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Teaching Those who Care how to Care for a Person with Substance Use Disorder

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Abstract

Background: Substance use disorder (SUD) is on the rise globally and nurses are not prepared to care for this population.

Purpose: The purpose was to determine if a 4-hour anti-stigma intervention improved prelicensure student nurse attitudes and perceived stigma toward people with SUD.

Methods: This was a nonrandomized quasi-experimental survey study. Participants completed the 20-item Drug and Drug Problems Perception Questionnaire (DDPPQ), 8-item Perceived Stigma of Substance Abuse Scale (PSAS), and 13-item Marlowe-Crowne Social Desirability Scale at baseline, and repeated the DDPPQ and PSAS post-intervention. Paired t tests were used to determine the mean differences in the total DDPPQ and total PSAS scores.

Results: Following the anti-stigma intervention, there was a significant improvement in overall therapeutic attitudes ($t = 8.4$, $df = 108$, $p < .001$) and perceived stigma ($t = -2.5$, $df = 108$, $p = .01$) in undergraduate nursing students ($n = 126$).

Conclusions: Incorporating anti-stigma educational approaches may lead to more involvement and compassionate care for people with SUD.

Keywords

Substance use disorders; stigma; education; nursing; teaching methods

An estimated 275 million (5.6%) people worldwide used an illicit substance, and 31 million had a substance use disorder (SUD) that required treatment in 2016.¹ People with a SUD typically underuse health care services and often only seek assistance for episodic care (eg, abscesses, endocarditis, and overdose) to avoid unpleasant encounters with health care providers (HCPs).² One of the goals of the National Institute on Drug Abuse³ strategic plan is to decrease the stigma and discrimination of people with SUD.

Nurses care for people with SUD throughout the lifespan and across the addiction trajectory – from the early onset of drug use to chronic disease management and recovery support. Nurses, including students, have been known to stigmatize people with SUD and report feeling poorly trained to work with this population.^{4–6} Stigma has a negative impact on the person with SUD's emotional and overall well-being including a negative impact on sleep, anxiety, depression, and self-esteem.⁷

There is limited study of nursing students' attitudes toward people with SUD. Nursing students were shown to have personal and professional value conflicts when caring for people with SUD.⁷ In one study, nursing students had the least tolerant attitude toward people with SUD compared to students in psychology, social work, midwifery, and health and social care.⁴

According to the WHO² good practice guidelines, HCPs should provide inclusive, nonjudgmental care along with education and skills to help an individual decrease their risk of HIV, hepatitis C virus, and sexually transmitted diseases and to engage them in care. Harm reduction is an effective public health approach aimed at improving the relationship between people with SUD and their HCPs while reducing the harm associated with drug use when abstinence is not an option.² Harm reduction education can improve the lives of people with SUD by presenting practical strategies that are effective, feasible, and do not condemn or condone drug use, rather meets the person where they are.^{2,8}

Simply providing information to a HCP does not change stigmatizing behaviors.⁷ Programs that include a trained speaker, personal testimony from a person with a lived experience,⁹ a recovery emphasis, multiple forms of social contact, myth busting, therapeutic communication techniques, and an enthusiastic facilitator are found to perform significantly better than programs that include only some of these approaches.¹⁰ Similarly, other effective strategies noted for addressing social stigma toward people with SUD include communicating positive stories of people with SUD, motivational interviewing, increased interaction with people with SUD, and education programs targeting health care professionals.¹¹

The purpose of this study was to determine whether a set of targeted anti-stigma educational interventions improved undergraduate nursing student therapeutic attitudes and perceived stigma toward working with people with a SUD. The results reported here are from the initial 4-hour intervention conducted in the first semester of a planned 2-year longitudinal study. We aimed to determine if a student's overall therapeutic attitudes and/or perceived stigma towards people with SUD improve from baseline to post 4-hour educational intervention. We hypothesized that there would be an improvement in therapeutic attitudes and a decrease in stigma following a 4-hour educational intervention.

The theory of therapeutic commitment¹² served as the framework for this study. Therapeutic commitment is influenced by the practitioner's feelings of role adequacy, role legitimacy, and role support.¹² Once the individual has the attitude, knowledge, and beliefs to be prepared in these 3 roles, the outcome is a therapeutic commitment. A positive first encounter between the nurse and client is an essential aspect of the therapeutic interpersonal

relationship. This intervention was aimed at increasing the student's feelings and skills of role adequacy, role legitimacy, and role support while caring for people with a SUD.

Methods

Study Design

We conducted a nonrandomized quasi-experimental survey study to determine if a targeted 4-hour anti-stigma intervention improved therapeutic attitudes and stigma from baseline to post intervention. The study was approved by the human subjects institutional review board of the university. All subjects received informed consent through an electronic document provided prior to the start of the study and again prior to participation in the surveys that were administered during week 2 of the semester.

Participants and Sampling

Junior nursing students (n=160) enrolled in a bachelor of science in nursing program during the fall 2018 were invited to participate. The faculty teaching the courses approved the disseminated content and provided credit for clinical hours for the training. All students received the training but only those that participated in the survey are included in the analysis. Due to the homogeneity of the 2 cohorts, demographic surveys were not linked to the student to protect their anonymity. Demographic information was collected prior to the baseline survey during week 2 of the semester.

Anti-Stigma Intervention

During the sixth week of the semester, both cohorts received a 4-hour educational training that consisted of presentations from experts and people with a lived experience as well as electronic resources to be used throughout their program. Baseline assessments were collected prior to the start of the intervention. Based on outcomes of other stigma studies,^{10,11} the anti-stigma intervention was designed to include the suggested strategies of trained speakers, a recovery focus approach, myth busting, and enthusiastic presenters. The addiction trained physician, an engaging and well known presenter, provided education about the physiology of addiction, including the neurotransmitter pathway and dopamine imbalance seen in addiction research, and shared real life examples from her practice that focused on ways that the nurse can be an important component of an individual's addiction trajectory. Next, the primary author, an expert in SUD, provided an interactive exchange on the importance of person first and recovery focused language. Quotes were shared from previous research about the person with SUD and their interactions with a nurse during a time they received care. The quotes illustrated both positive and negative examples of received nursing care and the impact this had on the individual. This particular teaching strategy has been shown to have positive outcomes from the primary author's experience educating nursing students about the stigma experienced by people with a SUD.¹³

Students were introduced to harm reduction and the nurse's role in education and referral for treatment. For example, students were taught how to introduce discussion of safe injecting practices with a person who injects drugs while obtaining a blood pressure. A role play by the presenter demonstrated the nursing student inquiring if the individual would share how

they kept themselves safe during their injection practices. This led to an example of how the student nurse could provide education about not sharing injection materials, cleaning the skin, use of a sterile syringe to decrease injury and the risk of blood borne diseases. A role play of this scenario allowed the students to visualize how quickly this information could be disseminated. For the intranasal naloxone training, the primary author provided the information, and students were able to manipulate demonstration atomizers and were invited to stay after class to participate in additional hands-on practice. Additional harm reduction activities were provided verbally to ensure students educated the person with SUD to not use drugs alone and to always carry intranasal naloxone.

Next followed a segment on personal testimony. The first presenter was a mother that had lost her son to an opioid overdose 6 months prior, and the second presenter was a young male in early recovery. These presenters shared positive and negative examples of the care that was received and the impact that this had on them and their family. Students were provided electronic community resources for SUD care to be used throughout their time at the university. The content of the resources were organized in the following categories: harm reduction, grief and bereavement resources, area resources, and care of specific populations that students would encounter throughout their nursing program. All students had clinical placements in geographic areas that had high rates of drug use and opioid overdose deaths.

Communication techniques were addressed by role playing and students were referred to an electronic resource on how to have a conversation with a person who uses drugs.¹⁴ Students were trained in SBIRT and motivational interviewing 1 week after this training occurred.

Outcome Measures

All measures were collected via a self-report electronic survey via Research Electronic Data Capture (REDCap).¹⁵ A demographic survey was used to collect student age, gender, partner status, and ethnicity. Students also were asked if they had a friend or relative with SUD or any previous experience working with people with a SUD.

The Drug and Drug Problems Questionnaire (DDPPQ) is a 20-item multidimensional instrument previously validated with experienced providers^{16,17} and undergraduate nursing students.¹⁸ The DDPPQ measures health care providers' attitudes toward working with patients who use drugs.¹⁶ The instrument has acceptable test-retest (intraclass correlation was .82) and respectable internal consistency reliability with Cronbach's α ranging from .87 to .88.^{16, 18} Respondents rate their agreement about working with people who use licit or illicit drugs on a 7-point Likert scale from 1 (strongly agree) to 7 (strongly disagree).¹⁶ Scores range from 20 to 140 with higher scores indicating more negative views, whereas lower scores indicate more positive views.^{16,19} Cronbach's α was .79 for the total scale score and ranged from .79 - .94 for all subscales in our sample.

The Perceived Stigma of Substance Abuse Scale (PSAS), an 8-item measure of perceived stigma toward people who use substances,¹⁹ was validated with people using substances and adapted from a previous scale measuring perceived stigma toward people with a serious mental illness. The PSAS has previously demonstrated good internal consistency reliability (Cronbach's α = .73).¹⁹ Respondents rate their agreement on a 4-point Likert scale from 1

(strongly disagree) to 4 (strongly agree) to determine their perception of people using substances.¹⁹ Total scale scores range from 8 to 32 higher scores indicating greater perceived stigma.¹⁹ Cronbach's α was .82 in our sample.

The Marlowe-Crowne Social Desirability Scale (MCS)²⁰ is a 13-item short form version of the original 33-item scale measuring a respondent's social desirability bias using a true/false format. Both therapeutic attitudes and perceived stigma are subject to social desirability bias.

Study Procedures

At the start of the study, students were enrolled in a fundamentals course and began their first clinical rotation in a health care agency during week 8 of the semester. In week 2 of the semester, the primary author visited both groups to explain the study and invite students to participate in the study by completing the baseline surveys (DDPPQ, PSAS and MCS) and demographic survey. Students provided a unique identification code using for the survey. A total of 126 (78.8% response rate) students completed the baseline stigma survey and 109 completed both the baseline and post 4-hour intervention survey (86.5% complete data).

All students received the educational intervention whether they participated in the study or not. At the end of the intervention, students were again invited to participate in completing the survey (DDPPQ and PSAS). Students wishing to not participate were informed that their decision to not participate had no bearing on their standing in the class. Students were allowed to complete the post survey at home up to 24 hours after the intervention and then a raffle was drawn from those that participated.

Data Analysis

Prior to analysis, we screened for missing data, out-of-range values, and distributions of continuous variables. Cronbach's alphas were computed for all measures for the full sample. Descriptive statistics were used to describe the sample and the variables of interest. Data were collected via REDCapTM,¹⁵ and analyzed using the Statistical Package for the Social Sciences.²¹ The paired t test was used to determine the mean differences in therapeutic attitudes in all 5 dimensions of the DDPPQ, the total DDPPQ score, and the total perceived stigma score. A bivariate correlation was conducted between social desirability bias and therapeutic attitudes and perceived stigma.

Results

Undergraduate nursing students (n=126) in both a traditional (40.3%) and accelerated track (59.7%) participated in the study. Students reported a mean age of 25.2 ± 6.7 years, and a majority of students identified as white (95%) and female (85%). A majority had never been married (80.2%), 10.3% were married, 2.4% were separated/divorced, 0.8% widowed, and 7.9% were living with a partner. More than 50% of the sample had a friend or relative with a SUD, and 53% had experience working with a person with SUD. Social Desirability scores ranged from 0 – 5 ($M = 3.1 \pm 1.3$). Those reporting higher social desirability also reported higher role legitimacy ($r = -0.21$, $p = .03$), indicating that social desirability accounted for some of the variance in this construct. The association between social desirability and the

total DDPPQ score, all other subscales of the DDPPQ, and perceived stigma scale was not significant ($p > .05$).

Effects of Intervention

The baseline overall therapeutic attitudes mean scores were 59.6 ± 17.9 , and perceived stigma mean scores were 23.0 ± 3.5 . Following the 4-hour educational intervention, there was a significant improvement in overall therapeutic attitudes ($t = 8.4$, $df = 108$, $p < .001$) (post mean = 44.8 ± 19.5) and perceived stigma ($t = -2.5$, $df = 108$, $p = .01$) (post mean = 22.2 ± 3.9). We also examined each subscale of the DDPPQ: there was an improvement in attitude in all 5 dimensions (4 were significant). Attitudes improved significantly for role adequacy ($t = -10.7$, $df = 108$, $p < .001$), role support ($t = -5.7$, $df = 108$, $p < .001$), job satisfaction ($t = -5.2$, $df = 108$, $p < .001$), and role legitimacy ($t = -3.2$, $df = 108$, $p = .002$). There was not a significant improvement in role-related self-esteem ($t = -1.4$, $df = 108$, $p = 0.15$).

Discussion

This study demonstrated a positive effect of a 4-hour anti-stigma educational intervention on nursing students' overall therapeutic attitudes and perceived stigma of caring for people with SUD. Mostly, therapeutic commitment towards people with SUD has been studied among mental health and nurse practitioners²² or medical surgical nurses²³ with limited focus on nursing students.²⁴ Our findings were consistent with other studies where presentations that included people with a lived experience improved the student's view on people with SUD by demonstrating a change toward a more humanistic perspective, an appreciation of the stories, and learning about treatment and recovery options.^{25, 26}

SBIRT has been used with nursing students to teach them to assess for risky substance use. Practicing SBIRT assessment and communication skills has been cited as an area of further need.²⁷ Our study provided skills to be used along with SBIRT in the student's clinical practice (eg, intranasal naloxone, language) and available resources to increase the student's confidence in role adequacy, role legitimacy, and role support while caring for people with a SUD.

Implications for Nurse Educators

Incorporating nonjudgmental and scientific information about SUD early in the nursing curriculum may improve the student's ability to care for this population. The nurse educator can deconstruct the stereotypes and stigma associated with SUD by incorporating effective educational strategies to be used with people with SUD. Providing education on the underlying neurobiology of addiction and the neurotransmitter pathways seen in people with eating, sex, gambling, or self-injury disorders may decrease the stigma associated with what was once thought to be a disease of choice. Incorporating therapeutic communication and the use of harm reduction strategies can assist the person actively using drugs toward an optimum state of health for their lifestyle.

A range of factors may hinder the development of role competency in nursing students and their ability to form therapeutic relationships with people with SUD. These factors may include lack of contact with people with SUD, an inability to view one's role as a legitimate part of everyday responsibilities,²⁴ or time constraints in the clinical setting. Time constraints may be due to limited opportunities for students to interact with people with SUD due to inadequate or short-term clinical placements. Nurse educators could address these constraints by providing opportunities for uninterrupted time through role play, simulation, or encouragement of the student to sit longer with patients whenever possible to hear their stories and concerns. Another strategy may include allowing students to reflect or debrief following their experience to identify strategies to improve therapeutic commitment in the future. The use of interprofessional education should be included to increase the student's confidence and engage in interprofessional practice, as collaborative care is a necessity for treatment of this population.

Limitations

Our sample was mostly female and Caucasian; however, this is similar to the nursing profession in the United States. Considering the homogeneity of the sample, we did not link demographics with the other survey responses to protect the anonymity of those who identified as male or another race. We are therefore unable to determine if there are any racial or gender variations in responses. Due to the location of the university being in the top 5 states for opioid deaths, the authors determined that it was important that all nursing students were prepared with the education; therefore, a control group was not formed to determine if the training was the reason for the change in attitude and perceived stigma.

Conclusion

Based on our results, it is possible to improve student nurse attitudes and perceived stigma with a 4-hour anti-stigma educational intervention. It is warranted to determine if these effects are sustainable beyond a semester or possible in other groups of HCPs. This intervention can serve to increase a student's awareness of the physiology of addiction, the impact of stigma and discrimination, the importance of screening tools to identify those at risk for SUD, and incorporation of harm reduction education for people who continue to use drugs. Some nurses may feel uncomfortable providing harm reduction education to a person using drugs, as this may be seen as contradictory to the nurse's role in health promotion. However, decreasing the harms related to the individual's life situation could improve the health of the person and also increase their willingness to seek health care when it is needed.

Research is emerging on the value of therapeutic nurse-patient relationships with people who use drugs, and any factors placing a constraint on these relationships are a concern. Nurse educators need to develop strategies to increase students' engagement, motivation, and work satisfaction to improve care for people with SUD. Incorporating anti-stigma educational approaches may lead to increasing the students' knowledge, beliefs, and attitudes and result in therapeutic commitment toward people with a SUD. More nurse involvement, compassionate connected care, and willingness to care for people with SUD can improve the quality of care received by this population.

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References

1. United Nations Office on Drugs and Crime. World Drug Report 2018 (United Nations publication, Sales No. E.18.XI.9). Published 2018 Retrieved from https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_1_EXSUM.pdf
2. World Health Organization. Consolidated Guidelines on HIV prevention, Diagnosis, Treatment and Care for Key Populations. Published 2014 Retrieved from http://apps.who.int/iris/bitstream/10665/128048/1/9789241507431_eng.pdf?ua=1&ua=1 on May 20, 2019
3. National Institute on Drug Abuse. National Institute on Drug Abuse 2016–2020 Strategic Plan. pp. 1–63. Published 2016 Retrieved from <https://www.drugabuse.gov/sites/default/files/2016-2020nidastrategicplan.pdf> on May 20, 2019
4. Harling MR. Comparisons between the attitudes of nursing students and other health and social care students toward illicit drug use: an attitudinal survey. *Nurse Educ Today*.2017;48:153–159. [PubMed: 27816009]
5. Morgan BD. Nursing attitudes toward patients with substance use disorders in pain. *Pain Manag Nurs*.2014;15(1):165–175. [PubMed: 24602434]
6. Pauly B, McCall J, Browne A, Parker J, Mosllison A. Toward cultural safety: nurse and patient perceptions of illicit substance use in a hospitalized setting. *Advan Nurs Sci*.2015;38(2):121–135.
7. Birtel MD, Wood L, Kempa NJ. Stigma and social support in substance abuse: implications for mental health and well-being. *Psych Res*.2018;252,:1–8.
8. Harm Reduction Coalition. Principles of harm reduction. Web site <http://harmreduction.org/about-us/principles-of-harm-reduction/> Retrieved on May 20, 2019
9. Stewart DM, Mueller CA. Substance use among nurses: A curriculum improvement initiative. *Nurse Educ*.2018;43(3):132–135. [PubMed: 28991035]
10. Knaak S, Modgill G, Patten SB. Key ingredients of anti-stigma programs for health care providers: a data synthesis of evaluative studies. *Can J Psychiatry*.2014; 59(10): S19–S26. [PubMed: 25565698]
11. Livingston JD, Milne T, Fang ML, Amari E. The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction*.2011;107:39–50. [PubMed: 21815959]
12. Shaw S, Cartwright A, Sprately T, Harwin J. Responding to Drinking Problems. London: Croom Helm1978.
13. Dion K Teaching nursing students how to decrease the stigma and discrimination against people who use drugs. *Nurse Educ*.2019;44(6):335–337. [PubMed: 30672845]
14. Nolte K, Irwin K, Lucey J, LeMire D, Prazar K. Have the conversation: caring for people who inject drugs. <http://nhhrc.org/have-the-conversation-caring-for-people-who-inject-drugs/>. Published 2017 Accessed August 25, 2019.
15. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap) - a meta-driven methodology and workflow process for providing translational research informatics support. *J Biomed Inform*.2009;42(2):377–381. [PubMed: 18929686]
16. Watson H, MacLaren W, Kerr S. Staff attitudes towards working with drug users: development of the drug problems perceptions questionnaire. *Addiction*.2007;102(2): 206–215. [PubMed: 17222274]
17. Watson H, MacLaren W, Shaw F, Nolan A. Effective interventions unit: measuring staff attitudes to people with drug problems. The development of a tool. <http://www.gov.scot/Publications/2003/08/17735/23437> Published 2003 Accessed August 20, 2019

18. Mahmoud KF, Terhorst L, Lindsay D, Puskar KR, Mitchell AM. Undergraduate nursing students' perceptions of individuals with drug use problems: confirming the factor structure of the drug and drug problems perception questionnaire. *J Addict Nurs.*2017;28(4):196–202.
19. Luoma JB, O'Hair AK, Kohlenberg BS, Hayes SC, Fletcher L. The development and psychometric properties of a new measure of perceived stigma toward substance users. *Subst Use Misuse.* 2010;45(1-2):47–57. [PubMed: 20025438]
20. Reynolds WM. Development of reliable and valid short forms of the marlowe-crowne social desirability scale. *J Clin Psychol.*1982; 38(1):119–125.
21. IBM Corp. Released 2017 IBM SPSS Statistics for Mac. Version 25.0. Armonk, NY: IBM Corp.
22. Creamer AM, Mill J, Austin W, O'Brien B. Canadian nurse practitioners' therapeutic commitment to persons with mental illness. *Can J Nurs Res.*2014;46(4):13–32. [PubMed: 29509455]
23. Nilsen SL, Stone WL, Burleson SL. Identifying medical–surgical nursing staff perceptions of the drug-abusing patient. *J Addict Nurs.*2013; 24(3):68–172.
24. Lauder W, Reynolds W, Smith A, Sharkey S. A comparison of therapeutic commitment, role support, role competency and empathy in three cohorts of nursing students. *J Psychiatr Ment Health Nurs.* 2002;9(4):483–491. [PubMed: 12164911]
25. Dumenco L, Monteiro K, Collins S, Stewart C, Berkowitz L, Flanigan T, Rich J, George P. A qualitative analysis of interprofessional students' perceptions toward patients with opioid use disorder after a patient panel experience. *Subst Abus.*2019;40(2):125–131. [PubMed: 30810496]
26. Monteiro K, Dumenco L, Collins S, Bratberg J, MacDonnell C, Jacobson A, Dollase R, George P. An interprofessional education workshop to develop health professional student opioid misuse knowledge, attitudes, and skills. *J Am Pharm Assoc.*2017;57(2): S113–S117.
27. Mitchell AM, Puskar K, Hagle H, Gotham HJ, Talcott KS, Terhorst L, Floravanti M, Kane I, Hulsey E, Luongo P, Burns HK. Screening, brief intervention, and referral to treatment: overview of and student satisfaction with an undergraduate addiction training program for nurses. *J Psychosoc Nur Ment Health Serv.*2013; 51(10), 29–37.