

Effectiveness of Transgender Care Content in a Nurse Practitioner Program

Kem B. Louie^{*}, PhD., APN, CNE, FAAN¹, Persphone Vargas, DNP, APN-BC¹, Pamela Fonju, DNP, APN-BC¹, Hetal Desai, DNP, APN-BC¹ and Diane Lubinski, MSN, APN-BC¹

Professor, Director of the Graduate Program, William Paterson University, Department of Nursing, Wayne, NJ 07470

^{*}Corresponding author

Kem B Louie, Professor, Director of the Graduate Program, William Paterson University, Department of Nursing, Wayne, NJ 07470; E-Mail: louiek@wpunj.edu

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Abstract

Background: Research has shown that healthcare provider's knowledge and attitudes toward transgender individuals impact transgender health. Most providers are not trained to provide care for LGBT individuals. This study examined the effectiveness of an educational intervention designed to improve the medical attitudes of nurse practitioner students regarding transgender patient care.

Method: The medical attitudes were evaluated before and after the educational intervention using the Assessing Medical Attitudes Toward Transgender Care Survey. Medical attitudes were defined as levels of comfort, confidence or competence.

Results: The results showed an overall increase in the students' level of comfort and competence toward transgender care after the education activity. Areas which met statistical significance ($p < .05$) were educational hours, preparedness, personal comfort in prescribing hormone therapy and personal comfort in referring to gender reassignment surgery.

Conclusions: Findings support that education on transgender health care increases levels of comfort and competence among nurse practitioner students.

Keywords: Transgender Care, Transgender Care Content, Nurse Practitioner Programs, Attitudes toward Transgender Care

Introduction

Transgender is a term used to refer to a diverse group of individuals whose gender identity or behavior differs from what they were assigned at birth [1]. Transgender is a broad term that encompasses different gender-variant identities and expressions including transsexuals [2]. The transgender population vary widely in age, race and ethnicity, geographic location, social background, religiosity, and other socioeconomic and demographic characteristics [2]. Approximately 1.4 million individuals or 0.6% of adults in the United States identify themselves as transgender [3]. However, since gender identity or sexual orientation is not included in most national or state surveys, it is difficult to estimate the number of transgender individuals and their health needs [4].

Health disparities have been identified in the transgender population [3, 4]. Transgender individuals have a high prevalence of HIV/STDs, victimization, mental health issues and suicide [4]. Middle-aged and older transgender adults have significantly higher rates of poor general physical health, disability, depression, and perceived stress than do their lesbian, gay, and bisexual counterparts [5].

Transgender individuals are also less likely to have health insurance than heterosexual or lesbian, gay and bisexual individuals [4] are which further presents a barrier to obtaining quality health care. Additionally, transgender individuals may alter their physical appearance through hormonal therapy or surgery and have more unique healthcare needs [2].

One of the goals of Healthy People 2020 is to improve the health, safety, and well-being of lesbian, gay, bisexual, and transgender (LGBT) individuals [4]. The IOM (2011) also recommends improving access to healthcare by improving healthcare provider's knowledge and attitude towards LGBT patients.

The healthcare provider's knowledge and attitudes toward transgender individual's impact transgender health [2]. Most providers are not trained or educated to provide care for LGBT individuals. Many healthcare providers are not comfortable when dealing with LGBT patients and they do not have the knowledge to address their healthcare issues [2]. Shukla, Dundas, Asp, Saltzman and Duggan (2015) examined the education and attitude of medical, nurse practitioner (NP) and physician assistant students regarding transgender care [6]. The study reported that 74.1% did not feel competent in providing healthcare to transgender patients. Regarding

professional comfort levels, 71% felt comfortable providing medical care to transgender patients, however, NP and PA students were less comfortable than medical students with referring patients for gender reassignment surgery. The research reports that a majority of the students received less than two hours of transgender healthcare education.

Two recent studies examined undergraduate nursing student's attitudes and knowledge of LGBT issues before and after an educational intervention. Strong and Folse (2015) reported an improvement in knowledge and attitudes toward LGBT individuals after a 45-minute education intervention [7]. Carabez et al. (2015) reported that 85% of the nursing students surveyed that their nursing education had not prepared them to take care of LGBT patients [8]. After a one-hour educational intervention, the authors found there was an improvement in the nursing students' knowledge.

While there are very few studies investigating the efficacy of transgender education among registered nurse's attitudes and knowledge toward transgender care, there were no studies found on nurse practitioner student. Levesque (2013) conducted a survey on the NP's knowledge, attitudes and self-efficacy toward transgender persons using the Attitude Towards Transgender Survey and Health Care Provider Survey [9]. The results indicate that the NP's have an overall acceptance towards transgender patients, however, they also report low self-efficacy or confidence in providing transgender care and reported not receiving transgender content in their NP education.

The purpose of this study was to determine the competence and comfort levels of nurse practitioner students towards transgender patients and to evaluate the effectiveness of adding transgender content. To the authors' knowledge, there are no published studies on educational intervention on transgender patients among nurse practitioner students.

Research Questions

The following questions guided this study:

- What are the competence levels of nurse practitioner students towards transgender patients?
- What are the comfort levels of nurse practitioner students toward transgender patients?
- How effective is the implementation of a transgender educational program on NP student's competence and comfort levels towards transgender patients?

Methods

Participants

A convenience sample of 68 nurse practitioner students enrolled in a MSN program at a university in the northeastern United States participated. Nurse practitioner students in two courses were selected over two semesters. The first course was Advanced Health Assessment which focused on communication and history taking. The second course, Advanced Nursing Practice, focused on the diagnosis and management of adult medical/health problems. All students who participated in the educational intervention and completed the surveys were included in the study.

Instrument

Assessing Medial Attitudes Toward Transgender Care. The Assessing Medical Attitude Survey was used to evaluate the competence and comfort levels in transgender health care among NP students. The survey instrument was developed to examine attitudes of medical, NP and PA students towards transgender care [6]. The tool is made up of demographic questions, and 13 items regarding experiences with transgender patients, educational hours on transgender health care, assessment of competence on transgender health issues and questions on competence or comfort in providing various aspects of transgender care e.g. safe sex, hormone therapy and gender reassignment surgery. The responses to each item was four point Likert type scale from *very comfortable* (4), *somewhat comfortable* (3), and *somewhat uncomfortable* (2) to *very uncomfortable* (1). This study reported a Cronbach alpha of .754 for internal consistency.

Procedure

Following the university's institutional review board approval, five professors collaborated to develop and implement transgender content in the Advanced Health Assessment and Advanced Nursing Practice courses. The students were informed during the fall 2016 and spring 2017 semesters that they would be participating in an educational evaluation project on transgender health care. Prior to the educational intervention, the students voluntarily completed the Assessing Medial Attitudes Toward Transgender Care survey.

The research team developed a relevant and appropriate educational program on transgender health care. The educational content included assigned readings and videos prior to class with a PowerPoint presentation. The educational content was delivered through a 60-minute classroom discussion that focused on definitions, best practices in conducting health assessments, health disparities, cultural competence and management of transgender-specific healthcare problems. The primary objectives of the transgender educational content were to 1) discuss best practices for obtaining a comprehensive health history and in performing an appropriate physical exam in transgender patients and 2) identify strategies to effectively address healthcare issues in primary care among transgender patients. A posttest was administered two weeks afterwards. All surveys were completed anonymously and no academic or monetary incentives were provided to the students.

Results

Demographics

Data was analyzed using IBM SPSS Statistics for Windows, version 23 (IBM corps) [10]. Descriptive statistics were used to describe the characteristics of the sample.

The characteristics of the respondents (n=68) can be found in Table 1. The student's ages ranged from 24 to 57 years with a mean age of the students of 35 years; a majority were family nurse practitioner students with female (88.2%) and adult gerontology nurse practitioner students (21.8%). There were 11.8% male and 89.2 % female students. A large majority of the students reported they did not personally know transgender patients (77.9%, n=53), while 52.9% (n=36) have not provided care for a transgender patient. Forty-seven percent of the students reported they had cared for transgender patients, a majority (29.4%) of which only had 1-2 transgender patients.

Table 1: Characteristics of the respondents (N= 68)

Item	Frequency	Percentage
Age		
Range 24- 57 years		
Mean- 35 years		
Major		
AGNP	33	48.5
FNP	35	51.5
Gender		
Male	8	11.8
Female	60	88.2
Personally know transgender patients?		
No	53	77.9
Yes	15	22.1
Provided care to transgender patients?		
No	36	52.9
Yes	32	47.1
How many transgender patients have you cared for?		
0	35	51.5
1-2	20	29.4
3-5	8	11.8
>5	5	7.4

Further descriptive data with frequencies revealed that 42% of the students did not feel competent in dealing with transgender sexual health concerns (Q9). Sixty-eight percent (68%) of the students did not feel competent in dealing with transgender specific medical concerns (Q10). Seventy-six percent (76%) of the students did not feel comfortable that their education prepared them to provide care to transgender patients (Q13). The mean number of hours received on transgender sexual health education was 2.11 hours and in transgender health care education, 1.52 hours (Q11 & 12).

Pre and Post Tests

The mean results of all questions, except one, increased from the pre-test to post-test, indicating improvement in levels of competence and comfort (Table 2). The only items that did not show an increase mean results in the pre and post-test is the question on personal comfort level in being known as a provider of care to transgender patients (Q15).

Table 2: Mean Pretest-Posttest Scores of Participants (n=68) on the Medical Attitude Towards Transgender Care

Questions	Mean Pretest	SD	Mean Posttest	SD
Q9: "How would you rate your competence in dealing with a transgender patient's sexual health concerns?"	2.57	.82	2.72	.67
Q10: "How would you rate your competence in dealing with a transgender patients' specific medical concerns?"	1.52	2.58	3.01	3.02
Q11. "How many hours of education would you estimate you've had regarding transgender health care?"	2.11	.84	2.35	.78
Q12. "How many hours of education would you estimate you've had regarding transgender sexual health?"	1.13	1.95	1.80	1.62
Q13. "How well do you feel your medical education has prepared you to provide care for transgender patients?"	1.95	.76	2.46	.75

Q14. "Your professional comfort level in providing care to a transgender patient in a clinical setting?"	2.75	.80	2.86	.66
Q15. "Your personal comfort level in being known as a provider of care to transgender patients?"	3.13	1.18	3.04	.76
Q16. "Your personal comfort level with counseling a transgender patient on safer sex practices?"	2.60	1.052	2.75	.85
Q17. "Your personal comfort level with providing mental health care to a transgender patient?"	2.38	.91	2.60	.74
Q18. "Your personal comfort level with prescribing hormone therapy to achieve gender transition for a transgender patient?"	2.05	1.02	2.35	.86
Q19. "Your personal comfort level in referring a transgender patient for gender reassignment surgery?"	2.23	.979	2.58	.81
Q20. "Your personal comfort level with providing prostate exams for male to female (MTF) transgender patients?"	2.22	.911	2.38	.81
Q21. "Your personal comfort level with providing pap smears to female to male (FTM) transgender patients?"	2.27	.878	2.40	.825

A Mann-Whitney, a non-parametric test, was used to analyze the differences between the pre- and post-test scores since the sample distribution did not fit a normal curve. The probability level of $p < .05$ was used to determine statistical significance.

Five items (Q11, Q12, Q13, Q18 and Q19) were found statistically significant between the pre-test and post-test (Table 3). The educational hours regarding transgender health care increased from 2.11 to 2.35 ($p < .000$). The educational hours on transgender sexual health increased from 1.13 to 1.80 ($p < .000$). Overall, the students were more comfortable that their education had prepared them to provide care for transgender patients ($p < .000$) after the educational program. There was a statistically significant increase in the personal comfort level in the areas of prescribing hormone therapy to achieve gender transition for a transgender patient ($p < .035$) and in referring a transgender patient for gender reassignment surgery ($p < .016$).

Table 3: Mann-Whitney U: Results of Medical Attitudes Toward Transgender Care Survey

Question	U	Sign (2 tailed)
Q11. "How many hours of education would you estimate you've had regarding transgender health care?"	1152.50	.000*
Q12. "How many hours of education would you estimate you've had regarding transgender sexual health?"	1305.50	.000*
Q13. "How well do you feel your medical education has prepared you to provide care for transgender patients?"	1439.00	.000*
Q18. "Your personal comfort level with prescribing hormone therapy to achieve gender transition for a transgender patient?"	1762.00	.035*
Q19. "Your personal comfort level in referring a transgender patient for gender reassignment surgery?"	105.00	.016*

Significant Individual Items* $P < .05$

Discussion

This study examined the baseline competence of NP students and investigated the efficacy of an educational intervention on the competence and confidence towards the care of transgender patients. As the results shown in the pre-tests, a majority of the NP students did not feel competent or comfortable in dealing with transgender sexual health and medical health concerns. The NP students felt

that their education did not adequately prepare them to provide care to transgender patients. Consistent with other studies, NPs do not feel competent in providing healthcare to transgender patients [6, 9]. Shukla (2015) found slightly higher mean number of hours received on transgender health education in their study [6]. There are no other studies evaluating transgender education among NP students. Among undergraduate nursing students, the median time for LGBT content in the curriculum is 2.12 hours [11].

In the results of the post- tests, there was an improvement in the competence and comfort levels after the educational intervention. In addition to the statistically significant findings, there were increases in educational time received on transgender health care, and improvement in all items of the Medical Attitudes Towards Transgender Care Survey. Statistically significant findings showed that the increased comfort levels prepared NP students to provide care for transgender patients, in the areas of prescribing hormone therapy to achieve gender transition and in referring a transgender patient for gender reassignment surgery. Shukla et al. (2015) had reported that compared to medical students, NPs and PA were less comfortable with referrals for gender reassignment [6]. Consistently, studies conducted on undergraduate nursing students have also found improvement in knowledge and attitude after the addition of LGBT content in the curriculum [7, 8]. The educational intervention used in this study has demonstrated effectiveness in improving the competence and comfort levels of NP students in providing health care for transgender patients.

The study has a few limitations. The study had a small sample size. The convenience sample has limited generalizability due to it was conducted only at one school of nursing.

Conclusion

There is a lack of content and time spent on transgender care in the advanced practice-nursing curriculum [12]. The results of this study indicate that including transgender education to the NP curriculum has a beneficial impact to the knowledge and attitudes of NP students towards transgender quality health care. There is a need for healthcare providers to be knowledgeable and have cultural competence to provide appropriate care for transgender patients. This can be achieved by providing future NPs with adequate transgender knowledge and education, which can contribute in decreasing transgender health disparities in the future.

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