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Transgender and gender diverse health education for future nurses: Students' knowledge and attitudes

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Abstract

Background: Compared to cisgender peers, transgender and gender diverse (TGD) people experience significant health disparities associated with discrimination and limited access to appropriate care in healthcare settings. Nurses represent the largest segment of the United States (US) healthcare workforce; however, US nursing programs only dedicate approximately 2.12 h to Lesbian, Gay, Bisexual, and TGD (LGBT)-related content.

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CRediT authorship contribution statement

Athena DF Sherman: Conceptualization, Methodology, Original draft preparation, Writing- Reviewing and Editing, Formal analysis.
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Kelly Bower: Supervision, Original draft preparation, Writing- Reviewing and Editing.

Ethical approval

The Johns Hopkins Medicine Institutional Review Board deemed this study to not be human subjects research; therefore, no consent was required or obtained.

Declaration of competing interest

Authors have no conflicts of interest to disclose. No competing financial interests exist for all authors. This analysis has been presented in the previous format: Ford, A. McDowell, K., Clark, K., Bower, K. Trans* Health Education for Future Nurses: Students' knowledge and attitudes before and after transgender and non-binary curriculum integration. 2019 National Transgender Health Summit, San Francisco, CA (Oral).

Objectives/design/setting/participants: To fill the gap in TGD-related nursing education, the Transgender Curriculum Integration Project (TCIP) developed and integrated an evidence-based curriculum specific to TGD health into the pre-licensure accelerated Bachelor's in Nursing Science (BSN) program at Johns Hopkins School of Nursing. The purpose of this study was to assess the preliminary efficacy and feasibility (i.e., attrition, engagement, acceptability) of the TCIP in improving the TGD-related health knowledge and attitudes among a sample of pre-licensure nursing students.

Methods: TCIP utilized a self-administered online survey to assess students' knowledge and attitudes about TGD health prior to (time point 1) and following (time points 2 and 3) the integration of TGD-specific content into five nursing pre-licensure courses. Rank-based nonparametric testing using Kruskal-Wallis H and Mann-Whitney U were conducted to determine if there were statistically significant differences in responses between the three time points. Thematic content analysis was used to determine themes present among short answers.

Results: Findings indicate TGD-specific content improved student's gender sensitivity overtime, with improvements in self-reported skills in providing care for TGD people and knowledge of additional TGD-specific resources. However, gender sensitivity remains low among student's and students requested more TGD content suggesting room for further improvement.

Conclusions: Findings support the efficacy of TCIP and highlight complexities of curricular change that can guide future curricular integration and evaluation in nursing programs nation-wide.

Keywords

Gender minority; LGBT; Intervention; Curriculum; Efficacy

1. Introduction

In the United States (US), there are currently an estimated 1.3 to 2.4 million transgender and gender diverse (TGD) people (i.e., people whose gender identity is incongruent with that normatively expected of their sex assigned at birth; also referred to as gender non-conforming) (Flores et al., 2016). TGD people are especially vulnerable to health disparities and inequities compared to cisgender people (i.e., people whose gender identity is congruent with their sex assigned at birth) (Institute of Medicine, 2011a). Specifically, when compared with cisgender peers, TGD people experience significantly higher rates of mental health disorders (Valentine and Shipherd, 2018; Sherman et al., 2020b), eating disorders (Witcomb et al., 2015), alcohol use (Gilbert et al., 2018), tobacco use (James et al., 2016), human immunodeficiency virus (HIV) (Baral et al., 2013), and other sexually transmitted infections (STI) (Hafeez et al., 2017). These health inequities have been linked to reports of discrimination and limited access to knowledgeable healthcare providers (HCP) (Cicero et al., 2019; Ford, 2019; Sherman et al., 2020a; Testa et al., 2017; Hughto et al., 2015).

Nearly 25% of TGD people report delaying healthcare seeking in the past year due to fear of mistreatment in healthcare settings and 33% at least one negative experience with a HCP (James et al., 2016). Avoidance of healthcare, as well as exposure to stress and stigma in healthcare settings, perpetuate the health disparities and inequities within this population

(Hughto et al., 2015; Jaffee et al., 2016). The challenges TGD people experience when navigating the American healthcare system may be partially explained by the lack of TGD-specific content in the curriculum for health professionals. Poor education on TGD-specific healthcare contributes to HCP feelings of uncertainty and even apathy toward the unique needs of TGD people (Poteat et al., 2013). Consequently, 25% of TGD people report having had to shoulder the burden of educating their HCP about TGD health themselves (James et al., 2016).

Nurses represent the largest segment of the US healthcare workforce; baccalaureate nursing programs in the US graduated 128,644 nurses in 2016 alone (American Association of Colleges of Nursing, 2017; Institute of Medicine, 2011b) Therefore, the education and training of nurses in cultural humility and TGD -specific health knowledge can be examined as a means to address the discrimination and stigma that is reported by TGD people in healthcare settings (Hughes et al., 2020). Although, few studies have examined students' attitudes toward TGD individuals specifically, as distinct from cisgender LGB individuals, research assessing nursing student knowledge of LGBT health overall has found inadequate levels of preparedness for providing LGBT-sensitive care (Lim and Hsu, 2016). More than 50% of studies examining nursing student perceptions of LGBT people have found that students hold negative or neutral attitudes toward LGBT people (Lim and Hsu, 2016). Twenty percent of nursing students believe sex and gender are synonyms and 24% do not believe that suicide screenings are a key component of health assessments for LGBT patients (Strong and Folse, 2014). These misperceptions are likely rooted to the fact that most baccalaureate nursing programs contain merely 2.12 h of LGBT-related content in their curriculums (Lim et al., 2013). In fact, there is not even an estimation as to how much LGBT content in baccalaureate nursing programs is related specifically to TGD healthcare (Lim et al., 2013). This deficit in dedicated education related to LGBT health content, specifically as it relates to TGD patients, represents both a need and an opportunity to increase HCP exposure to TGD health content during their didactic and clinical training experiences. This will, conceivably, imbue them with knowledge and skills necessary to provide competent and affirming care (healthcare that validates a person's sexual or gender identity) to all their patients, inclusive of all sexual orientations or gender identities.

To fill the gap in TGD-related nursing education, the Transgender Curriculum Integration Project (TCIP) developed and integrated an evidence-based curriculum specific to TGD health into the pre-licensure accelerated Bachelor's in Nursing Science (BSN) program at Johns Hopkins School of Nursing (JHSON). The purpose of this study was to assess the preliminary efficacy and feasibility (i.e., attrition, engagement, acceptability) of the TCIP in improving the TGD-related health knowledge and attitudes among a sample of pre-licensure nursing students.

2. Methods

The TCIP was a student-faculty partnership that leveraged graduate student expertise in TGD health and faculty expertise in nursing education to develop, integrate, and evaluate TGD-specific content in five core courses (i.e., professional role development, health assessment, pharmacology, psychiatric nursing, and nursing for the childbearing family) in

the JHSON accelerated BSN program. The accelerated nursing program was designed for students who had completed their nursing pre-requisite courses and had already earned a bachelor's degree in another field. A full description of the TCIP development process and details of the TGD-specific content that was integrated into the curriculum can be found elsewhere (Mcdowell and Bower, 2016). Briefly, the process of TCIP creation and delivery followed 5-steps: (1) presentation and approval of the TCIP project from the Baccalaureate Curriculum Committee; (2) identification of key topics of importance based on literature review and key-informant interviews (included topics: health inequities, gender-affirming language and best practices, preventive health, mental health, gender-affirming interventions, and prenatal care); (3) meetings with faculty members teaching key courses (Professional Role Development in Nursing, Health Assessment, Pharmacology, Psychiatric-Mental Health Nursing, and Nursing in the Childbearing Family) to create and integrate content into their specific courses; and (4) evaluation of student knowledge and attitudes toward care of TGD people at various time points. Integrated content additive to the core curriculum were delivered via stand-alone webinars, stand-alone in-class and online lectures, and integrative adaptations to existing in-class and online lectures. For a discrete outline of key integrated content, please see Mcdowell and Bower (2016).

This preliminary efficacy study evaluates pre- and post-test data of student knowledge and attitudes regarding TGD health using a self-administered online mixed-methods survey. Survey data was collected at three time points throughout the accelerated BSN program – at the start of the program (time point 1 [T1]), following the introductory webinar presented in the first semester Professional Role Development in Nursing course (time point 2 [T2]), and following the completion of the pre-licensure program (time point 3 [T3]). The JHSON Institutional Review Board determined that this was not human subjects research.

2.1. Recruitment

The surveys administered across three timepoints were emailed to all students enrolled in an accelerated BSN program between 2014 and 2015 ($N = 160$) and were presented as optional. Individuals who responded to at least one of the voluntary surveys were included in the study (T1$n = 80$, T2$n = 43$, T3$n = 31$). We collaborated with faculty and staff to advertise the survey through email, course media, social media, and in-person discussions.

2.2. Data collection

Surveys were administered via Qualtrics Online Survey Software & Insight Platform (Qualtrics, Provo, UT). Students who completed the survey received a $3 gift certificate to the JHSON coffee shop. Data was collected and analyzed at the aggregate level.

2.3. Measures

2.3.1. Demographics—Limited demographic information was gathered from students to protect the identity of the participants. The full class ($N = 160$) demographics are described in detailed (Table 1). Specific to survey participants, only age and gender were captured. Participant survey data for each time point was not linked by a study participant identification number or by participant name; therefore, we cannot track change over time

on an individual basis, only aggregated change over time based on mean scores (see Analysis for details).

2.3.2. TGD knowledge and attitudes—The Kelley et al. measure of knowledge and attitudes regarding LGBT health (8-item 5-point Likert scale; strongly disagree = 1 to strongly agree = 5) based on the Index of Attitudes toward Homosexuals (Hudson and Ricketts, 1980) and Warren Blumenfeld's (1992) framework of personal, interpersonal, institutional, and cultural aspects of homophobia, was adapted to for this study. Specifically, changes were made to the Kelley et al. measure to ensure that the survey items were specific to TGD health and the nursing student experience. Examples of altered language include, "*As a nurse*, I feel it is important for me to know about my patient's gender identity" and "I would prefer not to care for patients who are *transgender*." Pilot testing of the adapted measure revealed that participants described the questions as "clear and understandable". In addition to the measure of knowledge and attitudes regarding TGD health, participants were asked one free-text question, "Please feel free to provide any additional comments you have about caring for transgender patients."

2.4. Analysis

Univariate statistics were used to report means and standard deviations for knowledge and attitudes at each time point (T1, T2, and T3). For items 3, 4, and 6 (reverse items) in Table 3, based on Likert scale response options (i.e., 5-point Likert scale; strongly disagree = 1 to strongly agree = 5) scores 3 and below are considered TGD-sensitive, while all others are considered TGD-sensitive with scores 3 and above. TGD-sensitive indicates: (1) increased knowledge of TGD health, or (2) positive attitudes or beliefs toward TGD health or TGD people. Rank-based nonparametric testing using Kruskal-Wallis H and Mann-Whitney U were conducted to determine if there were statistically significant differences in responses between the three time points (Table 3). Given the sample size, exact significance will be the reported *p*-values (2-tailed for Mann-Whitney).

Free-text qualitative data were analyzed using thematic content analysis (Anderson, 2007). All text responses were aggregated into an excel document and individually coded by two coders. Discrepancies were resolved, codes were consolidated, and themes were identified through discussion among the two coders. Themes were then compared with quantitative findings to identify where integration improved interpretation and informed future research.

3. Results

3.1. Participants

Administrative data of all students enrolled in an accelerated BSN program between 2014 and 2015 (study population) is described in Table 1 to supplement the limited sample-specific demographic information found in Table 2. Among the 160 students enrolled, 84% were 21–30 years old and nearly 75% of students were White. Of the enrolled students, 8.8% percent reported Latinx ethnicity and 90% reported female identity (administrative data included only two options for gender, male and female). Table 2 shows age variation

across time points among actual survey participants ($\chi^2(6) = 7.4$, $p = .29$; mean ages reported in Table 2).

3.2. Univariate results

Table 3 displays the mean response score for each question across the three time points. For questions with positive wording (items 1, 2, 5, 7 and 8), higher scores (greater than or equal to 3) indicated that students' responses were, on average, more gender sensitive. For questions with negative wording (items 3, 4, and 6), lower scores (less than or equal to 3) indicated that students' responses were more gender sensitive. Across the three time points, the mean score for all questions were gender sensitive, except for item 8 ("I am aware of resources where I can get more information or places I can refer a transgender or gender non-conforming patient who has needs I am not able to meet"). For this question, students' responses were not gender sensitive at T1 (Mean [*M*] = 2.34, *SD* = 1.07), at T2 (*M* = 2.85, *SD* = 1.20), nor T3 (*M* = 2.79, SD = 1.24). We observed the highest (and most gender sensitive) responses to the following items: "As a nurse, I feel it is important for me to know about my patient's gender identity" (T1 *M* = 4.61, *SD* = 0.70; T2 *M* = 4.66, *SD* = 0.57; T3 *M* = 4.32, *SD* = 0.72) and "I would feel comfortable interacting with a transgender or gender non-conforming patient during clinical" (T1 *M* = 4.31, *SD* = 0.85; T2 *M* = 4.27, *SD* = 0.90; T3 *M* = 4.41, *SD* = 0.57).

3.3. Change in knowledge and attitudes over time

After exposure to the TGD health curriculum at JHSON, there was a statistically significant increase to the level of importance nursing students assigned to knowing their patient's gender identity ($H(2) = 6.728$, $p = .04$). Baseline responses for said item were gender sensitive and increased in gender sensitivity between T1 and T3 ($U = 831.00$, $p = .02$), as well as between T2 and T3 ($U = 417.00$, $p = .03$); Table 3. Similarly, there was a statistically significant increase in participants' confidence in their skills to provide respectful and effective care to TGD patients ($H(2) = 8.17$, $p = .02$). Gender sensitivity to this survey question also increased between T1 and T3 ($U = 748.50$, $p = .01$); Table 3. Study participants also reported greater awareness of resources for information and referral specific to TGD patients ($H(2) = 7.03$, $p = .03$). Although there was a statistically significant increase in scores for this item from baseline, by the end of the study, scores remained below the threshold for being considered gender sensitive (U = 1244.50, $p = .02$); Table 3. No other changes were significant.

3.4. Themes for free-text responses

Across the three time points, 25 participants submitted free text responses ($n = 16$ at T1, $n = 8$ at T2, and $n = 1$ at T3). Among these 25 responses, 12 requested additional content on TGD health. Three of the 12 respondents made requests for more case studies or clinical training to improve skills related to TGD health. For example, one student explained, "[I] feel comfortable caring for a transgender patient in terms of respectful, nonjudgmental behavior, but I am lacking clinical training in special trans health issues." In addition, one response suggested that TGD health content be more streamlined throughout the nursing program, while another requested more specific information on medical care and insurance coverage.

Seven of the 25 responses expressed appreciation for the TGD health content. For example, one student noted, “Thank you so much for doing this project! We need more information in school about how to take care of transgender patients!” Four of the 25 responses indicated that TGD health content should be a mandatory component of the nursing curriculum: “The online module needs to be a real in class experience. Let’s make it a real learning experience with the same value as any other in class lecture.” This statement highlights how the delivery of content can change the students’ perception of the importance of specific content.

There were three additional codes that were endorsed in only one response. The first response cited a faculty knowledge deficit and the second and third made recommendations regarding respect and word use. Regarding word use, one participant highlighted the need for more inclusive and gender-affirming language use. Specifically, the participants stated: “I would not use the word ‘prefer’ when asking a question about pronoun[s]. I would had said, which pronoun would you like for me to use. I stay away from the word ‘prefer’.” The more appropriate term would be to ask one’s pronouns verses their ‘preferred’ pronouns, as a modifier implies that the pronouns are not authentic or are optional.

4. Discussion

This study evaluated the change in TGD-related knowledge and attitudes among pre-licensure BSN students who participated in the TCIP at JHSON. On average, students had gender sensitive responses to all but one survey item across the three surveys time points. At all three time points, students’ mean response score was not gender sensitive for an item assessing their awareness of additional resources to which they could refer TGD patients who had needs that the students were unable to meet. Although there was a statistically significant change in students’ awareness of such resources after exposure to the TCIP, persistently low awareness highlights the need for continued support for students in this area. Similarly, statistically significant changes in students’ confidence in their skills to provide respectful and effective care to TGD patients were small, suggesting that additional skill building support is necessary. This finding aligns with research indicating that, among undergraduate nursing students, exposure to TGD health content in an academic setting is predictive of confidence in providing affirming care to TGD patients (Brown et al., 2017).

Of note, we observed statistically significant changes in students’ belief in the importance of knowing about their patient’s gender identity decreased between T1 and T3, as well as between T2 and T3. The TGD health curriculum content to which students were exposed emphasized that a gender-sensitive or gender-informed approach should be utilized for all patients, not only patients who reported a TGD gender identity. Further, it emphasized the important of ensuring that discussions with patients about their gender identity and gender affirmation respected patients’ preferences and boundaries and were relevant to patients’ presenting concern. The observed decrease in students’ belief that it is important to know about their patient’s gender identity might reflect this aspect of the TGD health curriculum – that it is not necessary to know detailed information about an individual’s gender identity in order to provide respectful and effective care. Alternatively, these observed decreases could reflect potential changes to the sample composition of students who responded to the surveys across the three time points.

Given that the TCIP intervention had a small positive effect on students' knowledge and attitudes of TGD health, future interventions could build on this model by increasing and diversifying exposure to TGD health content. The three major themes of students' qualitative responses (i.e., requests for more information on TGD health, appreciation for TGD health content, and suggestions to make TGD health content mandatory) provide guidance on how knowledge and skills might be further increased. For example, students could be exposed to TGD health content more frequently, for a longer portion of their academic program, and in more diverse settings (e.g., during clinical rotations or simulations) (Stockmann and Diaz, 2017). These future directions align with findings from a recent systematic review of interventions aimed to reduce bias related to sexual orientation and gender identity among nursing, dental, and medical students (Morris et al., 2019). Specifically, authors report that experiential learning and intergroup contact were successful in increasing comfort and tolerance (Morris et al., 2019). Additionally, future surveys evaluating students' knowledge and attitudes should include items that separately address (1) students' belief in the importance of providing respectful, informed, and effective care to TGD patients, (2) awareness of respecting patient-established boundaries and preferences, and (3) skills related to thoughtfully and safely assessing gender identity and related concepts as they relate to a patient's presenting concern.

Due to varying levels of social inclusion and acceptance of TGD lives in the US and internationally, it is important to consider the social and political context when discussing TGD rights and health. In many countries, disclosing LGB and TGD identities may be punishable by incarceration (72 countries worldwide), forced sexual reassignment (Iran), or death (imposed: Iran, Northern Nigeria, Saudi Arabia, Somalia and Yemen; legally possible: Afghanistan, Brunei, Mauritania, Pakistan, Qatar and United Arab Emirates) (Bucar and Shirazi, 2012; Human Dignity Trust, 2020). The existence or non-existence of legislature protecting against gender-based discrimination, victimization, and hate crimes may greatly impact nursing students and faculty's knowledge and attitudes regarding TGD people and TGD health. However, the effect of inclusive legislature on the knowledge and attitudes of nursing students and faculty has been understudied. It is also unclear how such laws influence the inclusion of TGD health in nursing licensure exams and nursing education.

Maryland, where this study took place, is one of only 21 states (and Washington, DC) in the US that has protective legislature prohibiting health insurance exclusions for TGD people and one of 19 states (and Washington, DC) that prohibits hate crimes based on sexual orientation and gender identity (Warbelow and Courtnay Avant, 2019) – making Maryland a moderately TGD inclusive state (Movement Advancement Project, 2020). TGD people who live in US states that lack gender-based non-discrimination or hate crime legislation have reported increased odds of mood disorders and self-directed violence (Blosnich et al., 2016), which may perpetuate delays in treatment-seeking and decreased access to healthcare (Reisner et al., 2015). To better understand the health effects noted above and elucidate the impact of protective legislature on healthcare provision, future research should investigate the effect of social and political context on nursing student's and faculty's knowledge, attitudes, and practices in international and national settings.

There were several limitations in the initiative, due to internal and external factors. The researchers were unable to follow each student's individual progress between time points due to survey design. Additionally, some students may have opted out of non-required content or inadvertently missed required content. There was also a generally low response rate, so repeating the study with a focus on increasing retention may be instructive. Importantly, observed changes in students' knowledge and attitudes could reflect differences in the sample of survey respondents, the effect of other interventions, or events related to TGD health, rather than true changes resulting from TGD health curriculum integration. Because demographic characteristics other than survey respondent age were not collected, we lacked the ability to assess changes in the group of students who responded to each of the three surveys. Given these limitations, results should be interpreted as exploratory. Finally, because the free-text responses used in the qualitative analysis were submitted in response to an open ended question (rather than a question intended to evaluate a specific aim of TGD health curriculum integration) these results should also be interpreted with caution.

The strengths of this educational initiative included individual student/investigator support to assist faculty in the co-creation and integration of TGD content in their courses. Additionally, this study adapted and used established measures for data collection (Kelley et al., 2008). The study design allowed for data to be collected efficiently via online links and yielded enough response to steer future research. The manageable scope of content integration for TCIP has also primed the host institution for a more extensive initiative to include LGBT content in the nursing student curriculum (Sherman et al., n.d.).

5. Conclusion

Preparing nurses to provide TGD-sensitive care is critical and the integration of TGD-related health content into pre-licensure nursing curricula provides an important foundation for that preparation. The JHSON TCIP highlights opportunities for improving nursing student knowledge and attitudes about the care of TGD patients through curricular integration, as well as the complexities of curricular change. While further research is needed to elucidate the best educational practices, students likely need didactic classroom education that is coupled with opportunities for building skills and clinical self-confidence through case-based learning and simulations that include the care of TGD patients. Education and training should also include presentation of resources for nurses to gain more knowledge about TGD populations as well as healthcare and other community-based resources to which they can refer their TGD patients.

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Table 1

Demographic characteristics of students enrolled in the accelerated BSN program between September 2014 and December 2015 ($N = 160$).

	n	%
Gender identity		
Female	144	90
Race		
Black or African American	5	3.1
American Indian or Alaska Native, Indigenous	5	3.1
Asian	22	13.8
Other race	2	1.3
More than one race	6	3.8
White	120	75
Ethnicity		
Not latinx	146	91.3
Latinx	14	8.8

Table 2

Age of respondents.

	T1 (*n* = 80)	T2 (*n* = 41)	T3 (*n* = 28)
Age	***n* (%)**	***n* (%)**	***n* (%)**
21–25	43 (53.6)	23 (56.1)	10 (35.7)
26–30	24 (30.0)	10 (24.4)	13 (46.4)
31–35	7 (8.8)	3 (7.3)	4 (14.3)
36+	2 (2.5)	0 (0.0)	0 (0.0)
Missing	4 (5.0)	5 (12.2)	1 (3.6)

Table 3

Change in transgender and gender diverse knowledge and attitudes.

Question		Kruskal-Wallis H			Mann-Whitney U			
		M (*SD*)	*H* (2)	*p*		*U*	Z Score	*p*
1. As a nurse, I feel it is important for me to know about my patient's gender identity.	T1	4.61 (0.70)	6.73	0.04	T1 vs T2	1621.00	−0.13	0.90
	T2	4.66 (0.57)			T1 vs T3	831.00	−2.39	0.02
	T3	4.32 (0.72)			T2 vs T3	417.00	−2.22	0.03
2. I would feel comfortable interacting with a transgender or gender non-conforming[+] patient during clinical.	T1	4.31 (0.85)	0.06	0.97				
	T2	4.27 (0.90)						
	T3	4.41 (0.57)						
3. [*]I would prefer not to care for patients who are transgender.	T1	1.52 (0.71)	0.63	0.74				
	T2	1.56 (0.74)						
	T3	1.46 (0.79)						
4. [*]Knowing someone is transgender would negatively alter the way I perceive that person.	T1	1.50 (0.71)	0.10	0.95				
	T2	1.51 (0.71)						
	T3	1.50 (0.79)						
5. I feel comfortable around people whose gender presentation is ambiguous.	T1	3.84 (0.89)	1.75	0.42				
	T2	3.63 (1.11)						
	T3	3.96 (1.00)						
6. [*]When I first meet a patient or colleague, I assume they are cisgender.	T1	3.94 (0.89)	0.60	0.74				
	T2	3.98 (0.96)						
	T3	3.83 (1.00)						
7. I have the skills to provide respectful care to meet the needs of a transgender or gender non-conforming[+] patient during clinical rotations.	T1	3.29 (1.11)	8.17	0.02	T1 vs T2	1415.50	−1.17	0.24
	T2	3.54 (1.14)			T1 vs T3	748.50	−2.87	0.00
	T3	3.97 (0.87)			T2 vs T3	473.50	−1.53	0.13
8. I am aware of resources where I can get more information or places, I can refer a transgender or gender non-conforming[+] patient who has needs I am not able to meet.	T1	2.34 (1.07)	7.03	0.03	T1 vs T2	1244.50	−2.40	0.02
	T2	2.85 (1.20)			T1 vs T3	903.00	−1.90	0.06
	T3	2.79 (1.24)			T2 vs T3	584.00	−0.13	0.90

Note. Exact Sig. (2-tailed); T1 = pre-test; T2 = post-test 1; T3 = post-test 2;

* = scores below 3 are considered TGD-sensitive, while all others are considered TGD-sensitive with scores above 3;

+ = also known as gender diverse.