursing students in providing care for LGBTQ patients. Through tailored educational interventions and practical simulations, students gained essential skills and knowledge to deliver affirming and culturally competent care. Moreover, the favorable feedback from faculty indicates that Penny Davis, the high-fidelity transgender patient simulation, will be integrated into the curriculum of UNMC College of Nursing.

This achievement holds profound implications for both nursing education and the LGBTQ community. By equipping future nurses with the necessary skills and confidence to address the unique needs of LGBTQ individuals, our project contributes to reducing healthcare disparities and fostering inclusivity. Furthermore, the project’s sustainability ensures

transgender patients will receive respectful, culturally competent care as UNMC's partner Nebraska Medicine expands their gender affirming care.

Recommendations

Based on the extensive literature review and the findings of the study, several recommendations can be made to address the deficiencies in undergraduate nursing education and improve the provision of LGBTQ-affirming care. There is a clear need for standardized LGBTQ health education content within undergraduate nursing curricula. Nursing programs should develop comprehensive and standardized content that covers LGBTQ health disparities, cultural competence, and specific clinical skills needed to provide affirming care to LGBTQ patients.

Patient simulations, particularly those involving LGBTQ scenarios, have shown to be effective in improving nursing students' knowledge, attitudes, and skills. Therefore, the UNMC College of Nursing undergraduate nursing program should consider integrating LGBTQ patient simulations into their curricula and can begin this by utilizing the Penny Davis simulation scenario into the PCC III curriculum as an independent simulation to provide students with practical experience in using gender-affirming language and care with the end goal of delivering culturally competent care to LGBTQ individuals.

Faculty members should receive training and support in delivering LGBTQ health education and facilitating LGBTQ patient simulations. This includes ongoing professional development to ensure faculty members are equipped with the necessary knowledge and skills to effectively teach LGBTQ-related content. Nursing programs should receive institutional support to implement LGBTQ health education initiatives. This may involve advocating for

policy changes at the institutional level to prioritize LGBTQ health education and create a supportive environment for LGBTQ students and faculty.

Future research should focus on conducting long-term follow-up studies to evaluate the impact of LGBTQ health education initiatives on nursing practice and patient outcomes. This will provide valuable insights into the sustainability and effectiveness of educational interventions in improving LGBTQ-affirming care. Nursing programs should collaborate with LGBTQ community organizations or university organizations such as the Gender and Sexuality Resource Center to ensure that educational initiatives are informed by the needs and perspectives of LGBTQ individuals. This partnership can also facilitate clinical placements and experiential learning opportunities in LGBTQ-affirming healthcare settings.

The Cultural Safety framework for LGBTQ communities should guide the development and implementation of LGBTQ health education initiatives within the undergraduate nursing program. This framework emphasizes the importance of forming partnerships with patients, understanding their unique experiences, and promoting inclusivity and equity in healthcare delivery. By implementing these recommendations, nursing programs can play a crucial role in addressing the healthcare disparities faced by LGBTQ individuals and fostering a more inclusive and affirming healthcare environment for all.

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Appendix

Table 1. Level of Evidence

Level of evidence	Study design
I	Systematic reviews and meta-analysis of RCT
II	RCT
III	Non-randomised controlled trial (quasi-experiment)
IV	Case–control or cohort studies
V	Systematic reviews of qualitative or descriptive studies
VI	Qualitative or descriptive studies
VII	Opinion of authorities and/or reports of expert committees

RCT, randomised controlled trials.

Table 2. Quality of Evidence

Quality of evidence	Definition	Symbol
High quality	Further research is very unlikely to change our confidence in the estimate of effect	⊕⊕⊕⊕
Moderate quality	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate	⊕⊕⊕◯
Low quality	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate	⊕⊕◯◯
Very low quality	Any estimate of effect is very uncertain	⊕◯◯◯

Adapted from Guyatt et al.[1]

Figure 1. Cultural Safety Framework for LGBTQIA+ Communities

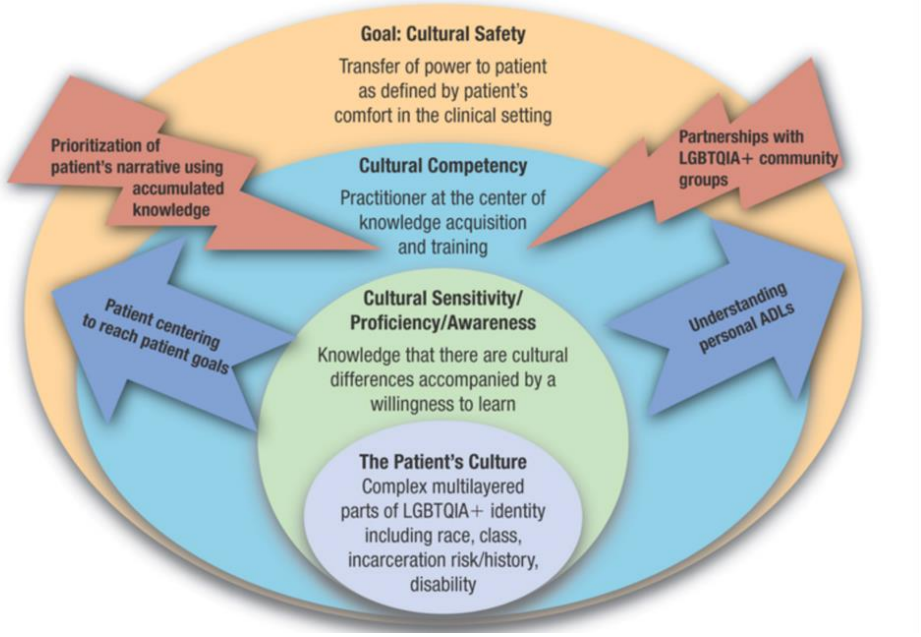

Figure 2. GANTT Chart

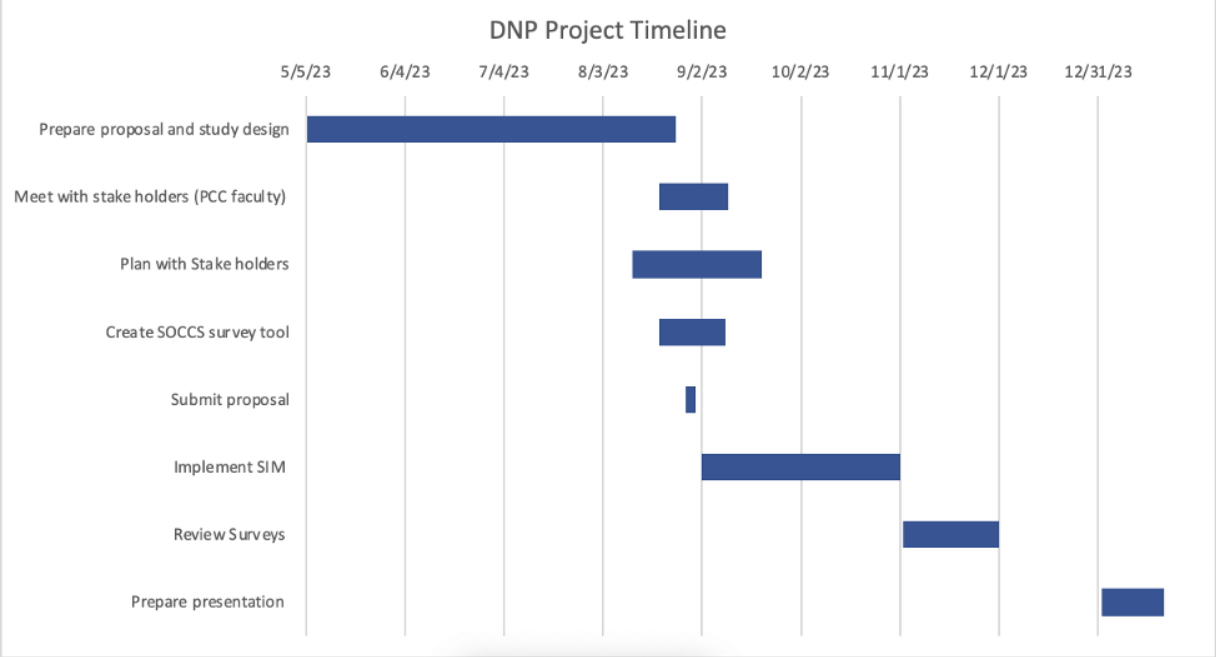

Figure 3. SBAR Report for Transgender Patient Simulation

SBAR Report

Penny Davis (legal name Peter Davis) is 25-year-old transgender male to female (pronouns she/her) who was admitted to the medical surgical floor at 1500 status post breast augmentation surgery. The patient has two JP drains bilaterally (inferior to incisions) with minimal serosanguinous output. RN 1 and RN 2 (primary and backup nurses) receive reports that the patient has been stable and received pain medication within the last hour for moderate to severe incisional pain. The patient has orders to ambulate.

Background

Past Medical History: Hormone therapy since 2020, former smoker (quit 3 months ago), gender dysphoria

Past Surgical History: Tonsillectomy/ Adenoidectomy 2008
Allergies: NKMA

Home Medications:
-Estrogen (Estradiol) 2 mg daily
-Spironolactone 50 mg BID
-Progesterone 2.5 mg QHS

Assessment

IV of Normal saline running at 25ml/hour
First dose of Ancef due now

Recommendation

Orders:

Maintain IV 0.9% NaCl at 25ml.hour.
Due now: Cefazolin (Ancef) 2g in NS 50 mL bag Q8hr for 24 hours - 100mL/hr over 30 minutes
Due at 1800:
Estrogen (Estradiol) 2 mg daily
Spironolactone 100 mg BID (do not give am dose)
Progesterone 2.5 mg QHS

PRN:

Oxycodone 5 mg every 6 hours as needed for moderate to severe pain
Morphine IV 4mg every 4 hours as needed for severe pain
Acetaminophen 1000 mg every 6 hours
Zofran 4 mg IV every 6 hours as needed for nausea and vomiting

Vital signs every 4 hours
Diet: clear liquid advance diet as tolerated per RN discretion
Activity: Ambulate TID, OOB as tolerated
SCDs
O2 1-6 liters/min per nasal cannula to maintain SpO2 ≥ 92%
Incentive spirometer hourly while awake
Routine I&O

Figure 4. Adapted Survey from The Sexual Orientation Counselor Competency Scale Version 3

Pre Simulation Survey

* Required

1. Please enter a unique 4 digit PIN. You will use this number again after the simulation *

Enter your answer

2. Did you watch We Are Here: A Transgender Training Video for Healthcare Professionals? *

- ◯ Yes
- ◯ No

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

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

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

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

5. The lifestyle of a transgender individual is unnatural. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

6. I have experience working with transgender clients/patients. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

7. Transgender clients/patient receive less preferred forms of clinical treatment than non-transgender individuals. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

8. I have experience working with transgender couples and/or families. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

9. I am aware some research indicates that transgender individuals are more likely to be diagnosed with mental illnesses than are non-transgender individuals. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

10. Being highly discreet about their gender identity and expression is a trait that transgender individuals should work towards. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

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

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

12. It would be best if my clients/patients viewed traditional gender expression as ideal. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

13. I am aware of institutional barriers that may inhibit transgender people from using healthcare services. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

14. My clients/patients should accept some degree of conformity to traditional gender roles and expression. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

15. Transgender individuals will benefit most from a provider endorsing conventional values and norms about gender. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

16. Gender identity differences between providers and clients/patients may serve as an initial barrier to effective clinical care with transgender individuals. *

- ◯ 1- Not at all True
- ◯ 2
- ◯ 3
- ◯ 4- Somewhat True
- ◯ 5
- ◯ 6
- ◯ 7- Totally True

17. I think being transgender is a mental disorder. *

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

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

- 1- Not at all True
- 2
- 3
- 4- Somewhat True
- 5
- 6
- 7- Totally True

Figure 5. The Sexual Orientation Counselor Competency Scale Version 3

S.O.C.C.S. – Assessment (Version 3)

Instruction: Using the provided scale, rate the truth of each item as it applies to you. It is important to provide the most candid response, often your first one.

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

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

2. The lifestyle of a transgender individual is unnatural.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

3. I develop my clinical skills regarding transgender clients/patients via consultation, supervision, and continuing education.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

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

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

5. Transgender clients/patients receive less preferred forms of clinical treatment than non- transgender individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

6. At this point in my professional development, I feel competent, skilled, and qualified to work with transgender clients/patients.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

7. I have experience working with transgender couples and/or families.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

8. I have experience working with male to female transgender individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

9. I am aware some research indicates that transgender individuals are more likely to be diagnosed with mental illnesses than are non-transgender individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

10. A transgender person is not as psychologically stable as a non-transgender person.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

11. Being highly discreet about their gender identity and expression is a trait that transgender individuals should work towards.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

12. I have been to professional in-services, conference sessions, or workshops focusing on transgender issues.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

13. Prejudicial concepts about gender have permeated the health professions.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

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

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

15. Transgender people don't need special rights (e.g., employment, marriage, housing, or legal).

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

16. There are different issues (i.e., psychosocial, medical) impacting male-to-female versus female-to-male transgender individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

17. It would be best if my clients/patients viewed traditional gender expression as ideal.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

18. I have experience working with transgender female to male individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

19. I am aware of institutional barriers that may inhibit transgender people from using healthcare services.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

20. I am aware that healthcare practitioners impose their values concerning gender upon transgender clients/patients.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

21. My clients/patients should accept some degree of conformity to traditional gender roles and expression.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

22. Currently, I do not have the skills or training to do a case presentation or consultation if my client/patient were a transgender individual.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

23. Transgender individuals will benefit most from a provider endorsing conventional values and norms about gender.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

24. Being born a non- transgender person in this society carries with it certain advantages.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

25. Gender identity differences between providers and clients/patients may serve as an initial barrier to effective clinical care with transgender individuals.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

26. I have done a training role-play involving a transgender clinical issue.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

27. I think being transgender is a mental disorder.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

28. Transgender individuals must be discreet about their gender identity and expression around children.

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7

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

Not at all True			*Somewhat True*			*Totally True*
1	2	3	4	5	6	7