TRANSFORMING CARE:

A GENDER-AFFIRMING CARE SIMULATION STUDY

A Dissertation Presented for the

Doctor of Philosophy

Degree

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DEDICATION

This work is dedicated to transgender and gender non-conforming individuals—past, present, and future.

I see you.

I support you.

I will continue to fight for you.

May this work, and the collective efforts of all of us, contribute to a more just, affirming, and inclusive world. A world where your voices are heard, your identities are honored, and your healthcare reflects our humanity.

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To the Advisory Board of transgender individuals: thank you for your trust, honesty, and wisdom. Your voices shaped the heart of this project. This work exists because of your courage and willingness to collaborate in the spirit of advocacy and transformation.

Thank you to the clinical instructors and students who engaged with this simulation. Your insight and participation brought this work to life and grounded it in real-world impact.

If you are interested in utilizing the simulation scenario and script developed through this study, I would be honored to share it. Please contact me directly for more information.

ABSTRACT

Transgender and gender non-conforming (TGNC) individuals experience significant health disparities, often stemming from bias, stigma, and a lack of provider education regarding gender-affirming care. Despite growing societal awareness, nursing curricula continue to under-prepare students to provide culturally congruent, gender-affirming care. This dissertation, presented in manuscript format, explores a pilot study integrating simulation-based education including TGNC standardized patients to improve nursing student attitudes and beliefs toward TGNC individuals.

Chapter 1 introduces the problem, highlighting the specific gap in nursing education, which is the lack of TGNC-focused content, and the urgent need to address disparities in care for TGNC individuals. Chapter 2 presents an integrative review of the literature, revealing both the lack of TGNC-focused content in baccalaureate nursing programs and the effectiveness of simulation as an educational intervention. Chapter 3 provides an analysis of Rivera's Gender-Affirming Nursing Care (GANC) model, a prescriptive middle-range theory grounded in cultural humility, therapeutic relationships, and inclusive engagement. This framework guided the development and implementation of the simulation.

Chapter 4 describes the findings of a mixed-methods study involving thirteen nursing students who participated in a gender-affirming simulation. Quantitative data were collected using the Transgender Attitudes and Beliefs Scale (TABS) before and after the simulation. Results indicated statistically significant improvements in interpersonal comfort and sex/gender beliefs. Qualitative analysis of focus group debriefings revealed four key themes: increased comfort and confidence, power of authentic representation, enhanced empathy through lived experience, and commitment to inclusive and respectful practice. Students consistently emphasized how working

with TGNC-standardized patients enhanced realism, empathy, and their commitment to inclusive care.

Chapter 5 concludes by synthesizing the study's contributions to nursing education, theory, and practice. The findings support including TGNC standardized patients in simulation to promote affirming care, deepen students' reflections, and prepare future nurses to meet the needs of diverse populations. This work advances equitable, patient-centered nursing education and calls for broader implementation of inclusive simulation experiences grounded in relational and reflective frameworks.

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CHAPTER ONE: INTRODUCTION

The healthcare needs of transgender and gender-nonconforming (TGNC) individuals have historically been overlooked or inadequately addressed within the medical community (Bhatt et al., 2022; Eickhoff, 2021). This population faces significant health disparities, including higher rates of mental health issues, substance abuse, and barriers to accessing competent and respectful healthcare (Abeln & Love, 2019). A critical barrier to progress in this field is the lack of comprehensive education and training for healthcare professionals about providing gender-affirming care (Altmiller et al., 2022; Diaz et al., 2017). Nursing students often receive insufficient training in this area, leading to a gap in the knowledge and skills necessary to provide gender-affirming care (Bhatt et al., 2022; Koch et al., 2021). This dissertation addresses that gap by implementing a simulation-based training program specifically designed to enhance nursing students' levels of competence and confidence in delivering gender-affirming care to TGNC individuals.

Significance

The American Psychological Association (APA, 2015) defines gender as attitudes, feelings, and behaviors that a given culture typically associates with an individual's biological sex. This definition is crucial in understanding the complex issue of gender diversity in healthcare. Health research often reinforces a binary concept of gender, which can be seen in the way sex and gender (often used interchangeably) are represented as male/female, men/women, or boys/girls in research that involves human participants (Lightfoot et al., 2021). This approach effectively erases participants who identify between or outside these binary categories, which is a growing population known as TGNC (Bhatt et al., 2022; Lightfoot et al., 2021). TGNC is an

umbrella term for individuals whose gender expression, identity, and/or role differs from gender norms associated with their biological sex (APA, 2015).

The marginalization of TGNC individuals in healthcare is exacerbated by cisnormativity, which is the assumption that being cisgender is what is normal and expected (Lightfoot et al., 2021). Cisgender refers to individuals whose gender expression, identity, or role matches gender norms associated with their biological sex (APA, 2015). In the United States, 1.6 million individuals 13 years of age and older identify as TGNC (Herman et al., 2022). The falsehood that TGNC individuals are uncommon leads to cisnormativivity, which can be exhibited as binary gender markers on forms, billing, and medical records (Lightfoot et al., 2021). Nurses who work within this cisnormative environment receive little to no education about providing gender-affirming care to TGNC individuals (Altmiller et al., 2022; Diaz et al., 2017). This lack of education and understanding adversely impacts the healthcare experiences of TGNC individuals, highlighting the need for change in nursing education.

Gender-affirming care refers to medical, psychological, and social support provided to individuals seeking to align their gender identity with their outward appearance and lived experience (Bhatt et al., 2022; Lightfoot et al., 2021; Rivera et al., 2022). This holistic approach acknowledges the diversity of gender identities and aims to alleviate the distress often associated with gender dysphoria. By providing access to services such as hormone therapy, surgery, counseling, and support groups, gender-affirming care plays a crucial role in promoting the well-being, dignity, and autonomy of TGNC individuals. Additionally, Lightfoot et al. (2021) indicate that access to gender-affirming care correlates with significantly improved mental health outcomes, reduced rates of suicide, and enhanced overall well-being among TGNC individuals. This reassures us about the positive impact of gender-affirming care, instilling optimism about

the outcomes. When individuals are supported in their gender identity, they are more likely to thrive, contributing positively to their communities and workplaces.

Gaps in Knowledge

Current practices in education for nursing students about gender-affirming care significantly lack depth and breadth. Despite the increasing recognition of the unique healthcare needs of TGNC individuals, many nursing programs still do not provide comprehensive training on this critical subject (Eickhoff, 2021; Koch et al., 2021). Existing curricula often fail to cover the full spectrum of gender-affirming care, from basic concepts of gender identity and expression to the specific medical and psychological needs of TGNC patients (Altmiller et al., 2022; Diaz et al., 2017; Koch et al. 2021). Additionally, traditional teaching methods that rely heavily on lectures and textbooks do not adequately prepare students to provide gender-affirming care to this population. As a result, many nursing graduates enter the workforce without the necessary knowledge, skills, and confidence to deliver effective gender-affirming care, perpetuating health disparities and contributing to suboptimal health outcomes for TGNC individuals (Bhatt et al., 2022; Eickhoff, 2021; Koch et al., 2021). Conversely, experiential learning opportunities enhance students' understanding of gender-affirming care, ensuring they are better prepared to meet the unique healthcare needs of TGNC patients.

Several researchers have attempted to address the gap in education about gender-affirming care by employing various innovative methods, including virtual simulations, role-play, and hands-on simulation exercises (Altmiller et al., 2022; Diaz et al., 2017; Koch et al., 2021). These approaches have shown promise in enhancing students' clinical skills and sensitivity toward TGNC patients (Eickhoff, 2021; Diaz et al., 2017; Koch et al., 2021). However, many of these methods have been limited by the lack of direct input and participation

from members of the TGNC community. Often, the role-plays and simulations featured fellow students or cisgender standardized patients portraying TGNC individuals, which can lead to inauthentic and potentially stigmatizing representations. A standardized patient is a trained individual who consistently simulates real patients' medical conditions, symptoms, and histories for educational and assessment purposes. The absence of the genuine voices and lived experiences of TGNC individuals reduces the realism of these educational interventions. Incorporating TGNC individuals as standardized patients in simulations makes the training more authentic and impactful. This inclusion ensures that scenarios accurately reflect the lived experiences, challenges, and healthcare needs of the TGNC community.

Purpose of the Study

This dissertation study aimed to improve gender-affirming care education for nursing students by incorporating TGNC individuals into every stage of the simulation process. While previous efforts have introduced role-play, virtual simulations, and standardized patient encounters to teach gender-affirming care, those efforts have often lacked authentic representation of TGNC individuals. Without this firsthand perspective, students may not gain the depth of understanding needed to provide gender-affirming care.

To address this gap, this dissertation study ensured that voices of TGNC individuals played a central role in developing, implementing, and evaluating the simulation experience. TGNC individuals helped co-design the case scenario to ensure its accuracy and relevance, served as standardized patients to provide realistic interactions, and participated in debriefing sessions to offer direct feedback to students. They also participated in post-simulation discussions, helping to refine and improve future simulations through structured reflection. Ultimately, we sought to determine whether including TGNC individuals in simulations

enhanced the overall authenticity and effectiveness of gender-affirming care education, better preparing future nurses to meet the needs of TGNC patients.

Manuscripts

This dissertation consists of three manuscripts that together provide a thorough exploration of gender-affirming care education in nursing. Each manuscript serves a distinct purpose: identifying gaps in current nursing education, analyzing a theoretical model that supports gender-affirming nursing practice, and evaluating the outcomes of a simulation-based learning approach. By addressing these areas, the dissertation aims to enhance nursing students' preparedness to provide competent gender-affirming care for TGNC patients.

The first manuscript is a literature review that examines the current state of education about gender-affirming care in nursing programs. It highlights key deficiencies in existing curricula, particularly the limited involvement of TGNC individuals in teaching strategies. These gaps contribute to lower competence levels among providers and reinforce the health disparities that TGNC patients frequently experience. This literature review establishes the pressing need for nursing programs to adopt educational strategies that enable students to engage more meaningfully with gender-affirming care.

The second manuscript analyzes Rivera’s Gender-Affirming Nursing Care Model (2022) and its relevance to nursing education. It examines how the theory offers a structured approach to supporting TGNC patients through affirming communication, inclusive care practices, and nurse advocacy. By applying this theory within an educational context, the manuscript demonstrates how conceptual frameworks can shape nursing curricula and better prepare students to provide competent, affirming care.

The third manuscript presents the results of a gender-affirming care simulation pilot study that integrates the voices of TGNC individuals at every stage of the learning experience. Unlike previous studies that relied on role-play or cisgender standardized patients, this study involved TGNC individuals in development of the scenario, simulation sessions, debriefing discussions, and post-simulation evaluations. The findings explore how this approach influences nursing students' attitudes, beliefs, and preparedness in providing gender-affirming care. The manuscript also examines how firsthand feedback from TGNC participants enhances student learning and highlights the importance of authentic representation in nursing education.

Together, these three manuscripts provide a comprehensive perspective on gender-affirming care in nursing education. The literature review identifies the problem and illustrates the need for improved teaching methods, the theory analysis lays out a framework for implementing gender-affirming practices, and the research study evaluates the effect of a simulation model that emphasizes authenticity and lived experiences. By linking these elements, this dissertation presents both a critical examination of the current limitations in nursing education and a research-driven approach to enhancing student preparedness to care for TGNC patients.

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CHAPTER TWO: PREPARING BACCALAUREATE NURSING STUDENTS IN GENDER-AFFIRMING CARE: AN INTEGRATIVE REVIEW

A version of this chapter was originally submitted to the *International Journal of Transgender Health* by Edward D. Petrie and Joel G. Anderson. The required citation format for this journal is that of the American Psychological Association, 7th Edition.

Abstract

Background: The transgender and gender non-conforming (TGNC) community faces significant healthcare disparities, yet nursing and healthcare curricula fail to address the unique healthcare needs of this community adequately. As a result, nurses and other healthcare providers often lack the knowledge and skills to provide quality care for TGNC individuals.

Purpose: In this integrative review, I sought to examine the literature pertaining to baccalaureate nursing students' current curriculum and educational interventions related to TGNC care.

Method: Whittemore and Knafl's updated integrative review methodology was used to offer a clear picture of the current state of the science of baccalaureate nursing students' education regarding the care of TGNC individuals. By taking an integrative approach, the full potential of the available literature can be realized by including the researcher's findings from all types of studies and designs.

Results: The analysis identified two prominent themes: the first pertaining to the adequacy of the current nursing curricula addressing TGNC care and the second regarding potential educational interventions to enhance nursing education in this area.

Conclusion: Overall, the findings from this integrative review offer a valuable perspective on the literature regarding nursing education about gender-affirming care for TGNC individuals. Nursing students must receive education and exposure to provide culturally congruent and affirming care for this population.

Introduction

In the United States, 1.6 million individuals 13 years of age and older identify as transgender or gender-nonconforming (TGNC) (Herman et al., 2022). TGNC is an umbrella term encompassing individuals whose gender identity does not match the sex assigned to them at birth (APA, 2015). To provide holistic patient-centered care, nurses must possess competence in gender-affirming care. Gender-affirming care is a range of medical, psychological, and social services designed to support and affirm an individual's gender identity, including hormone therapy, surgeries, counseling, and social support measures (Rivera et al., 2022). Establishing nursing competence in gender-affirming care will help foster successful nurse-patient relationships by engaging in interaction without bias and affirming the patient's identity. Future nurses will be prepared to care for TGNC individuals by including education about gender-affirming care in nursing curricula. In this integrative review, I sought to examine the literature pertaining to baccalaureate nursing students' current curricular and educational interventions regarding TGNC care to make recommendations for future nursing education.

Problem

TGNC individuals face significant healthcare disparities that result in poorer health outcomes and difficulties accessing healthcare. These disparities are due to various factors, including discrimination, biases, stigma, inadequate education for healthcare providers, and limited access to affordable gender-affirming healthcare services (Bonvicini, 2017; Diaz, 2017; Eickhoff, 2021; Elertson & McNiel, 2021; Hand & Gedzyk-Nieman, 2022; Lim et al., 2015; McEwing, 2020; McKay et al., 2022; Rivera et al, 2022; & White et al., 2015). For example, researchers suggest TGNC individuals are more likely to experience mental health issues such as anxiety, depression, substance abuse, and suicide than the general population (Diaz, 2017;

Elertson & McNiel, 2021; Hand & Gedzyk-Nieman, 2022; McEwing, 2020; & McKay et al., 2022). Additionally, they may face barriers to accessing essential healthcare services such as preventative screenings and routine care (Diaz, 2017; Elertson & McNiel, 2021; Hand & Gedzyk-Nieman, 2022; McEwing, 2020; & McKay et al., 2022). Addressing these disparities requires a multi-faceted approach, including improving education for healthcare providers, increasing access to gender-affirming healthcare services, and addressing systemic discrimination and stigma within healthcare and society.

In recent years, there has been a concerning trend of political attacks on TGNC people, resulting in several states prohibiting or limiting access to best-practice medical care for TGNC youth (MAP, 2022). The American Nurses Association (ANA) firmly rejects any laws or policy measures that impose limitations on TGNC healthcare, or that criminalize gender-affirming care (ANA, 2022). According to Kano et al. (2019), TGNC individuals are less likely to disclose their sexual orientation and/or gender identity when uncomfortable with their healthcare providers, leading them to not seek preventative or urgent care. Therefore, it is imperative to educate future nurses on the best-practice medical care for TGNC individuals to understand how these discriminatory laws prevent holistic care for our patients.

Society is progressing to the point where more individuals are comfortable talking about their sexual orientation and/or gender identity. However, Bonvicini (2017) suggests that despite the research gains in TGNC healthcare disparities made during the past fifteen years, education and training in gender-affirming care for healthcare professionals remains lacking. As a result, healthcare providers who care for TGNC individuals lack the education and training needed to reduce their bias toward the TGNC community. These biases may be either explicit or implicit. Explicit biases are attitudes and beliefs that are consciously accessible and controlled, whereas

implicit biases are automatic responses that occur outside conscious awareness (Burke et al., 2015).

The TGNC community faces significant healthcare disparities, yet nursing curricula fail to adequately address the unique healthcare needs of this population (Bonvicini, 2017). As a result, nurses and healthcare providers often lack the knowledge and skills needed to provide quality care for TGNC individuals (White et al., 2015). A study conducted by Lim et al. (2015) found less than one-third of nursing faculty in baccalaureate programs reported having a comprehensive understanding of TGNC health issues. This lack of preparation leaves nurse educators feeling unprepared to address the needs of the TGNC community. Therefore, it is essential to introduce education about gender-affirming care in nursing schools to ensure future nurses have the core competencies necessary to provide holistic care to individuals of all gender identities. According to White et al. (2015) and Bonvicini (2017), developing a knowledge base of health disparities experienced by the TGNC community is a critical first step in building empathy and understanding among future nurses.

Methods

Study design

An integrative review is a specific methodology that effectively synthesizes previous empirical and theoretical literature to better understand a specific phenomenon or healthcare issue (Broome, 1993). Whittemore and Knafl's (2005) updated integrative review methodology ***(Table 2.1, See Appendix)*** was utilized to offer a clear picture of the current state of the science of baccalaureate nursing students' education regarding the care of TGNC individuals. By taking an integrative approach, the full potential of the available literature can be realized by including findings from all types of studies.

Search method

The search occurred in February 2024 and was limited to publications between January 2014 and February 2024 using the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and PubMed databases with the following key search words and terms: "transgender," "care," "nursing," and "education." Manipulation occurred by forming Boolean building blocks "NOT surgery" and "NOT hormone" to narrow the search. Inclusion criteria comprised peer-reviewed publications in English from sources relevant to TGNC care in nursing education.

Search outcome

Initial searches produced 248 publications from CINAHL and 145 from PubMed, with three additional articles identified during manual investigation of references. The results from the two databases were cross-referenced for duplication, with 103 publications remaining. To further refine the search, cases involving hormone replacement and gender confirmation surgery were omitted, removing 83 publications and leaving 20 publications for screening to ensure alignment with the aim of the integrative review. Following this process, 13 publications were deemed relevant.

Results

Data evaluation

The integrative review included 13 high-quality studies ***(Table 2.2, See Appendix)***. These studies were selected based on their relevance to TGNC care and the extent to which the findings contributed to the overall understanding of educating baccalaureate nursing students on TGNC care. Each study was subjected to a meticulous analysis, which involved identifying key themes, extracting relevant data, and synthesizing the findings to generate this integrated review.

Data analysis

The literature was meticulously scrutinized to ensure a rigorous analysis, identifying commonalities and patterns across the studies. By methodically grouping similar data into coherent themes, an understanding of the subject matter was attained, enabling the identification of key trends and patterns in the available literature. The analysis revealed two prominent themes: adequacy of the current nursing curriculum addressing TGNC care (n = 6) and potential educational interventions to enhance nursing education in this area (n = 7).

Current nursing curricula addressing TGNC care

The studies by Lim et al. (2015), Eickhoff (2021), White et al. (2015), Bonvicini (2017), Hand and Gedzyk-Niemman (2022), and McKay et al. (2022) collectively highlight significant gaps and deficiencies in current nursing curricula regarding TGNC care. Despite growing recognition of the importance of TGNC health education, these studies underscore the persistent inadequacies in preparing nursing students and educators to address the needs of TGNC patients competently.

In a comprehensive national survey by Lim et al. (2015), over 1,000 nursing educators were polled to assess their perceptions of preparedness for discussing TGNC healthcare in the classroom. The results were concerning, with limited knowledge, experience, and readiness to teach gender-affirming care reported. In addition, the findings revealed that the average amount of time dedicated to lesbian, gay, bisexual, transgender, and queer (LGBTQ) community in the undergraduate nursing curriculum was just 2.12 hours, indicating a significant gap in the knowledge and skills of nurse educators when it comes to providing holistic care for TGNC individuals.

In Eickhoff's (2021) study, a survey on TGNC health education was distributed to all Commission on Collegiate Nursing Education accredited schools. Using a cross-sectional descriptive design, Eickhoff found that nearly two-thirds of the responding schools felt that their graduates were unprepared to care for this population. Additionally, only 38% of the schools believed their faculty had the necessary knowledge to teach this content adequately. These results were consistent with the findings of Lim et al. (2015), which showed most nursing schools taught fewer than five hours of TGNC health-related content. Of concern, 13.3% of schools surveyed did not teach any content related to this population.

White et al. (2015) conducted a large-scale online questionnaire, surveying 9,522 nursing students to evaluate their preparedness for providing care to the TGNC community. While most students felt at ease discussing HIV and sexually transmitted illnesses with this population, only a quarter felt comfortable addressing more sensitive topics such as gender transitioning or sex confirmation surgery. Moreover, most students believed there was room for improvement in TGNC-specific curricula. To supplement their findings, White et al. conducted focus group discussions using semi-structured scripts to explore the participants' preparedness and levels of comfort in caring for TGNC patients. During these discussions, most participants felt comfortable but not fully prepared to care for TGNC individuals. However, one participant expressed discomfort in caring for TGNC patients due to a lack of personal experience with the community.

Bonvicini (2017) conducted a follow-up study almost 15 years after their initial research on lesbian and gay community disparities. Recognizing the need for inclusivity, Bonvicini incorporated the bisexual and TGNC community into the study, an aspect previously overlooked. Unfortunately, despite increasing TGNC-specific research over the years, nursing schools lack

adequate education about TGNC healthcare. Bonvicini's review of leading nursing textbooks showed no practical discussions on sexual orientation or gender identity.

Hand and Gedzyk-Niemman (2022) conducted a national survey of prelicensure nursing students to evaluate their preparedness and comfort levels while caring for LGBTQ patients. This multisite descriptive correlational study utilized a modified version of the LGBTQ Medical Education Assessment tool (Zumwalt et al., 2022) to collect data about students' perceived levels of preparedness and comfort. Results showed only 34% of the participants felt prepared to care for LGBTQ patients, while 49% felt somewhat prepared. However, 55% of the respondents attributed their preparedness to something other than their nursing education.

McKay et al. (2022) conducted a pilot study to assess prelicensure nursing students' attitudes, beliefs, and willingness to provide care for TGNC individuals. Specifically, participants completed the Transgender Attitudes and Beliefs Survey (TABS) (Kanamori et al., 2017), a Willingness to Provide Care Questionnaire developed for the study, and a demographic questionnaire. The results indicate younger generations may be more accepting of TGNC individuals than their older counterparts (McKay et al., 2022), deviating from previously published research that reported increased discrimination and differential treatment of TGNC individuals. Furthermore, approximately 25% of the study participants reported providing nursing care for a TGNC client. Exposure to this content and the opportunity to care for TGNC individuals in a clinical setting may have resulted in more positive attitudes and a willingness to provide nursing care, as observed in the McKay et al. (2022) pilot study.

Educational interventions

The reviewed studies by McEwing (2020), Altmiller et al. (2022), Diaz et al. (2017), Elertson and McNiel (2021), Sherman et al. (2021), Koch et al. (2021), and McMillian-Bohler et

al. (2022) collectively underscore the effectiveness and ongoing challenges of educational interventions aimed at enhancing nursing students' level of competency in providing care for TGNC individuals. These studies highlight innovative approaches, significant improvements in knowledge and attitudes, and the need for continuous development and evaluation of such educational programs.

In 2020, McEwing designed an educational program specifically aimed at enhancing the competency of BSN students in caring for LGBTQ individuals. The program involved 124 students who participated in online modules and a simulation exercise exploring various LGBTQ-related health care topics. To evaluate the program's effectiveness, 108 participants completed surveys pre-intervention, immediately post-intervention, and one month post-intervention. McEwing's analysis showed a significant improvement in TGNC knowledge sub-scores, with scores increasing from pre- (M = 3.97) to post-intervention (M = 5.17); moreover, these scores did not decline significantly one month post-intervention (M = 4.98). A notable strength was utilizing the Sexual Orientation Councilor Competency Scale instrument, a valid and reliable measure for pre- and post-intervention assessments (McEwing, 2020). Additionally, the educational program was built on a theoretical and evidence-based framework. This framework focused on enhancing awareness, skills, and knowledge and provided a context that directly supported the educational program's goals. Despite its strengths, the project had some limitations. Firstly, it was self-contained and implemented only with two cohorts of BSN nursing students. Secondly, matching the time points for data collection was challenging due to the anonymity of the data. Consequently, the means were examined rather than individual responses.

Altmiller et al. (2022) explored the impact of a virtual patient simulation (VPS) on nursing students' attitudes toward TGNC individuals compared with traditional classroom

learning methods. The study utilized the TABS, a validated instrument designed to assess an individual's perspective on TGNC identity (Kanamori et al., 2017). Using a randomized controlled trial, the researchers analyzed data from 126 participants. Although the study did not yield statistically significant results regarding total TABS scores, there were significant findings in the human value subscale in the treatment group, indicating a positive effect of the VPS in affirming the value of TGNC people as individuals in the treatment group. These researchers shed light on the impact of VPS experiences on learner thinking, attitudes, and beliefs, emphasizing the potential of experiential learning in nursing education. Altmiller et al. also highlight the difference in attitudes towards TGNC individuals of senior- and junior-level nursing students, with senior students exhibiting greater receptiveness. However, further research is needed to establish the efficacy of VPS in nursing education and its potential to foster long-term attitudinal change.

In Diaz et al.'s (2017) study, simulation was utilized to promote cognitive and reflective practice and investigate whether simulation could modify perceptions and attitudes toward the TGNC community. Diaz et al. revealed that despite students verbally reporting acceptance of the LGBTQ community to faculty, they often felt uncomfortable addressing sexual orientation and gender identity with patients. This highlights the need for nursing education to significantly change the future of nursing care for the LGBTQ community. Exposing nursing students to the most vulnerable populations through education and simulation could be a powerful tool for achieving this goal. In addition, given that nursing students may have limited exposure to TGNC individuals in clinical settings, simulation offers a safe space for them to examine their beliefs and attitudes toward this community and reflect on their practices.

Elertson and McNiel (2021) conducted a groundbreaking pilot study aimed at enhancing nursing students' understanding and attitudes toward LGBTQ health. Their innovative approach involved the implementation of the highly regarded Students, Staff, and Faculty for Equality (SAFE) training program, which has gained nationwide recognition on college campuses for promoting inclusivity and diversity (Elertson & McNiel, 2021). A comprehensive online survey was distributed to 33 students, and reflective journal entries were shared with individual clinical course instructors, stimulating discussions about the care of LGBTQ individuals during post-clinical conference meetings. The study yielded encouraging results, with senior-level baccalaureate nursing students reporting a positive and enlightening experience accompanied by significant gains in knowledge.

Sherman et al. (2021) aimed to provide an innovative solution to address the gaps in LGBTQ health education among nurse educators and nursing students at Johns Hopkins University. The study evaluated the preliminary efficacy of a TGNC-focused health curriculum using a self-administered online mixed-methods survey. The investigators analyzed pre- and post-intervention data about students' knowledge and attitudes towards TGNC health. Survey data were collected at three crucial time points throughout the accelerated BSN program: at the program's onset, following the introductory webinar presented during the first semester, and after completing the pre-licensure program. Sherman et al. revealed a significant increase in the importance assigned by nursing students to knowing their patient's gender identity, underlining the positive impact of the TGNC health curriculum. However, the initiative faced internal and external limitations, as the researchers could not track individual student progress between time points due to the survey design, and some students may have opted out of non-required content

or missed mandatory content. Additionally, the study's response rate was relatively low, highlighting the need for more focused efforts to increase retention in future studies.

Koch et al. (2021) developed an interactive learning strategy to promote culturally sensitive care for TGNC individuals and their caregivers, utilizing a role-played simulation. The LGBTQ nursing student organization on campus reviewed and provided feedback on the culturally intelligent simulation scenario created by faculty, ensuring inclusive language, clarity, and cultural sensitivity. The simulation featured real people, including student volunteers and faculty, allowing participants to observe and empathize with the challenges TGNC patients and their families face when heteronormative assumptions are made, and inappropriate questions are asked. Nursing students reported that the simulation increased their empathy for patients and their understanding that "family" can be defined in various ways, including by choice rather than biology. While the study focused on one nursing school in the Southeast United States, the findings are relevant to other prelicensure and current healthcare providers. However, the study has limitations, including the lack of an assessment to compare knowledge before and after the intervention and no mention of whether the actors were TGNC or just portraying TGNC roles. Students might have benefited more if TGNC actors were used in the role-play scenario.

McMillian-Bohler et al. (2022) recognized the potential benefits of sharing the lived experiences of pregnant transgender men with nursing students to increase awareness, understanding, and empathy for this underrepresented population. To achieve this, a transgender man shared his pregnancy experiences with students enrolled in a maternity course. Pre- and post-presentation surveys were administered to assess the students' perceptions of working with TGNC patients. During the seminar, the guest speaker shared his pregnancy experiences, including descriptions of inequitable treatment, invasion of privacy, disrespect, and general

mistreatment. Although not explicitly stated as an objective of the seminar, most of the surveyed students reported a significant shift in their perspective about TGNC patients and an increased desire to learn more about providing quality care for pregnant TGNC individuals.

Discussion

TGNC individuals often face stigma and barriers nurses may not be fully aware of, resulting in their unique needs being overlooked. To provide culturally safe and affirming care, nursing students require education and exposure to best prepare them for clinical practice. This integrative review assessed the state of the science of baccalaureate nursing students' preparedness to care for the TGNC community. This review highlighted two significant themes: the adequacy of the current nursing curriculum in addressing TGNC care and potential educational interventions to enhance nursing education in this area.

Care of TGNC individuals remains an underemphasized topic in nursing curricula. Nationwide, baccalaureate nursing schools allocate fewer than five hours on average to LGBTQ health related topics (Lim et al., 2015; Eickoff, 2021), with leading nursing textbooks lacking practical discussions regarding sexual orientation or gender identity (Bonvicini, 2017). This gap not only perpetuates negative attitudes towards the LGBTQ community but also impedes the development of the necessary competencies for providing competent and compassionate care to LGBTQ individuals. Interestingly, Hand and Gedzyk-Niemman (2022) reported an increase in TGNC-related care preparedness among nursing students, but 55% of these students attributed their preparedness to something other than their nursing education. However, McKay et al. (2022) suggest that younger generations may be more accepting of TGNC individuals than their older counterparts. This leads me to believe that current nursing students are more receptive to including TGNC nursing care in the curricula.

The reviewed studies collectively advocate for integrating comprehensive, evidence-based educational interventions in nursing curricula to enhance care for TGNC individuals. Several educational interventions have been explored, including online modules, SAFE seminars, virtual patient simulation, role-play simulation, and storytelling from TGNC patients. These have shown positive results in increasing nursing students' preparedness to care for TGNC patients. Educating future nurses about care for TGNC individuals directly addresses the American Association of Colleges of Nursing's (AACN) essential domain of person-centered care by equipping them with the knowledge and skills to deliver respectful, individualized, and culturally sensitive healthcare tailored to the unique needs of TGNC individuals (AACN, 2021). Integrating these educational interventions into nursing programs would provide a more comprehensive approach to nursing education, emphasizing the importance of culturally safe and affirming care for all patients, regardless of gender identity.

Implications

The findings from the reviewed literature have significant implications for educating baccalaureate nursing students about gender-affirming care for the TGNC community. It is apparent that nurses often lack knowledge of the unique needs of TGNC individuals and are unaware of the stigma and barriers faced by this population. These findings suggest the need for additional education in nursing programs regarding the unique healthcare needs of the TGNC community. Exposing nursing students to the most vulnerable populations through education and simulation could be a powerful tool for achieving this goal. In addition, given that nursing students may have limited exposure to TGNC individuals in clinical settings, simulation offers a safe space for them to examine their beliefs and attitudes toward this community and reflect on their care practices.

Using Rivera's Gender-Affirming Nursing Care Model, educators can effectively develop simulations tailored to gender-affirming care. By incorporating this framework, instructors can create comprehensive educational modules that cover topics such as cultural competence, hormone therapy, surgical options, and the psychosocial aspects of TGNC healthcare. Simulations can provide students with hands-on experience in providing respectful and empathetic care to TGNC patients, fostering a deeper understanding and sensitivity. This approach enhances the students' knowledge and skills and prepares them to deliver high-quality, inclusive care in their future nursing practice.

Finally, nursing programs should evaluate curricula to ensure that health care topics affecting TGNC individuals are thoroughly covered and inclusively taught. These programs also should assess students' perceived preparedness to identify areas of content that require reinforcement. This, in turn, can help reduce the health disparities and discrimination faced by this vulnerable population. These findings can assist in guiding the design of faculty development programs and aligning curricula with current health priorities for the TGNC community. Additionally, nursing schools could consider collaborating with community-based organizations such as SAFE, which specialize in TGNC health, to provide students with hands-on experiences. Overall, this review emphasizes the need for nursing education to incorporate gender-affirming care for the TGNC community. As healthcare professionals, it is crucial to foster an environment that values diversity and promotes equitable healthcare for all patients, regardless of their gender identity.

Conclusion

Overall, this integrative review offers a valuable perspective on the literature regarding nursing education related to gender-affirming care for TGNC individuals. It highlights the

critical need for nursing students to receive education about TGNC health and to interact with TGNC patients to provide culturally safe and affirming care for this population. Additionally, nursing schools should integrate educational interventions emphasizing gender-affirming care into their curricula to enhance students' preparedness for clinical practice. Furthermore, this review underscores the importance of keeping nursing curricula up to date with current health priorities for the TGNC community. Nursing schools should adopt a comprehensive approach to nursing education that includes the unique needs of TGNC individuals, addresses the gap in current nursing textbooks, and accounts for the inadequate time spent on LGBTQ-health related topics nationwide.

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Appendix

Table 2.1 Integrative review methodology

Stage of review	Process
Problem identification	The review begins with clearly identifying the problem and the intended purpose. Additionally, the variables of interest, such as the target population, concepts, and healthcare problems, are carefully selected. Finally, the appropriate sampling frame is established by the type of empirical studies and the inclusion of a theoretical framework
Literature Search	A well-defined literature search strategy is critical for enhancing the rigor and precision of any review. Conversely, vague and biased searches can lead to an insufficient database and the possibility of inaccurate results, underscoring the necessity of a thorough search approach
Data evaluation	Evaluating the quality of primary sources in an integrative review is a multifaceted task that requires careful consideration. To ensure the highest level of accuracy and credibility, it is essential to address the quality of primary sources in a meaningful manner
Data analysis	Extracted data are compared, enabling the identification and grouping of similar data. Additionally, these grouped data are compared furthering the analysis process
Presentation (Implications)	The results obtained from the review encapsulate the comprehensive depth and breadth of the topic under consideration, providing new insights into the phenomenon of interest. Furthermore, the review findings emphasize the practical implications for clinical practice and the relevance for research and policy initiatives

Note: Whittemore & Knafl, 2005

Table 2.2. Data display: Summary of literature

Author/Year	Title	Objective	Conclusion
Altmiller, G. , Wilson, C. , Jimenez, F. & Perron, T. (2022)	*"Impact of a Virtual Patient Simulation on Nursing Students' Attitudes of Transgender Care"*	To explore the impact of a virtual patient simulation scenario involving the care of a transgender and gender nonconforming (TGNC) adult on nursing students' attitudes, beliefs, and overall readiness to provide affirming, culturally sensitive care to TGNC individuals.	The findings highlight experiential learning as an effective approach for enhancing cultural competence and sensitivity in nursing education, particularly in the care of TGNC patients. Differences were noted between junior and senior nursing students, with senior students demonstrating greater openness and acceptance toward TGNC individuals.
Bonvicini, K. (2017)	*"LGBT Healthcare Disparities: What Progress Have We Made?"*	To critically examine the current state of medical and nursing education with a specific focus on the development of clinical competence in providing inclusive, evidence-based care for LGBTQ populations.	Although nursing education has incorporated more content on cultural competence, significant gaps and inconsistencies remain in preparing nurses to provide effective care for LGBTQ patients.
Díaz, D., Maruca, A., Gonzalez, L., Stockmann, C., & Hoyt, E. (2017)	*"Using simulation to address care of the transgender patient in nursing curricula"*	This manuscript explores nursing students' perceptions of their professional role and responsibilities when delivering care to transgender and gender nonconforming (TGNC) patients within a simulated clinical environment.	Findings indicate that many students rarely, if ever, engage in conversations about gender identity. Although they report being open and accepting of the LGBTQ community with faculty, they express discomfort in fostering an environment that supports self-identification.

Table 2.2 Continued

Eickhoff, C. (2021)	*"Identifying Gaps in LGBTQ Health Education in Baccalaureate Undergraduate Nursing Programs"*	Educating nurses and other healthcare professionals is essential to overcoming barriers to equitable care; however, there is limited information regarding the current state of LGBTQ health education in nursing programs. To address this gap, a survey assessing LGBTQ health content offered to undergraduate nursing students was distributed to all schools accredited by the Commission on Collegiate Nursing Education.	Nearly two-thirds of participating schools reported that their graduates were not sufficiently prepared to provide care for LGBTQ populations. Additionally, only 38% of schools believed their faculty possessed the necessary knowledge to effectively teach this content. These findings highlight a dual need for enhanced LGBTQ health education for both nursing students and faculty.
Elertson, K., & McNiel, P. L. (2021)	*"Answering the Call: Educating Future Nurses on LGBTQ HealthCare"*	To enhance the knowledge, attitudes, and cultural competence of senior-level baccalaureate nursing students in relation to LGBTQ health and inclusive care practices.	Through this pilot training and curricular revision, baccalaureate nursing students are developing greater cultural awareness and are increasingly equipped to address the healthcare needs of the LGBTQ population.
Hand, M. C., & Gedzyk-Nieman, S. (2022).	*"Graduating nursing students' preparedness and comfort level in caring for LGBTQ patients"*	To administer a nationwide survey of graduating prelicensure nursing students in order to evaluate their self-reported preparedness and comfort in delivering care to LGBTQ patients.	Students reported that LGBTQ health topics were addressed within their nursing programs; however, certain areas were identified as needing additional focus. While most students expressed feeling prepared and comfortable providing care to LGBTQ individuals, they did not credit their formal education as the primary source of this readiness.

Table 2.2 Continued

Koch, A., Ritz, M., Morrow, A., Grier, K., & McMillian-Bohler, J. M. (2021)	*"Role-play simulation to teach nursing students how to provide culturally sensitive care to transgender patients."*	To enhance students' knowledge and confidence in providing affirming care to TGNC individuals, while also strengthening their ability to address and challenge culturally insensitive behaviors among peers and colleagues.	Simulation has the potential to reduce discomfort and discrimination in healthcare settings for TGNC patients by preparing students with culturally sensitive, inclusive communication skills.
Lim, F. A., Johnson, M. J., & Elisason, M. J. (2015)	*"A National Survey of Faculty Knowledge, Experience, and Readiness for Teaching LGBTQ Health in Nursing Programs"*	To evaluate the knowledge base and instructional readiness of faculty in baccalaureate nursing programs regarding LGBTQ health topics.	These findings can inform the development of faculty training initiatives and support the alignment of nursing curricula with contemporary LGBTQ health priorities.
McEwing, E. (2020)	*"Delivering culturally competent care to the lesbian, gay, bisexual, and transgender (LGBT) population: Education for nursing students"*	Although healthcare disparities within the LGBTQ community are well established, nursing education has fallen behind other health professions in advancing culturally competent care for this population.	Integrating cultural competency education into nursing curricula has the potential to enhance health outcomes for individuals within the LGBTQ community.
McKay, M., De Santis, J., Valdes, B., & Salani, D. (2022)	*"Prelicensure Baccalaureate Nursing Students' Attitudes, Beliefs, and Willingness to Care for Transgender Clients"*	This pilot study explored the attitudes, beliefs, and willingness of prelicensure nursing students to provide care for TGNC individuals.	Most prelicensure nursing students who participated in this pilot study expressed a willingness to provide care for TGNC clients. However, further research is necessary to identify and address their specific learning needs related to delivering competent and inclusive care for TGNC individuals.

Table 2.2 Continued

McMillian-Bohler, J., Gedzyk-Neiman, S., Hepler, B., May, J. T., & Koch, A. (2022).	*"The Power of a Story: Enhancing Students' Empathy for Transgender Pregnant Men."*	Amplifying the lived experiences of pregnant transgender men can foster greater awareness, deepen understanding, and cultivate empathy for this underrepresented and often overlooked population.	Nursing faculty can enhance student empathy and help reduce discrimination in healthcare by creating opportunities for students to engage directly with TGNC individuals through meaningful conversations and shared experiences.
Sherman, A. D. F., Cimino, A. N., Clark, K. D., Smith, K., Klepper, M., & Bower, K. M. (2021)	*"LGBTQ+ Health Education for Nurses: An Innovative Approach to Improving Nursing Curricula"*	The Johns Hopkins School of Nursing (JHSON) launched the LGBTQ Health Initiative (LHI) to implement a strategic and innovative approach aimed at addressing educational gaps in LGBTQ health content among nursing faculty and students.	The JHSON LHI logic model serves as a replicable framework that equips nurse educators and students with the essential knowledge and tools needed to address the profound healthcare disparities experienced by LGBTQ populations.
White, W., Brenman, S., Paradis, E., Goldsmith, E., Lunn, M., Obedin-Maliver, J., Stewart, L., Tran, E., Wells, M., Chamberlain, L., Fetterman, D., Garcia, G. (2015)	*"Lesbian, Gay, Bisexual, and Transgender Patient Care: Medical Students' Preparedness and Comfort."*	To examine the structure and scope of LGBTQ-related content within nursing curricula, assess students' perceptions of their institution's inclusivity and adequacy in this area, and evaluate their self-reported preparedness to provide care for LGBTQ patients.	Expanding LGBTQ-related content within nursing curricula is recommended, particularly through increased opportunities for students to engage with LGBTQ patients in clinical practice settings.

CHAPTER THREE: RIVERA'S GENDER AFFIRMING NURSING CARE MODEL: A MIDDLE-RANGE THEORY: ANALYSIS AND EVALUATION

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Abstract

Background*:* To holistically address healthcare disparities and the potential impact on transgender and gender non-conforming (TGNC) individuals, Rivera et al. (2022) introduced a middle-range theory that focuses on addressing nursing care and outcomes for TGNC individuals. Rivera's Gender Affirming Nursing Care Model supports developing gender-affirming knowledge and care practices within nursing to improve healthcare outcomes. Initially, her explorative work commenced as a narrative inquiry, delving into nurses' assumptions regarding TGNC patients. Gradually, this narrative evolved into a remarkable theoretical framework, which was subsequently polished and refined by the expertise and mentorship of esteemed professionals such as Drs. Lisa Goldberg, Susan Luparell, and Jean Watson.

Method*:* In this article, Rivera's Gender Affirming Nursing Care Model was critically appraised using criteria outlined by Fawcett and DeSanto-Madeya (2013).

Conclusion*:* This theory equips nursing with the necessary resources to foster enhanced health outcomes for the TGNC community. While its practical application in the nursing field may be limited, the concepts embodied in the theory can potentially promote transformative social change in nursing research, education, and practice. As such, this theory represents a vital steppingstone towards realizing more inclusive and equitable healthcare practices and paves the way for a brighter future for the TGNC community.

Introduction

The American Psychological Association (APA, 2015) defines gender as the attitudes, feelings, and behaviors that a given culture associates with an individual's biological sex. Health research typically reinforces a binary concept of gender, evident in how sex and gender (often used interchangeably) are represented as male/female, men/women, or boys/girls in studies involving human participants (Lightfoot et al., 2021). This effectively erases participants who identify between or outside these binary categories, a growing population known as transgender and gender non-conforming (TGNC) individuals (Clark et al.,2018). TGNC is an umbrella term for individuals whose gender expression, identity, or role diverges from the gender norms associated with their biological sex (APA, 2015).

The marginalization of TGNC individuals in healthcare is worsened by cisnormativity, which is the belief that being cisgender is the norm and expectation (Lightfoot et al., 2021). Cisgender refers to individuals whose gender expression, identity, or role aligns with the gender norms associated with their biological sex (APA, 2015). The misconception that TGNC individuals are rare contributes to cisnormativity, which can manifest as binary gender markers on forms, billing, and medical records (Lightfoot et al., 2021). Nurses operating in this cisnormative environment receive little to no training about providing competent, patient-centered care to TGNC individuals (Lim et al., 2015).

TGNC individuals are increasingly visible in society and healthcare settings; however, more attention is needed to their specific healthcare needs to overcome disparities this population faces. These disparities arise from various factors, including discrimination, biases, stigma, inadequate education for healthcare providers, and limited access to affordable gender-affirming healthcare services (Kano et al., 2019). For example, Lightfoot et al. (2021) concluded that

TGNC individuals are more likely to experience mental health issues such as anxiety, depression, substance abuse, and suicide than the general population. Additionally, they may encounter barriers to accessing essential healthcare services, such as preventive screenings and routine care. Addressing these disparities requires a multi-faceted approach that includes improving education for healthcare providers, increasing access to gender-affirming healthcare services, and tackling systemic discrimination and stigma.

In recent years, there has been a concerning trend of political attacks on TGNC people, resulting in several states restricting or prohibiting access to best-practice medical care for TGNC youth (MAP, 2022). According to Kano et al. (2019), LGBTQ individuals are less likely to disclose their sexual orientation or gender identity when they feel uncomfortable with their healthcare providers, leading to a reluctance to seek preventative or urgent care. Therefore, it is crucial to educate future nurses on the best-practice medical care for TGNC individuals to ensure they understand how these discriminatory laws hinder holistic-centered care for patients.

Rivera et al. (2022) have made significant contributions to healthcare by introducing a middle-range theory that addresses healthcare disparities holistically and improves outcomes for TGNC individuals. Their theory, the Gender Affirming Nursing Care Model (GANC), promotes gender-affirming knowledge and care practices within nursing. This approach can enhance healthcare outcomes and reduce disparities in care for this vulnerable population. However, to ensure the validity and reliability of GANC, it is essential to subject the theory to rigorous scientific scrutiny. Therefore, this article offers a comprehensive analysis and evaluation of GANC using the well-established approach proposed by Fawcett and DeSanto-Madeya (2013).

Theory Analysis

A theory is usually developed to articulate a unique and comprehensive concept regarding a phenomenon, addressing previously unaddressed questions and providing a fresh perspective on the nature of the phenomenon (Walker & Avant, 2019). Theory analysis involves an objective and thorough evaluation of a theory's strengths and limitations, with particular emphasis on its usefulness, clarity, relevance, and practicality in nursing practice (Walker & Avant, 2019). I used the analysis framework that Fawcett and DeSanto-Madeya (2013) developed, producing a descriptive, analytical, and critical interpretation summarized in three categories: theory scope, context, and content.

Theory Scope

Examining the theory's scope is crucial because it helps assess the theory's unique and distinct focus (Fawcett & DeSanto-Madeya, 2013). While nursing models are generally grounded in a broad understanding of the purpose of nursing, these models provide unique perspectives on the concepts within the nursing metaparadigm. Therefore, the scope of theory is vital in identifying the specific areas in which the authors emphasize their insights, highlighting variations in the nursing model influenced by factors such as nursing situations, client concerns, environment, nursing outcomes, and nursing therapeutics (Fawcett & DeSanto-Madeya, 2013).

Rivera (2019) eloquently narrated the journey that led to the development of her groundbreaking middle-range theory. Her explorative work, initially a narrative inquiry into nurses' assumptions regarding TGNC patients, gradually evolved into a remarkable theoretical framework. This framework was then meticulously polished and refined under the mentorship of esteemed professionals such as Drs. Lisa Goldberg, Susan Luparell, and Jean Watson, ultimately resulting in a formidable middle-range theory.

Rivera et al. (2022) aimed to address the marginalization and discrimination experienced by TGNC individuals in healthcare. The authors proposed that to facilitate holistic nursing practice, nurses should engage in self-reflection to enhance their personal awareness of the interconnectedness between themselves and others. This, in turn, creates opportunities for relational learning and cultural humility. As Fahlberg et al. (2016) assert, cultural humility is an ongoing process that requires maintaining an open mind and heart, recognizing that the process is never fully mastered, and constantly evolving with each encounter. This cultural humility underpins the GANC and plays a key role in promoting positive health outcomes.

Middle-range theories can be classified as descriptive, explanatory, or prescriptive. In this context, Rivera et al. (2022) introduced a prescriptive theory designed to guide action in nursing education, practice, and research, with the goal of delivering holistic, patient-centered care to TGNC patients. As Fawcett and DeSanto-Madeya (2013) note, prescriptive theories are essential in guiding decision-making and action, providing clear direction on the specific steps needed to achieve a given objective. In nursing and healthcare, the GANC serves as a powerful tool for promoting positive health outcomes and enhancing the quality of care for TGNC patients.

Theory Context

The theory context examines the historical evolution of the nursing model and investigates the author's motivation for developing it (Fawcett & DeSanto-Madeya, 2013). The creation of a nursing model also includes the author's personal nursing philosophy, values, and beliefs, the process of knowledge acquisition used in developing the model, the influence of other nursing scholars and related fields on the author's perspective, and the worldview expressed in the nursing model (Fawcett & DeSanto-Madeya, 2013). Rivera et al. (2022) applied Fawcett's (2013) criteria to develop the GANC model.

The GANC model centers on holistic patient wellness by shifting the nursing paradigm from a gender-binary framework to one of gender transcendence and affirmation fostered by gender-affirming interactions (Rivera et al., 2022). The GANC model, developed by Rivera et al., serves not just as a theoretical construct but as a transformative tool with the potential to revolutionize gender-affirming care. It incorporates elements from critical and interaction theories to achieve this phenomenon. The choice of Critical Theory (Weaver & Olson, 2006) was made due to its inclusive constructs and nurse-patient interactions, which represent a cooperative manifestation of a shared understanding of meaning that holds the potential to enhance both equality and equity. The GANC model acknowledges the crucial importance of self-reflection; thus, this theory establishes a strong foundation for developing gender-affirming therapeutic connections between nurses and patients. According to Scheel et al. (2008) and their Interactional Theory, the nursing relationships outlined in the GANC model are characterized by reciprocity and an emphasis on understanding through dialogue and action. This reciprocal interaction between nurses and patients pertains to all aspects of care. Interactional Theory is built upon principles such as Internal Good, External Good, Goals, Ethical Action, Speech Action, and Avoidance of Instrumental Strategic Action.

The two theories were selected for their synergistic properties, which include being based on a view of caring within the humanistic paradigm, exhibiting a high degree of consistency and alignment that supports face validity, emerging from a collaborative inductive research process, and being informed by a synthesis of existing literature on cultural humility, caring, and the social construct of holistic nursing practice (Rivera et al., 2022). This collaborative approach is not merely a theoretical construct; it serves as a call to action for all nursing professionals, scholars, and students interested in gender-affirming care and nursing theories. These aspects

ensure that the theories work cohesively while grounded in evidence-based research and practical application. Ultimately, these synergistic properties enhance the effectiveness and relevance of the theory in nursing, especially in fostering a culture of caring and humility in healthcare. Consequently, the GANC model offers a distinctive approach to cultivating culturally sensitive relationships for both TGNC and cisgender individuals (Rivera et al., 2022).

Theoretical assumptions are fundamental to any theory and reflect the beliefs and values of the theorist. The GANC theory operates on the assumption that gender-affirming nursing care transcends gender, embraces an all-inclusive approach, and advocates for a paradigm shift from a gender-binary worldview to a gender-affirming one, eliminating social struggle and oppression (Rivera et al., 2022). This assumption is not just impressive, but it's a testament to the respect and value the GANC model places on all individuals, regardless of gender identity. The theory emphasizes the importance of a therapeutic relationship with the person receiving care, the acquisition of knowledge about gender transition and affirming care, and the recognition that the individual is the "owner" of their decisions (Rivera et al., 2022). Overall, these assumptions provide a strong foundation for gender-affirming nursing care and serve as an essential guide for nurses who strive to support and advocate for individuals with diverse gender identities.

Theory Content

A key aspect of this analysis involves examining the general concepts of the model, along with the relational propositions that define and connect those concepts. Specifically, the four metaparadigm domains of person, health, environment, and nursing are essential to this analysis. The content of the nursing model includes defining and describing each of these concepts, outlining the overarching goals of nursing, detailing the nursing practice, and exploring the relationships among the four metaparadigm domains. By undertaking this analysis, nurses can

achieve a deeper understanding of the theoretical foundations of their profession and apply this knowledge meaningfully and informedly to their daily practice.

Rivera et al. (2022) present the three concepts that create a comprehensive framework for nurses when caring for TGNC patients. The first concept, relationships, emphasizes the importance of establishing a strong connection between the nurse and the patient that is grounded in trust, empathy, and mutual respect (Rivera et al., 2022). This relationship-building process fosters a safe and supportive environment for the patient, which is crucial for their overall well-being. A strong relationship also allows the nurse to understand the patient's unique needs and preferences, informing their care. The second concept, knowledge, highlights the nurse's role in grasping and clarifying current and emerging TGNC care (Rivera et al., 2022). This includes understanding the patient's specific needs, medical treatments, and social and cultural factors that may influence their care. The third concept, engagement, centers around the nurse's actions within the care delivery system and society (Rivera et al., 2022). This encompasses advocating for the patient's rights, educating other healthcare providers, and addressing systemic barriers that may affect the patient's care. By engaging in these actions, the nurse can help cultivate a more inclusive and supportive healthcare environment for TGNC patients. Overall, these three concepts present a comprehensive framework for nurses to follow in caring for TGNC patients. Through building solid relationships with their patients, understanding their unique needs and preferences, and engaging in advocacy and education, nurses can deliver high-quality, patient-centered care that supports the health and well-being of TGNC individuals.

The GANC model, with its potential to advance nursing science, empowers nurses by facilitating the generation and testing of hypotheses through relational propositions (Rivera et al., 2022). The information in **Table 3.1 (*See Appendix*)**, which links the concepts of gender-

affirming nursing care to relational propositions, serves as a guide for continued practice and research. The validation of the GANC model through scholarly exploration is crucial, as it provides empirical evidence of its impact on holistic health outcomes (Rivera et al., 2022). This validation reinforces the importance of gender-affirming nursing care and enhances the quality of nursing practice, instilling confidence and capability in nurses.

Nursing characteristics are essential for delivering quality care to patients. These traits develop through a combination of formal education and clinical experiences, enabling nurses to acquire the knowledge, skills, and attitudes necessary for their role (Fawcett, 2013). As healthcare professionals, nurses must be mindful of their implicit and explicit biases to provide respectful and compassionate care to all patients, including those who identify as LGBTQ+ (Rivera, 2022). By nurturing a gender-affirming practice, nurses can deliver care that acknowledges and respects the diversity of patients' identities, enhancing health outcomes and overall patient satisfaction. Clear and concise categorization and definition of these characteristics to assist nurses in better understanding and implementing them in their practice are presented in **Table 3.2** ***(See Appendix)***.

Rivera's GANC theory is a holistic approach to nursing care that acknowledges the importance of the nurse's impact on the person, health, environment, and nursing domains. The theory emphasizes recognizing the interactions between GANC concepts within each domain. According to Rivera et al. (2022), the person receiving care is a unique individual or group who is continuously evolving with a sense of identity and self-worth; health is not static, but a dynamic state on an illness-wellness continuum; the environment includes all external and internal influences and forces affecting the nurse-patient (group) interaction; and the ultimate

goal of gender-affirming nursing care is to achieve holistic patient wellness. This holistic approach promotes a comprehensive understanding of the patient's needs and experiences.

Theory Evaluation

Fawcett and DeSanto-Madeya's (2013) process of theory evaluation is a systematic approach to assessing nursing theories. The process comprises six steps: (1) significance, (2) internal consistency, (3) parsimony, (4) testability, (5) empirical adequacy, and (6) pragmatic adequacy. Each step includes specific criteria that are used to evaluate the theory in question. This process aims to assist nurses in critically examining theories and determining their relevance for guiding nursing practice and research. By employing this method, nurses can evaluate the strengths and weaknesses of a theory to make informed decisions about its application.

Significance

Evaluating a theory's significance involves assessing whether its concepts and propositions stem from philosophical viewpoints and whether its conceptual models are anchored in philosophical principles (Fawcett & DeSanto-Madeya, 2013). Rivera's GANC model (2022) was developed using Fawcett's (2013) criteria for theory development criteria, taking a holistic view of TGNC individuals with the aim of building nurse-patient relationships through gender-affirming care. Rivera et al. (2022) clearly address the person, health, environment, and nursing metaparadigm domains and their relationship with the GANC theory in the nursing discipline. The GANC model is rooted in critical and interactional theories, chosen for their synergistic properties, and reflects a caring perspective within the humanistic paradigm. Rivera et al. (2022) expressed their gratitude to Willa Starke, Trystan Reese, and Hannah Simpson for their contributions to the development and evaluation of the GANC from the TGNC

patient's perspective, as well as to Dr. Lisa Goldberg, Dr. Susan Luparell, and Dr. Jean Watson for their theoretical expertise and mentorship in refining the middle-range theory.

The GANC model emphasizes the importance of relationships, knowledge, and engagement for nurses to provide compassionate and effective care to TGNC patients, thereby achieving holistic patient wellness (Rivera et al., 2022). Holistic wellness is a complex concept that encompasses physical health as well as emotional and social well-being. Gender-affirming nursing actions can support this type of wellness, fostering therapeutic communication and trust between the patient and the nurse. When a caring relationship is established, it can positively affect the patient's overall well-being. Therefore, nurses who advocate for healthcare equity can contribute to improved patient outcomes; additionally, care partners who engage in lifelong learning and gain wisdom will positively impact holistic patient wellness (Rivera et al., 2022). Finally, by addressing these various aspects of care, nurses and care partners can collaborate to support their patients' holistic wellness (Rivera et al., 2022).

Internal Consistency

Internal consistency refers to the coherence and harmony among the components of a theory, which encompass the clarity and consistency of its concepts, propositions, and definitions (Fawcett & DeSanto-Madeya, 2013). Rivera et al. (2022) clearly describe the three concepts, four propositions **(Table 3.1)**, and definitions of nursing characteristics **(Table 3.2)**. Gender-affirming language is uniformly used throughout the concepts, propositions, and nursing characteristics. Structural consistency is demonstrated by Rivera et al. (2022) using Fawcett’s (2013) framework to develop the GANC.

Parsimony

The principle of parsimony refers to the ability of a theory to explain phenomena clearly while using as few concepts and propositions as possible. Additionally, parsimony helps reduce complexity, increase clarity, and enhance the testability of nursing theories (Fawcett & DeSanto-Madeya, 2013). In this context, Rivera's (2022) GANC model stands out as a prime example of parsimony in action, incorporating just three concepts, four propositions, and 13 nursing characteristics. The information presented clarifies the theory, which contains a justified and essential number of concepts, propositions, and nursing characteristics, with no overlap. This carefully calibrated balance ensures the theory is both comprehensive and streamlined, with each component crucial for illuminating the complexity of caring for TGNC individuals.

Testability

Testability pertains to the extent to which the scientific value of a theory can be validated through empirical testing. This can be determined by examining whether the research methodology aligns with the theory, whether there are available scales to measure observable concepts, and whether the propositions of the theory can be assessed through statistical analysis (Fawcett & DeSanto-Madeya, 2013). Rivera et al. (2022) developed the GANC Nursing Characteristics Evaluation Tool to assess gender-affirming nursing practice behaviors, which includes a list of empirical indicators for model testing. They created this tool for future research. After examining the article, the tool was not located; however, this does not negate the methodology of the GANC Nursing Characteristics Evaluation Tool.

Empirical Adequacy

Empirical adequacy refers to the extent to which a theory or model corresponds with observed empirical data or evidence (Fawcett & DeSanto-Madeya, 2013). A theory is deemed to

have empirical adequacy when it is supported by empirical evidence gathered from observations, experiments, or other forms of data collection (Fawcett & DeSanto-Madeya, 2013). A review of the literature identified two articles by Rivera conducted during the development of the GANC model. The first study aimed to explore the lived experiences of TGNC patients to inform potential nursing curricular modifications (Rivera, 2019). Through a narrative inquiry approach, the study examined the patients' perspectives on the quality of the nursing care they received. The second study aimed to create and pilot test the Transgender Fertility Preservation Knowledge Scale to support the development and assessment of health education resources (Rivera et al., 2021). Rivera's GANC model shows promise, but its applicability is limited beyond the original theorist's work. Therefore, it is crucial that future research focuses on establishing the empirical adequacy of the GANC model with greater certainty. By doing so, we can more fully comprehend potential impact of the model and identify any areas where it may need refinement or improvement to better meet the needs of TGNC patients.

Pragmatic Adequacy

Pragmatic adequacy refers to practical usefulness and effectiveness of a theory or model in solving real-world problems and achieving specific goals (Fawcett & DeSanto-Madeya, 2013). A theory is deemed to possess pragmatic adequacy when it can be effectively applied in various contexts and holds practical value in addressing specific issues or challenges (Fawcett & DeSanto-Madeya, 2013). Further research is necessary to evaluate the pragmatic adequacy of Rivera's GANC model. Nevertheless, it is reasonable to assume that the concepts related to Rivera's GANC model could be integrated into nursing research and practice, offering potential practical benefits. I concur with Rivera et al.'s (2022) assertion that numerous studies illustrate the positive effects of applying the concepts associated with the GANC model on patient

outcomes. The evidence supporting gender-affirming nursing care is expanding. Researchers have consistently demonstrated that this approach can improve patient satisfaction, reduce healthcare disparities, and promote better health outcomes for TGNC individuals (Clark et al., 2018; Lightfoot et al., 2021; Rivera, 2019; & Rivera et al., 2021). Specifically, the emphasis of the GANC model on fostering therapeutic relationships, acquiring knowledge about TGNC care, and advocating for patients' rights has positively influenced patient outcomes. These concepts align with the core values of the nursing profession, which include patient-centered care, respect for patient autonomy, and advocacy for social justice, and can potentially enhance the quality of care for TGNC patients.

Conclusion

In this comprehensive analysis, the structural and functional components of Rivera's GANC were meticulously examined and assessed using the rigorous standards established by Fawcett and DeSanto-Madeya (2013). This investigation aimed to provide insights into Rivera's GANC that would help shape and refine the delivery of high-quality nursing care for the TGNC community. This middle-range theory generally fulfills most of the criteria, except for empirical and pragmatic adequacy. Although there is tentative support for the empirical adequacy of the theory based on Rivera's studies and the its logical coherence, it falls short in terms of pragmatic adequacy due to the lack of practical application. Despite this limitation, the relevance of the theory in addressing the persistent health disparities experienced by the TGNC community cannot be understated, making it a timely and essential contribution to the field of healthcare research.

Rivera's GANC (2022) marks a significant advancement in gender-affirming care. Grounded in cultural humility and holism, this prescriptive theory delineates specific nursing

actions and characteristics vital for delivering comprehensive and compassionate gender-affirming care. By integrating evidence-informed practices, gender-affirming nursing care can create synergistic effects that lead to superior health outcomes across all demographics. This holistic approach to nursing care has the potential to transform the healthcare landscape and foster a more equitable and inclusive healthcare system. However, while the evidence supporting the GANC model is promising, it's essential to acknowledge that considerable work remains in advancing inclusive and equitable healthcare for TGNC individuals. This need highlights the necessity for further research and the implementation of Rivera's GANC to enhance healthcare for TGNC individuals continuously.

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Appendix

Table 3.1. Theory Concepts and Relational Propositions

Concepts	Relational Propositions
Knowledge	"If gender-affirming nursing actions foster therapeutic communication and trust, then Holistic Patient Wellness is supported."
Engagement	"If a caring relationship is established, a positive effect on Holistic Patient Wellness is generated."
Relationships	"If the nurse advocates for healthcare equity, then improved patient outcomes are achieved."
	"If care partners engage in life-long learning (knowledge), wisdom gained will have a positive impact on Holistic Patient Wellness."

Note. Adapted from "Introduction to Rivera's Gender Affirming Nursing Care Model: A Middle-Range Theory", Rivera, D.; Jukkala, A.; & Rohini, T., 2022, Sage Journals, 40(3)

Table 3.2. Gender-Affirming Nursing Care Theory Concepts and Related Nursing Characteristics

Concept	Characteristic	Definition
Relationships	Acceptance	The nurse's intentional recognition of a situation or condition as it is, without attempting to alter it or resist its presence.
	Compassion	The nurse's awareness of a client's suffering, accompanied by a genuine desire to alleviate that distress.
	Ethical	The nurse's behaviors reflect moral integrity and align with professional codes of conduct and ethical principles.
	Gender-Affirming Care	Refers to optimal healthcare interactions and interventions that affirm and support the identities and needs of TGNC individuals.
	Humility	The nurse demonstrates a grounded self-awareness, acknowledging personal limitations and strengths while respecting the contributions of others and embracing shared responsibility in care.
	Openness	The nurse demonstrates a readiness to consider diverse viewpoints, experiences, and approaches to care.
	Trust	The nurse holds a confident belief in the reliability, honesty, and integrity of others in the care relationship.
Engagement	Advocacy	Purposeful action taken to influence social, political, or institutional decisions in order to confront and reduce bias, stigma, and discrimination.
	Gender Inclusive	Care that honors and reflects the full range of gender identities, ensuring respectful and affirming healthcare environments and practices.
Knowledge	Competence	The ability to deliver knowledgeable, evidence-informed care developed collaboratively with patients to meet shared goals.
	Dispel Myth	The act of addressing and correcting misinformation or harmful beliefs by offering clear, evidence-based education to oneself and others.
	Gender Inclusive Education	A teaching and learning approach that incorporates gender-affirming content, promoting respect and understanding of gender diversity.
	Wisdom	Growth in clinical judgment and insight gained through the thoughtful application of learned knowledge and experience within nursing care contexts.

Note. Adapted from "Introduction to Rivera's Gender Affirming Nursing Care Model: A Middle-Range Theory", Rivera, D.; Jukkala, A.; & Rohini, T., 2022, Sage Journals, 40(3)

CHAPTER FOUR: TRANSFORMING CARE: A GENDER-AFFIRMING CARE SIMULATION STUDY

A version of this chapter was originally prepared for The International Journal of Transgender Health by Edward D. Petrie. The required citation format for this journal is that of the American Psychological Association, 7th Edition.

Abstract

Background:

Transgender and gender non-conforming (TGNC) individuals continue to face significant health disparities rooted in stigma, bias, and a lack of provider training. While nurses are expected to deliver culturally affirming care, few nursing programs include simulation experiences that center TGNC voices. Simulation including TGNC-standardized patients offers a meaningful way to enhance student understanding and confidence.

Purpose:

The purpose of this study was to examine the impact of a simulation of gender-affirming including TGNC standardized patients on prelicensure nursing students' attitudes and beliefs, as measured by the Transgender Attitudes and Beliefs Scale (TABS), and to explore their perceptions of the simulation experience through qualitative debriefing.

Method:

A mixed-methods design was used. Thirteen nursing students participated in a simulation scenario with TGNC-standardized patients. Surveys were completed pre- and post-simulation using the TABS instrument to measure changes in students' attitudes across three subscales: Interpersonal Comfort, Sex/Gender Beliefs, and Human Value. Focus group debriefings were conducted immediately after the simulation, and detailed field notes were thematically analyzed.

Results:

A statistically significant improvement in selected items within the Interpersonal Comfort and Sex/Gender Beliefs subscales was observed following the simulation. While most students demonstrated positive attitudes at baseline, the simulation further reinforced inclusive beliefs and reduced discomfort. Four themes were derived from qualitative analysis: increased comfort and

confidence, power of authentic representation, enhanced empathy through lived experience, and commitment to inclusive and respectful practice. Students consistently emphasized that working with TGNC-standardized patients enhanced deeper emotional impact, increased realism, and fostered empathy in a way that traditional simulations could not.

Conclusion:

Findings support the integration of TGNC-standardized patients into nursing simulation education as a transformative strategy for developing culturally safe, affirming, and inclusive care practices. When guided by Rivera's Gender-Affirming Nursing Care model, this approach promotes self-reflection, authentic engagement, and the core competencies needed to reduce health disparities experienced by the TGNC population.

Introduction

Transgender and gender non-conforming (TGNC) individuals face significant disparities in healthcare, often resulting from provider bias, a lack of knowledge, and systemic barriers to affirming care (Altmiller et al., 2022; Bhatt et al., 2022; Diaz et al., 2017; Eickoff, 2021; Johnson et al., 2019). Research indicates that TGNC individuals frequently encounter discrimination in healthcare settings, leading to delayed or avoided care, poorer health outcomes, and increased psychological distress (Abeln & Love, 2019; Koch et al., 2021; Johnson et al., 2019; McEwing, 2020). Nurses, including nursing students, play a crucial role in reducing these disparities. However, nursing curricula often do not provide sufficient education about gender-affirming care, leaving many students unprepared to address the unique needs of this population (Altmiller et al., 2022; Bonvicini, 2017; Eickhoff, 2021; Lim et al., 2015).

Significance

In the United States, 1.6 million individuals aged 13 and older identify as TGNC (Herman et al., 2022). TGNC is an umbrella term that includes individuals whose gender identity does not match the sex assigned at birth (APA, 2015). Gender-affirming care encompasses a range of medical, psychological, and social services designed to support and affirm an individual's gender identity, and can include hormone therapy, surgeries, counseling, and social support measures (Rivera et al., 2022). Establishing nursing competence in gender-affirming care will help to foster successful nurse-patient relationships by promoting bias-free interactions and affirming the patient's identity. Merriam-Webster (n.d.) defines *competence* as "the quality or state of having sufficient knowledge, judgment, skill, or strength (as for a particular duty or respect). Competence in gender-affirming care is critical to fostering successful nurse-patient

relationships, reducing healthcare inequities, and ensuring that TGNC individuals receive respectful, affirming, and evidence-based care.

TGNC individuals are currently facing significant healthcare disparities, a situation that demands immediate attention. These disparities, which are often rooted in systemic barriers, provider bias, and insufficient access to gender-affirming services, are causing considerable harm (Altmiller et al., 2022; Bhatt et al., 2022; Diaz et al., 2017; Eickoff, 2021). Johnson et al. (2019) indicate that nearly one-third of TGNC individuals are deterred from seeking medical care due to fear of discrimination or past negative encounters with healthcare providers. When TGNC individuals do seek care, they are frequently subjected to misgendering, lack of provider knowledge, and even outright refusal of treatment (Abeln & Love, 2019; Bhatt et al., 2022; Johnson et al., 2019; Kearns et al.,2021). This results in substantial delays in receiving essential preventive services such as cancer screenings and mental health support. These barriers contribute to higher rates of untreated chronic conditions, mental health disorders, and suicide risk in this population (Abeln & Love, 2019; Bhatt et al., 2022; Johnson et al., 2019; Kearns et al.,2021). To address these disparities, it is crucial that nursing education incorporates comprehensive, evidence-based training about gender-affirming care.

Despite the increasing visibility of TGNC individuals in healthcare settings, nursing education still lacks comprehensive, evidence-based training about gender-affirming care, leaving future nurses unprepared to meet the needs of this population (Eickoff, 2021; Koch et al., 2021). Lim et al. (2015) indicate that prelicensure nursing programs dedicate fewer than five hours, on average, to LGBTQ+ health topics, with even less specific focus on TGNC care. The exclusion of TGNC individuals from the development and implementation of nursing education materials, particularly in simulations and standardized patient experiences, further limits ability

of students to engage in authentic and affirming patient interactions. When TGNC individuals are not involved in shaping these educational tools, the resulting scenarios often reinforce stereotypes, lack cultural relevance, and fail to reflect the lived experiences of TGNC patients. This absence also allows implicit biases to go unchallenged, as students are not exposed to the real, diverse experiences of TGNC individuals and may unknowingly adopt assumptions rooted in cisnormativity (Rivera et al., 2022). This lack of representation diminishes the effectiveness of simulation-based learning, preventing students from gaining the necessary clinical competence, confidence, and empathy required to provide gender-affirming care.

Theoretical Framework

Rivera et al. (2022) sought to holistically address the marginalization and discrimination of TGNC individuals in healthcare by developing Rivera's Gender-Affirming Nursing Care (GANC) Model. This model is based on three core concepts: relationships, knowledge, and engagement—that emphasize the significance of patient-centered care, continuous learning, and active advocacy in nursing practice (Rivera et al., 2022). By fostering cultural humility and self-awareness, GANC encourages nurses to acknowledge their own biases while developing affirming, therapeutic relationships with TGNC patients (Rivera et al., 2022). The model also highlights the importance of knowledge acquisition in gender-affirming care, urging nurses to remain informed about best practices, evolving language, and TGNC-specific health concerns (Rivera et al., 2022). It accomplishes this by promoting holistic nursing practices rooted in self-reflection and relational learning (Rivera et al., 2022). We used the GANC to directly inform the development of a gender-affirming care simulation for this study, as this model provides a structured approach for integrating TGNC individuals as standardized patients and ensuring nursing students engage in meaningful, bias-free interactions (Rivera et al., 2022). The GANC

model also provides a structured research framework for analyzing and interpreting the findings from the study. The relational propositions **(Table 4.1, *See Appendix*)** of the model guided the research framework, helping to establish clear connections between the simulation experiences and the observed outcomes. This framework ensured that the study contributes valuable insights to nursing education and gender-affirming care, supporting the broader goal of improving health care for TGNC individuals.

Methods

To evaluate the impact of this simulation-based intervention, this study used a mixed-methods approach, incorporating both quantitative and qualitative data collection (Tappen, 2016).

Participants

The study's participants were baccalaureate nursing students currently enrolled in their third or fourth year of study, having completed coursework in foundational nursing theory and practice. Exclusion criteria were nursing students who had previously undergone formal training or education specific to TGNC health care, as their prior exposure might confound the study results. Additionally, individuals with prior personal or professional experiences that could significantly influence their attitudes and beliefs towards TGNC care, such as close relationships with TGNC individuals, employment in settings catering to TGNC health care, or TGNC students, were excluded from participation to minimize potential biases (Polit & Beck, 2017; Tappen, 2016).

Sample Size

The determination of the sample size of 13 participants was guided by the A-priori Sample Size Calculator for Paired T-test (Soper, 2022), which factored in an anticipated effect

size of 0.86, a desired statistical power level of 0.8, and a probability level of 0.05. The large effect size of 0.86 was determined based on the findings by Kim et al. (2016), who identified that including standardized patients in educational simulation typically produces an effect size of this magnitude. This sample size balanced the need for comprehensive data collection with the logistical constraints of conducting detailed, high-fidelity simulations.

Ethical Considerations

The study received approval from the Institutional Review Board (IRB) at the University of Tennessee-Knoxville. All participants provided written informed consent before participating. Given the sensitive nature of discussions surrounding gender-affirming care, special precautions were taken to protect participant privacy, psychological safety, and data confidentiality. To maintain a safe and supportive environment, no video or audio recordings were made of the simulation sessions or focus group debriefings. Instead, the facilitators took detailed notes, ensuring participants' insights were accurately captured while minimizing discomfort or fear of disclosure. Additionally, confidentiality was emphasized during the pre-briefing and debriefing sessions, during which participants were asked to respect their peers' privacy and not disclose discussions outside the study setting. All data were de-identified and securely stored, ensuring that individual responses could not be traced back to specific participants. TGNC standardized patients were included in the simulation with their full informed consent. This involved a detailed explanation of the study, including its purpose, procedures, potential risks, and the voluntary nature of participation. They also were allowed to ask questions and assured they could opt out of participation at any point to ensure their well-being.

Simulation Framework

The gender-affirming care simulation intervention was developed and conducted following best practices outlined by the International Nursing Association for Clinical Simulation and Learning's (INACSL) Healthcare Simulation Standards of Best Practice™, ensuring a structured, practical, and ethically sound approach to simulation-based education (INACSL, 2021). The simulation was designed using Rivera's GANC to guide scenario development and learning objectives, ensuring participants engaged in holistic, patient-centered care promoting relationships, knowledge acquisition, and active engagement (Rivera et al., 2022). An Advisory Board consisting of community-based TGNC individuals, faculty, former students, and simulation experts played a crucial role in developing case scenarios, reviewing materials for accuracy, and training standardized patients to ensure the simulation was culturally congruent and representative of real-world clinical encounters.

To address the lack of nursing education on gender-affirming care, the simulation mirrored a real-life clinical scenario involving TGNC patients, bringing the practical relevance of the simulation to the forefront. The goal of the scenario was to enhance nursing students' positive attitudes and beliefs toward TGNC individuals while improving their competence in affirming care practices. The primary investigator and Advisory Board collaboratively developed detailed case scenarios with clear learning outcomes aligned with *The Essentials: Core Competencies for Professional Nursing Education* (AACN, 2021). The scenario included pre-licensure nursing students as two active participants and two observers, who switched roles to ensure a multimodal learning experience accommodating visual, auditory, and kinesthetic learners. Including authentic clinical environments and TGNC standardized patients further strengthened the realism and effectiveness of the simulation intervention.

A structured pre-briefing session was conducted before the simulation to establish expectations, review learning objectives, and create a psychologically safe learning environment (INACSL, 2021). The pre-briefing emphasized the importance of cultural humility, encouraged self-reflection on implicit biases, and highlighted the significance of gender-affirming communication skills. By reducing students' anxiety and fostering open engagement, the pre-briefing ensured all participants were prepared for meaningful, bias-free interactions during the simulation.

A trained facilitator led the simulation sessions to ensure bias-free, affirming interactions were maintained (INACSL, 2021). Facilitators were trained to recognize and address implicit bias in real-time, offering corrective guidance when students engaged in microaggressions or displayed discomfort during patient interactions. The role of the facilitator was crucial in creating a safe and supportive learning environment that fostered confidence, cultural humility, and clinical competence in gender-affirming care.

Following each simulation, a structured debriefing session took place using the INACSL standards framework. This allowed participants to reflect on their experiences, assess their communication skills, and discuss areas for improvement (INACSL, 2021). Facilitators used the PEARLS debriefing tool, open-ended questioning, and self-assessment to encourage deep learning and meaningful engagement with gender-affirming care principles (Eppich & Cheng, 2015). The TGNC standardized patients also provided feedback on student performance, ensuring that TGNC perspectives were integrated into the learning process.

Learning assessment of the students was conducted using a combination of formative, self-assessment, and objective measures. Formative assessments included real-time feedback from the facilitator and standardized patient, offering immediate insights into students'

communication and clinical decision-making skills. Self-assessment tools included reflection on personal growth, implicit biases, and readiness to provide gender-affirming care. Objective measures included pre- and post-simulation completion of the Transgender Attitudes and Beliefs Scale (TABS; described below) to measure changes in students' attitudes and beliefs toward TGNC individuals.

Instrument

The Transgender Attitudes and Beliefs Scale (TABS; Kanamori et al., 2017) was used to assess students' attitudes and beliefs regarding gender-affirming care. TABS was administered prior to the simulation intervention to establish a baseline and upon completing the simulation to capture any changes or shifts in attitudes and beliefs. The TABS is a validated tool known for its reliability and validity in measuring attitudes and beliefs related to TGNC care (Kanamori et al., 2017). The TABS instrument comprises 29 items designed to gauge attitudes toward transgender individuals. Respondents rate these items on a seven-point Likert scale, ranging from "strongly disagree" to "strongly agree" in three different subscales. These subscales assess interpersonal comfort, sex and gender beliefs, and human value (Kanamori et al., 2017). Fourteen items are reverse scored to ensure an accurate reflection of attitudes. For all subscales, higher scores indicate more positive and affirming attitudes toward transgender individuals (Kanamori et al., 2017). At the onset, the scale defines a transgender person as someone whose biological sex diverges from their self-identified gender (Kanamori et al., 2017). Sample questions include inquiries such as a willingness to invite a transgender person into one's home for a meal, beliefs about the immutability of biological sex, and acknowledgment of the inherent value of transgender individuals, irrespective of personal views on transgender individuals (Kanamori et al., 2017).

Focus Group Debriefing

Following the simulation, focus group debriefing sessions were held to gather descriptive data about participants' experiences, reflections, and perspectives regarding gender-affirming care. Each session was led by a trained facilitator using a semi-structured interview guide, ensuring consistency while prompting open discussion. Participants were encouraged to reflect on their emotional responses during the simulation, challenges, and strategies for implementing gender-affirming care in clinical settings. Additionally, the TGNC standardized patients shared their lived experiences in seeking healthcare, providing firsthand insights into both affirming and non-affirming interactions with healthcare providers. This exchange fostered meaningful discussion, self-reflection, and the identification of strategies to enhance culturally competent, gender-affirming nursing care. Given the sensitive nature of the discussion, sessions were not video- or audio-recorded. Instead, detailed notes were taken by the facilitator to capture participant insights while ensuring confidentiality and psychological safety accurately. Sessions lasted approximately 20 minutes, and data from these notes were later analyzed to identify themes.

Data Analysis

Data analysis was conducted using SPSS version 29. For quantitative analysis, pre- and post-simulation scores from the TABS instrument were compared using a paired sample t-test. The paired sample t-test assesses whether there is a statistically significant difference between the mean pre- and post-simulation scores, providing insight into the impact of the simulation-based training on nursing students' attitudes and beliefs toward TGNC individuals (Tappen, 2016). This analysis allowed for an objective evaluation of attitude shifts resulting from the intervention. The level of significance was set at $p < 0.05$.

Data from focus group debriefing sessions were analyzed using thematic analysis, following the framework outlined by Braun and Clarke (2022). Notes taken during the debriefing sessions were reviewed, coded, and categorized into themes to identify patterns in participants' experiences and reflections. An inductive approach was used to ensure participants' perspectives were accurately represented.

Results

Demographics

The study sample ***(Table 4.2, See Appendix)*** consisted of 13 cisgender adult participants, all of whom identified as women and ranged in age from 20 to 21. Participants were predominantly white (92.3%), with one participant identifying as African American (7.7 %). All participants were enrolled in the College of Nursing, with four classified as juniors and nine as seniors.

TABS scores

A paired-sample t-test was conducted to evaluate changes in attitudes and beliefs toward TGNC individuals post-simulation compared with pre-simulation. Results ***(Table 4.3, See Appendix)*** showed a slight but non-statistically significant increase in interpersonal comfort *(*mean difference = 0.19, CI [-0.13, 0.51], t = 1.31, $p = 0.22$) and human value (mean difference = 0.22, CI [-0.05, 0.48], t = 1.75, $p = 0.11$). Scores related to sex and gender beliefs showed a larger but non-statistically significant increase (mean difference = 0.44, CI [-0.02, 0.90], t = 2.07, $p = 0.06$), suggesting a potential positive shift in beliefs about gender fluidity.

The Wilcoxon signed-rank test was used to analyze changes in individual item responses on the TABS from pre- to post-simulation. Under Factor 1: Interpersonal Comfort ***(Table 4.4***, ***See Appendix)*** the item "I would be comfortable being in a group of transgender individuals" showed

a statistically significant increase (mean difference = 0.46, SD = 0.52; $Z = 2.45$, $p = 0.01$. Within Factor 2: Sex/Gender Beliefs ***(Table 4.5, See Appendix)***, the item "If you are born male, nothing you do will change that" also showed a statistically significant increase (mean difference = 0.62, SD = 1.04; $Z = 1.93$, $p = 0.05$). Although no items within Factor 3: Human Value ***(Table 4.6, See Appendix)*** reached statistical significance, all five items reflected “strongly agree” for all participants post-simulation. Notably, three of these items were already scored as “strongly agree” in the pre-simulation survey, suggesting a ceiling effect. The remaining two items demonstrated improvement, but the changes were not statistically significant.

Focus Group Themes

A thematic analysis of focus group discussions revealed four key themes: (1) Increased Comfort and Confidence, (2) Power of Authentic Representation, (3) Enhanced Empathy Through Lived Experience, and (4) Commitment to Inclusive and Respectful Practice.

Increased comfort and confidence

Participants consistently described a noticeable increase in comfort in discussing gender identity and using inclusive language. One student shared, "It [the simulation] allowed me to become more comfortable talking about gender. I struggle sometimes because although I believe in gender-affirming care, I don't want to say the wrong thing or upset the patient." Another student commented, "Before this simulation, I felt a little unsure of how to ask for a preferred name or pronouns, but I now feel more confident in my ability to do that." Students noted they left the simulation feeling more confident initiating conversations about pronouns and preferred names and creating inclusive environments.

Power of authentic representation

A recurring sentiment across responses was the impact of working with an actual TGNC-standardized patient. Students stated that the lived experience and insights shared by the TGNC-standardized patient gave the simulation a sense of credibility that a cisgender actor could not have replicated. One student remarked, "If the simulated patient wasn't really trans, then I would have been less scared to misgender them." Another echoed this sentiment, stating, "A non-transgender actor would not have been able to accurately express their feelings and struggles… It was great to be able to ask questions about how to improve healthcare for transgender patients from an actual person."

Enhanced empathy through lived experience

Students expressed deep appreciation for the opportunity to hear first-hand accounts from TGNC individuals about their experiences within the healthcare system. The students felt the TGNC standardized patients added emotional depth to the simulation and helped them better understand how bias can influence patient care. One student shared, "We don't get to talk about minority communities such as trans individuals and their experience with care very much in classes. Hearing his first-hand experience made me really understand the weight that certain actions have." Students repeatedly described the session as eye-opening, moving, and transformative in their perception of what gender-affirming care truly requires.

Commitment to inclusive and respectful practice

The students described how the simulation helped them reflect on integrating gender-affirming care into their future nursing practice. Many students reported a renewed commitment to ensuring TGNC patients feel safe, respected, and heard. This commitment was evident in their reflections, where they expressed awareness of how their actions, even small ones like using a

patient's preferred name, can either reinforce stigma or build trust. One participant stated, "This simulation will help me in future interactions as I will now create a habit of asking every patient what they prefer to be addressed as." Another shared, "I will also make sure to address them by their preferred name and pronouns even behind their back and advocate for them even when they can't hear."

Discussion

This study explored the impact of a simulation experience of gender-affirming, utilizing TGNC standardized patients, on prelicensure nursing students' attitudes and beliefs toward TGNC individuals. Guided by Rivera's GANC model, the simulation was designed to foster authentic, respectful, and inclusive nurse-patient relationships. The findings offer insight into how experiential learning grounded in theory can shape nursing students' understanding and readiness to provide gender-affirming care. The descriptive data gathered from post-simulation focus group debriefings further highlight the impact of the simulation on nursing students' attitudes, beliefs, and preparedness to deliver gender-affirming care. Through thematic analysis, four key themes were identified: (1) Increased Comfort and Confidence, (2) Power of Authentic Representation, (3) Enhanced Empathy Through Lived Experience, and (4) Commitment to Inclusive and Respectful Practice. These themes provide insight into how students internalized and applied the concepts of gender-affirming care and present compelling evidence of the effectiveness of simulation as a teaching tool, as well as context for the quantitative data.

The TABS scores demonstrated generally positive baseline attitudes toward TGNC individuals among participating students. Pre-simulation scores revealed a high degree of agreement with affirming statements and disagreement with discriminatory ones, suggesting many participants entered the simulation already holding inclusive beliefs. For example, items

such as “Transgender individuals should be treated with the same respect and dignity as any other person” received strong agreement even prior to the intervention. Where shifts occurred, they were often from “agree” to “strongly agree” on affirming items or from “disagree” to “strongly disagree” on bias-based statements, demonstrating refinement rather than reversal of beliefs.

This trend may, in part, be attributed to the self-selected nature of the sample. Participation in the simulation study was voluntary, and it is likely that students who signed up did so out of interest in gender-affirming care or a desire to improve their comfort and competency in this area. These motivations may have contributed to higher baseline scores and potentially reduced the observable impact of the intervention. Additionally, the generational context of these learners is worth considering. Recent research has suggested that younger generations, including many current nursing students, exhibit more progressive attitudes toward gender identity and sexual orientation compared with older cohorts (Pew Research Center, 2022). McKay et al. (2022) similarly reported that younger nursing students generally accept TGNC individuals more than their older counterparts, which may reflect broader cultural shifts in gender norms, media representation, and advocacy visibility.

The interpersonal comfort subscale assesses how at ease respondents feel during social or professional interactions with TGNC individuals. While most items did not achieve statistical significance, one item, "I would be comfortable being in a group of transgender individuals," demonstrated statistically significant improvement, indicating the simulation effectively increased students' levels of comfort in inclusive environments. Several other items, such as "I would feel comfortable if my next-door neighbor were transgender" and "If I knew someone was transgender, I would still be open to forming a friendship with that person," exhibited modest

improvements suggesting significant, positive attitudinal shifts. Although the changes were not always statistically significant, consistent trends across items imply that the simulation reinforced inclusive behaviors and attitudes in social contexts, particularly by providing students with a low-risk environment to reflect on potential biases.

These improvements in interpersonal comfort were echoed in the themes derived from the analysis of the focus group debriefings. For example, many students reported feeling an initial uncertainty or fear of "saying the wrong thing" when caring for TGNC patients despite holding affirming values. The simulation offered a psychologically safe space to explore language, pronouns, and affirmative communication, which helped reduce their anxieties. By engaging directly with TGNC standardized patients in realistic scenarios, students stated they felt more at ease initiating conversations about identity and care preferences. This theme aligns with Rivera's GANC model, highlighting the significance of relationship-building through self-reflection and open, nonjudgmental dialogue.

The sex/gender beliefs subscale evaluates students' beliefs about the nature of sex and gender, specifically the extent to which these align with binary, biological essentialist views. While most items demonstrated only moderate change, the item "If you are born male, nothing you do will change that" showed a statistically significant shift, indicating a crucial move away from rigid, biologically deterministic views of gender. Overall, the direction of change across nearly all items in this subscale reflected a significant shift toward a more expansive and affirming understanding of gender identity. For example, mean differences on items such as "Humanity is only male or female; there is nothing in between" and "All adults should identify as either male or female" were positive, suggesting a significant decrease in students' endorsement of binary or restrictive gender beliefs following the simulation.

These findings support the role of the simulation in challenging assumptions and providing experiential context for more fluid and affirming understandings of gender. Importantly, this subscale may have provoked the most cognitive dissonance among students, as shifting deeply held beliefs about biological sex and gender identity can require sustained exposure and reflection. The inclusion of transgender standardized patients who shared personal experiences likely contributed to this subtle but meaningful shift.

The inclusion of TGNC individuals as standardized patients was as one of the most powerful components of the simulation. Students consistently emphasized that having a real transgender person portray the patient—not a cisgender actor—made the experience more meaningful, impactful, and realistic. Students' comments reflected both the increased sense of accountability and the emotional depth that authenticity added to the learning environment. Students noted that hearing personal stories during the debriefing helped them connect with the content on a deeper level. This authenticity aligns with the concept of engagement in the GANC model, which encourages nurses to seek out and learn directly from those with lived experiences. The emotional resonance and depth created by authentic representation strongly suggest that future simulations should prioritize lived experiences over role-played identity whenever possible.

The human value subscale assesses participants' core beliefs regarding the inherent worth and dignity of TGNC individuals. The absence of statistically significant change on this subscale is not surprising, considering the overwhelmingly positive baseline responses. For instance, students already strongly agreed with the statement, "I would find it highly objectionable to see a transgender person being teased or mistreated." The simulation did not significantly increase these already affirming scores, which may indicate a ceiling effect. These findings affirm that the

students' foundational values are aligned with the goals of gender-affirming care, but affective and relational learning may be more powerful than measurable attitude shifts in this domain.

The TABS scores support the effectiveness of simulation, particularly when including TGNC-standardized patients, as a powerful educational tool in advancing gender-affirming nursing care. The observed shifts in student attitudes across all three subscales demonstrate that even learners with affirming baseline beliefs benefited from the experiential learning process. This simulation allows students to apply knowledge in real-time, reflect on personal biases, and engage in meaningful patient-centered communication, a cornerstone of nursing practice. Embedding simulation into nursing curricula not only supports the development of cultural humility and inclusive practice, as emphasized by Rivera's GANC model, but also lays the foundation for more equitable care delivery. As nursing education continues to evolve, simulation grounded in lived experiences offers a promising path forward in preparing nurses to meet the needs of diverse populations with compassion, competence, and confidence.

These findings were captured even more clearly in the qualitative analysis of focus group debriefings. Students reported that hearing firsthand accounts from TGNC standardized patients helped deepen their empathy and understanding of the systemic and interpersonal challenges TGNC individuals face in healthcare. These moments of personal storytelling transformed abstract concepts into concrete, emotional realities, fostering reflective learning and cultural humility, two central elements of Rivera's GANC model. The simulation moved students beyond procedural understanding into the realm of affective learning, prompting them to consider how seemingly small actions, such as the use of pronouns or accurate documentation, can significantly influence a patient's levels of trust and comfort. This theme illustrates the power of narrative and shared experience in shaping compassionate nursing practice.

Perhaps most encouragingly, students left the simulation with a renewed sense of professional responsibility to provide inclusive care. Many expressed a commitment to asking each patient about their preferred names and pronouns, advocating for TGNC patients, and addressing identity-related stigma in clinical environments. This reflects the knowledge-to-action transition described in the GANC model, where relationships and reflection inform meaningful engagement. Students communicated a clear understanding that gender-affirming care is not "extra" or optional; it is essential and respectful nursing practice. The simulation acted as a catalyst for this transformation, effectively bridging theory and practice in a tangible, student-centered way.

The findings from this study have significant implications for nursing education, clinical practice, and the advancement of equitable care for TGNC individuals. This study contributes to the growing body of evidence supporting simulation as an effective strategy for teaching culturally responsive care. More specifically, it underscores the unique benefits of including TGNC individuals as standardized patients in gender-affirming care education. By prioritizing lived experiences within the learning environment, we humanize the care encounter and enhance students' ability to engage with empathy, authenticity, and confidence.

The success of this simulation emphasizes a crucial opportunity for nursing programs to incorporate gender-affirming care into their curricula. Simulation transcends passive content delivery, providing a more immersive and effective learning experience. As nursing programs adapt to fulfill the AACN's (2021) Core Competencies, simulations like the one included in this study present an evidence-based approach to enhancing person-centered care, population health, and diversity, equity, and inclusion.

Further, engaging TGNC individuals as educational collaborators disrupt the traditional, cisnormative construction of healthcare learning and ensures TGNC voices guide the development and implementation of care strategies. This aligns directly with Rivera's GANC model, particularly the components of engagement and knowledge, which emphasize learning through relationships, shared experiences, and cultural humility. Faculty development and institutional support will be essential to expanding and sustaining these kinds of experiential opportunities across nursing education.

This study also carries implications for the future of nursing practice. As students transition into professional roles, the attitudes and skills shaped through gender-affirming simulations will influence how they interact with TGNC patients across clinical settings. Practicing nurses who are confident, affirming, and knowledgeable are better positioned to reduce the discrimination, microaggressions, and structural barriers that TGNC individuals often face in healthcare. By cultivating inclusive, trauma-informed communication habits early in their education, future nurses are more likely to uphold principles of equity and respect throughout their careers.

The ability of simulation to improve comfort and confidence when interacting with TGNC individuals, especially in areas like pronoun usage, identity validation, and advocacy, has the potential to significantly impact patient satisfaction and reduce health disparities. By contributing to safer, more welcoming healthcare environments, these outcomes are ethically imperative and reflect the nursing profession's broader commitment to social justice, health equity, and culturally safe care.

At a broader level, this study reinforces the importance of including TGNC voices in shaping the future of healthcare education and delivery. Involving TGNC-standardized patients

and advisors not only elevates their expertise but also empowers them to disrupt systems in which care is developed about communities rather than with them. This collaborative, community-informed approach promotes mutual trust, challenges cisnormative assumptions, and helps repair the deep-seated mistrust many TGNC individuals hold toward the healthcare system. When nursing students experience the impact of respectful, gender-affirming care firsthand—through the stories and presence of TGNC individuals—they are more likely to carry those values forward into practice. In turn, TGNC patients may experience more positive and affirming encounters, leading to improved access, earlier care-seeking behavior, and ultimately, better health outcomes. This potential for improved health outcomes is a reason for optimism and hope in the field of inclusive care.

Limitations

While this study offers meaningful insights into the effectiveness of including TGNC standardized patients in nursing simulation, several limitations must be acknowledged. First, the small sample size (n = 13) limits the generalizability of the findings. According to Kim et al. (2016), simulation-based studies including standardized patients ideally include at least 18 participants to ensure sufficient variability in learning outcomes and performance. Although rich data were gathered, a larger and more diverse sample would have increased statistical power and provided greater generalizability of the results. Second, participation in this study was voluntary, which may have introduced self-selection bias. Students who chose to participate likely had an existing interest in or positive attitudes toward gender-affirming care, which could explain the high baseline scores on the TABS. While this does not diminish the intervention's value, it suggests that the observed impact may be less pronounced in students with neutral or negative baseline attitudes, who may also be the students most in need of this training.

Furthermore, it's important to recognize that the study was conducted at a single institution, which restricts its applicability across different academic settings. Cultural, regional, or institutional differences could influence students' attitudes and beliefs about gender-affirming care. The study also involved a single exposure to simulation, which might not be sufficient for long-term behavior change or skill retention. Repeated simulation experiences and longitudinal follow-up would offer a more comprehensive understanding of the intervention's effectiveness over time.

Another limitation is that no recordings were made of the focus group debriefings due to the sensitive nature of the topic. While meticulous field notes were taken to ensure accuracy and preserve participants' voices, audio-recorded transcripts may have allowed for a deeper and more nuanced thematic analysis.

Finally, although this study's key strength was its use of TGNC standardized patients, this may also have introduced variability in actor delivery and emotional tone between groups. While efforts were made to standardize the scenarios and training, future research might consider using multiple standardized patients and incorporating actor fidelity checks to ensure consistency.

Conclusion

The findings from this study provide significant evidence to the expanding literature advocating for the integration of gender-affirming care into nursing education. Both quantitative and qualitative findings show that simulation, particularly when including TGNC individuals as standardized patients, can effectively shape nursing students’ attitudes and beliefs regarding the provision of inclusive, affirming care. Even among participants who started with relatively positive attitudes, the simulation nurtured deeper empathy, enhanced comfort, and a clearer understanding of professional responsibility. These outcomes align closely with Rivera’s GANC

model, especially in the areas of relationship-building, reflective learning, and meaningful engagement with patients.

To build on these findings, future research could investigate the effects of including TGNC versus cisgender standardized patients in gender-affirming simulations to determine if authenticity significantly impacts learning outcomes. Moreover, longitudinal studies are suggested to evaluate the long-term effects of simulation on clinical practice and the implementation of gender-affirming principles over time. By further refining and expanding these educational approaches, nursing programs can enhance their preparation of future nurses to provide compassionate, competent, and culturally safe care to all patients, including those in the TGNC community.

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Appendix

Table 4.1 Theoretical Concepts and Relational Propositions

Concepts	Relational Propositions
Knowledge	"If gender-affirming nursing actions foster therapeutic communication and trust, then Holistic Patient Wellness is supported."
Engagement	"If a caring relationship is established, a positive effect on Holistic Patient Wellness is generated."
Relationships	"If the nurse advocates for healthcare equity, then improved patient outcomes are achieved."
	"If care partners engage in life-long learning (knowledge), wisdom gained will have a positive impact on Holistic Patient Wellness."

Note. Adapted from "Introduction to Rivera's Gender Affirming Nursing Care Model: A Middle-Range Theory", Rivera, D.; Jukkala, A.; & Rohini, T., 2022, Sage Journals, 40(3)

Table 4.2 Demographic Characteristics (N = 13)

Characteristics	*n*	%
Gender		
Female	13	100 %
Ethnicity/Race		
White	12	92.3 %
African American	1	7.7 %
Education		
Junior	4	30.8 %
Senior	9	69.2 %

Table 4.3 Paired Sample t-Test Results for TABS (N = 13)

TABS	Pre-Sim Mean	Post-Sim Mean	Mean Difference (SD)	t	*p*	95% CI
Factor 1: Interpersonal Comfort.	6.58	6.78	0.19 (0.53)	1.31	0.22	[-0.13, 0.51]
Factor 2: Sex/Gender Beliefs	5.89	6.33	0.44 (0.77)	2.07	0.06	[-0.02, 0.90]
Factor 3: Human Value	6.78	7	0.22 (0.44)	1.75	0.11	[-0.05, 0.48]

Note: *$p < 0.05$

Table 4.4 Wilcoxon Signed-Rank Test for TABS –Interpersonal Comfort (N = 13)

TABS Factor 1: Interpersonal Comfort	Pre-Sim Mean	Post-Sim Mean	Mean Difference (SD)	Z	*p*
I would feel comfortable having a transgender person into my home for a meal.	6.69	6.85	0.15 (0.56)	1.0	0.32
I would be comfortable being in a group of transgender individuals.	6.38	6.85	0.46 (0.52)	2.45	0.01*
I would be uncomfortable if my boss was transgender.	6.23	6.69	0.46 (1.81)	0.00	1.00
I would feel uncomfortable working closely with a transgender person in my workplace.	6.23	6.46	0.23 (1.01)	0.45	0.66
If I knew someone was transgender, I would still be open to forming a friendship with that person.	6.31	6.85	0.54 (1.71)	1.13	0.26
I would feel comfortable if my next-door neighbor was transgender.	6.46	6.92	0.46 (1.71)	0.82	0.41
If my child brought home a transgender friend, I would be comfortable having that person into my home.	6.69	6.77	0.08 (0.64)	0.45	0.66
I would be comfortable working for a company that welcomes transgender individuals.	6.85	6.92	0.08 (0.64)	0.45	0.66
I would be upset if someone I'd known for a long time revealed that they used to be another gender.	6.38	6.54	0.15 (0.69)	0.82	0.41
If I knew someone was transgender, I would tend to avoid that person.	6.23	6.23	0.0 (0.58)	0.00	1.00
If a transgender person asked to be my housemate, I would want to decline.	6.77	6.77	0.0 (1.08)	0.00	1.00
I would feel uncomfortable finding out that I was alone with a transgender person.	6.23	6.31	0.08 (0.49)	0.58	0.56
If someone I knew revealed to me that they were transgender, I would probably no longer be as close to that person.	6.15	6.30	0.15 (0.56)	1.00	0.32
If I found out my doctor was transgender, I would want to seek another doctor.	6.08	6.54	0.46 (0.97)	1.67	0.10

Note: *$p < 0.05$

Table 4.5 Wilcoxon Signed-Rank Test for TABS –Sex/Gender Beliefs (N = 13)

TABS Factor 2: Sex/Gender Beliefs	Pre-Sim Mean	Post-Sim Mean	Mean Difference (SD)	Z	*p*
A person who is not sure about being male or female is mentally ill.	6.31	6.85	0.54 (1.27)	1.41	0.16
Whether a person is male or female depends upon whether they feel male or female.	5.23	5.69	0.46 (1.39)	1.10	0.27
If you are born male, nothing you do will change that.	5.62	6.24	0.62 (1.04)	1.93	0.05*
Whether a person is male or female depends strictly on their external sex-parts.	5.69	6.23	0.54 (1.27)	1.51	0.13
Humanity is only male or female; there is nothing in between.	5.54	6.23	0.69 (1.38)	1.72	0.08
If a transgender person identifies as female, she should have the right to marry a man.	6.77	6.85	0.08 (0.49)	0.58	0.56
Although most of humanity is male or female, there are also identities in between.	5.92	6.31	0.39 (1.12)	1.19	0.24
All adults should identify as either male or female.	5.77	6.31	0.54 (1.20)	1.55	0.12
A child born with ambiguous sex-parts should be assigned to be either male or female.	5.46	5.77	0.31 (2.10)	0.32	0.75
A person does not have to be clearly male or female to be normal and healthy.	6.62	6.85	0.23 (0.72)	1.13	0.26

Note: *$p < 0.05$

Table 4.6 Wilcoxon Signed-Rank Test Human Value (N = 13)

TABS Factor 3: Human Value	Pre-Sim Mean	Post-Sim Mean	Mean Difference (SD)	Z	*p*
Transgender individuals are valuable human beings regardless of how I feel about transgenderism.	7.00	7.00	0.00 (0.00)	0.00	1.00
Transgender individuals should be treated with the same respect and dignity as any other person.	6.92	7.00	0.08 (0.28)	1.00	0.32
I would find it highly objectionable to see a transgender person being teased or mistreated.	6.00	7.00	1.00 (2.04)	1.84	0.07
Transgender individuals are human beings with their own struggles, just like the rest of us.	7.00	7.00	0.00 (0.00)	0.00	1.00
Transgender individuals should have the same access to housing as any other person.	7.00	7.00	0.00 (0.00)	0.00	1.00

Note: *$p < 0.05$,

CHAPTER FIVE: CONCLUSION

This dissertation, Transforming Care: A Gender-Affirming Simulation Study, examined the integration of a simulation of gender-affirming care into undergraduate nursing education through the inclusion of transgender and gender non-conforming (TGNC) individuals as standardized patients. Through the manuscripts presented, the dissertation combines a synthesis of existing literature, a theoretical analysis of Rivera's Gender-Affirming Nursing Care (GANC) model, and a mixed-methods study that assesses the effects of a simulation-based intervention on nursing students' attitudes and beliefs about gender-affirming care.

The significance of this work was grounded in the need to address persistent health disparities experienced by TGNC individuals. Chapter 1 introduced the problem of inadequate nursing education regarding TGNC health, the potential of simulation-based learning to address gaps, and the rationale for including real TGNC standardized patients to enhance authenticity of the simulation. Chapter 2 provided an integrative review of the current state of nursing education and highlighted a consistent lack of content, faculty preparedness, and clinical exposure related to gender-affirming care. The findings underscored the necessity of inclusive, evidence-informed teaching strategies that incorporate voices from the TGNC community.

Chapter 3 offered a critical theory analysis of Rivera's GANC model, providing the philosophical and conceptual grounding of the simulation intervention. The model's core tenets—relationships, knowledge, and engagement—aligned seamlessly with the overall goals of the study. Its emphasis on self-reflection, cultural humility, and the therapeutic nurse-patient relationship directly informed both the simulation design and the approach to analyzing student outcomes, reinforcing the research's coherence and relevance.

Chapter 4 presents the findings of the mixed-methods study to examine the impact of the simulation with TGNC standardized patients that led to measurable improvements in several areas of the Transgender Attitudes and Beliefs Scale (TABS). Although students entered the study with positive baseline attitudes, likely due to self-selection and generational shifts, the simulation reinforced inclusive beliefs and encouraged more nuanced reflection. Qualitative analysis of focus group debriefings revealed four key themes: increased comfort and confidence, the power of authentic representation, enhanced empathy through lived experience, and a commitment to inclusive and respectful practice. Students consistently emphasized that hearing from real TGNC individuals deepened their empathy, improved communication, and transformed their views on gender-affirming care.

Self-reflection is a cornerstone of Rivera's GANC Model and was vital to the effectiveness of the gender-affirming simulation. In this context, self-reflection encouraged nursing students to critically examine their attitudes and beliefs about TGNC individuals. This introspective process helped students recognize and address preconceived notions that may affect their future ability to provide unbiased, empathetic care. The simulation included debriefing with structured reflection sessions after each scenario during which students could discuss their experiences, challenges, and insights with peers, standardized patients, and instructors. Students could better understand their reactions through these reflective practices and develop greater cultural humility. This continuous cycle of action and reflection ensured students acquired practical skills in gender-affirming care and began to internalize the attitudes and beliefs necessary for respectful and effective patient interactions. Ultimately, self-reflection fostered a deeper, more empathetic understanding of TGNC patients, enhancing the overall impact of the simulation on students' professional development.

Relational learning is a crucial component of Rivera's GANC Model and was deeply integrated into the gender-affirming simulation. This concept involved learning through relationships and emphasized the importance of meaningful interactions between nursing students and TGNC standardized patients during the simulation. These interactions mirrored real-world clinical encounters, allowing students to practice and enhance their communication and caregiving skills in a supportive and realistic environment. Through these relational experiences, students came to appreciate the nuances of gender-affirming care, such as using correct pronouns, understanding the unique health care needs of TGNC patients, and establishing trust-based therapeutic relationships. By prioritizing relational learning, the simulation ensured students gained technical proficiency while also developing the interpersonal skills essential for delivering holistic, patient-centered care to TGNC individuals. Integrating cultural humility into the simulation encouraged nursing students to keep an open mind, acknowledging the ongoing nature of learning and the importance of evolving with every patient encounter. This principle ensured the simulation promoted genuine empathy and understanding, both of which are essential for delivering effective gender-affirming care.

"If gender-affirming nursing actions foster therapeutic communication and trust, then Holistic Patient Wellness is supported" (Rivera et al., 2022). The simulation scenarios emphasized the importance of therapeutic communication and trust-building between nursing students and TGNC patients. Students practiced using respectful language, appropriate pronouns, and active listening skills by engaging in realistic patient interactions. These scenarios were evaluated based on how well students establish trust and open lines of communication, which are critical components of holistic patient wellness. The debriefing sessions allowed students points

of important reflection regarding their communication strategies with feedback to improve their skills.

"If a caring relationship is established, a positive effect on Holistic Patient Wellness is generated" (Rivera et al., 2022). The simulation allowed students to build caring, empathetic relationships with TGNC patients. Scenarios included complex patient cases that required students to demonstrate compassion, empathy, and a deep understanding of the patient's unique needs. The impact of these caring relationships on patient wellness was assessed through standardized patient feedback and self-reflection exercises. The goal was to highlight the connection between empathy, relationship-building, and improved patient outcomes.

"If the nurse advocates for healthcare equity, then improved patient outcomes are achieved" (Rivera et al., 2022). Advocacy was a key focus of the simulation scenarios, whereby students encountered situations that required them to address disparities and advocate for equitable care. For example, students role-played scenarios involving access to gender-affirming treatments or navigating health care systems that lack inclusivity. The effectiveness of these advocacy efforts was evaluated through scenario outcomes and student reflections on their advocacy roles. This helped students understand the importance of equity in health care and the direct impact on patient outcomes.

"If care partners engage in lifelong learning (knowledge), wisdom gained will positively impact Holistic Patient Wellness" (Rivera et al., 2022). The simulation integrated elements of lifelong learning by encouraging students to continuously update their knowledge of gender-affirming care practices. Pre-simulation nursing courses provided foundational knowledge, while post-simulation debriefings and discussions reinforced the importance of ongoing education. Students were encouraged to seek additional resources and critically reflect on their learning

process. This emphasis on lifelong learning aimed to instill a commitment to continuous improvement and wisdom, ultimately enhancing their ability to support holistic patient wellness.

The attitudes and beliefs variables were central to the effectiveness of this simulation. These variables were the most logical to measure because of the direct influence on the quality of care that health care providers deliver to TGNC patients. *Attitudes* in this study referred to nursing students' predispositions or tendencies to respond positively or negatively towards TGNC individuals. These attitudes encompassed their feelings, inclinations, and evaluations regarding TGNC people and their health care needs. Attitudes were measured using the TABS, which includes items that assess emotional reactions, levels of acceptance, and comfort in providing care to TGNC patients (Kanamori et al., 2017). *Beliefs* in this study referred to the convictions or acceptance nursing students hold regarding the truths about transgender individuals and their health care needs. These included their understandings of gender identity, the legitimacy of transgender identities, and the necessity for specific health care practices that affirm and support transgender individuals. Beliefs also were measured using the TABS, which includes items that evaluate knowledge, acceptance of transgender identities, and the importance of gender-affirming care (Kanamori et al., 2017).

The simulation was a powerful tool for addressing the root causes of health care disparities faced by TGNC individuals. Negative or uninformed attitudes and beliefs of health care providers can lead to biases, discrimination, and suboptimal care (Abeln & Love, 2019; Johnson et al., 2019). The simulation intervention has the potential to foster positive and well-informed attitudes and beliefs, which in turn can foster a therapeutic relationship, trust, and better health outcomes. Measuring changes in these variables before and after the simulation

clearly indicated the impact of the simulation on students' levels of readiness to provide gender-affirming care.

Finally, the advisory board composed of TGNC individuals, nursing faculty, former students, and simulation experts guided the development and review of the simulation, ensuring authenticity, clinical relevance, and cultural competence. Additionally, the focus group debriefings conducted with nursing students and TGNC standardized patients explored their experiences, emotional responses, and reflections on the simulation. By integrating multiple perspectives, this study provided a comprehensive analysis of the effectiveness of gender-affirming simulation in nursing education, contributing to the growing body of research that advocates for inclusive, patient-centered care for TGNC individuals.

The chapters of this dissertation collectively form a cohesive narrative that advocates for the use of simulation, particularly with TGNC standardized patients, as a teaching strategy to improve nursing students' readiness to provide inclusive, affirming care. This work not only contributes to the body of nursing education research but also addresses national priorities concerning health equity, diversity, and culturally safe care.

Future research should continue to explore how the inclusion of TGNC standardized patients influences student learning outcomes, especially in comparison with traditional simulation models that use cisgender actors. Longitudinal studies also could help ascertain whether the positive changes in beliefs and comfort levels persist as students transition into professional practice. Expanding this research across institutions and involving interprofessional learners could further enhance the reach and impact of this educational model.

Ultimately, this dissertation advocates for a shift in nursing education towards more inclusive, affirming, and equity-oriented practices. By centering TGNC voices, utilizing a relational and

reflective theoretical framework, and incorporating immersive simulation, nursing educators can prepare future nurses to compassionately and competently meet the needs of all patients. In doing so, we move one step closer to a health_care system that upholds every individual's dignity, identity, and humanity.

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VITA

Eddie Petrie was born and raised in East Tennessee. After graduating from the Tennessee College of Applied Technology, he began his nursing career as a Licensed Practical Nurse. He continued his education through Excelsior College, earning an Associate of Science in Nursing and becoming a Registered Nurse. He later completed both a Bachelor of Science in Nursing and a Master of Science in Nursing with a focus in Nursing Education through Western Governors University of Tennessee.

Mr. Petrie has a broad range of clinical nursing experience, including medical-surgical nursing, respiratory care, and skilled rehabilitation. He is certified in wound care and previously served as an Infection Preventionist. His extensive experience is further demonstrated in his progressive leadership roles in long-term care, where he served as Assistant Director of Nursing for three years and Director of Nursing for one and a half years.

Transitioning into academia, Mr. Petrie currently teaches Population Health Nursing and is passionate about preparing future nurses to provide equitable, community-focused care. His intellectual curiosity is evident in his research interests, which include public health, vulnerable populations, and the Drivers of Health.

Eddie Petrie is a candidate for the Doctor of Philosophy in Nursing at the University of Tennessee, Knoxville. His goal is to further his knowledge and skills in nursing research and education, with the aim of making significant contributions to the field of nursing and improving patient care.