

Screening, Brief Intervention, and Referral to Treatment (SBIRT) Training Increases
Undergraduate Baccalaureate Nursing Students' Knowledge and Perceived Competence of Care
of Persons with Substance Use Disorders

Gabriella Shapiro

University of Cincinnati

Abstract:

In response to the current opioid epidemic, there is a dire need to expand treatment for persons with a substance use disorder (SUD). Nursing students in Traditional Undergraduate Baccalaureate Nursing programs will be providing patient care in a variety of settings and should be prepared to screen and provide brief interventions for persons with SUDs. To determine the amount of SUD training in traditional BSN programs in the state of Ohio, a brief survey was administered to baccalaureate nursing faculty, and results were inconclusive. An additional survey of senior BSN students yielded that students receive little to no SUD specific training. Forty-six percent of students stated they received 'no SUD-specific training' and 39% of students reported receiving '1 to 4 hours of SUD-specific training' (n=84). Thorough examination of one urban, state University's curricula was used to triangulate data from student responses and the Ohio Board of Nursing was queried to determine the state standard. Utilizing a pre-test/post-test design, a 90-minute Screening, Brief Intervention and Referral to Treatment educational intervention was delivered to senior BSN students. Results indicated that the training significantly improved knowledge of SBIRT and perceived competence in asking clients about their substance use, including non-medical prescription opioids.

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Introduction

Nursing students are entering the workforce with minimal training in the identification, management, and treatment of substance use disorders (SUD). In the United States, in 2014, it was estimated by the Substance Abuse and Mental Health Services Association (SAMHSA), National Survey on Drug Use and Health that 20.2 million adults aged 18 or older had a past year substance use disorder. Of these adults, 16.3 million had an alcohol use disorder and 6.2 million had an illicit drug use disorder. However only 7.5 percent of adults with a past year SUD, received treatment (Lipari & Van Horn, 2017). Barriers to SUD treatment include limited availability, not enough trained providers, long waitlists, stigma, and personal beliefs against receiving outside assistance for a SUD (Storholm et al., 2017). One evidenced based solution to improving access to substance use disorder treatment is incorporating screenings in primary care settings and other community health settings where screenings aren't typically offered. This can be done through the use of Screening, Brief Intervention, and Referral to Treatment (SBIRT).

SBIRT is the best, current practice, that can be used by healthcare professionals to identify abuse and dependence of alcohol and illicit drugs. SBIRT has been shown to decrease risky behaviors associated with substance use, increase composite mental health scores and increase community engagement a predictor of positive health outcomes (SAMHSA, 2017). Given the current epidemic, there is an urgent need for the widespread adoption and implementation of SBIRT by providers in the clinical and community/public health settings. Because new graduate nurses will be providing services in a variety of clinical, community and

public health settings, there is a great need to equip them with the training needed as frontline providers to screen and initiate treatment when patients interact with any type of provider services. The purpose of this evidence-based intervention, is to provide traditional senior BSN students with SBIRT training and determine if a 90-minute educational intervention will increase students' perceived competence in conducting screenings, brief negotiated interviews (BNI), and general knowledge about SUD treatment. In addition, we will report the hours of educational substance training prior to the intervention.

Review of the Literature

Current evidence regarding the amount of university provided, substance abuse training that nursing students receive is unclear. To better determine the amount of time and content students receive, we conducted a literature search. Results of the search did not yield enough information and were vague, stating students do not receive enough training. To bolster our support for the need of additional education related to SUD, we researched all the Traditional Undergraduate Baccalaureate (4-year) programs in the State of Ohio. Forty-six programs were identified, and a review of programs yielded that some programs had multiple sites, resulting in 39 programs in the state of Ohio. Through website navigation, we determined the Baccalaureate Program Director and utilized their email to create a database for survey distribution. The survey included 8 questions assessing substance disorder content across the BSN curriculum (Attachment 1.) was sent out on February 2, 2019. A total of 2 responses were received. The survey was sent again on February 18, 2019, and no responses were received.

The two responding programs reported that their Undergraduate Nursing Programs do not offer continuing education substance abuse training to nursing students. Both also reported that

students would benefit from SBIRT training to increase nursing student knowledge and perceived competence working with patients with SUDs.

Because of limited survey responses, we decided to triangulate data by comparing it to courses in an urban state University Traditional BSN program. I met one on one with the program director. The program director was asked the same questions that were on the survey sent out to the 39 program directors. The program directors' responses are summarized below. The University offers a 3-hour substance abuse focused course as an elective for junior and senior nursing students but is not a requirement in the curriculum (Bachelor of Science in Nursing Curriculum, 2016). The nursing program offers a continuing education substance abuse training as of 2019. This educational training is Screening, Brief Intervention, and Referral to Treatment (SBIRT). The program director believes that the training increases students' knowledge and perceived competence working with SUD patients.

In addition to speaking with the program director, we reviewed BSN curricula content, and noted that substance abuse was covered in the following courses: Mental Health (one lecture), Community as a Partner (one lecture), Scientific Basis for Professional Nursing Practice (one guest lecture - research around opioid use disorders), and in Leadership and Management (one lecture - focusing on nurses abusing substances). We also contacted the Ohio Board of Nursing to determine if they had information on the amount of time spent, and/or content of substance abuse trainings offered throughout the state of Ohio.

The Ohio Board of Nursing was not able to directly answer our question, but did provide us with Laws and Rules, Chapter 4723-5 Nursing Education Programs, section 13, *Curriculum for a registered nursing education program* (Ohio Board of Nursing, 2017). The Ohio Board of Nursing does enforce a minimum requirement in curricula, but they're unable to provide us with

the number of hours that are required for substance use disorders. Ohio Admin. Code 4723-5-13 posits that “Nursing art and science applied in a variety of settings to individuals or groups across the life span, that include but are not limited to: . . . Communication with patients, families and significant individuals; Concepts of teaching and learning; The exercise of clinical judgment, using evidence-based practice, to integrate increasingly complex knowledge, skills, and technologies as they relate to the patient (Ohio Board of Nursing, 2017). We think that the screening and motivational interviewing processes learned from SBIRT training, would apply in this category.

Methods and Design

Through a baseline survey, students reported the hours of substance training they've received from university BSN curricula. Program directors indicated that additional education in the form of an SBIRT intervention would benefit students. We aim to conduct a 90-minute in-person SBIRT training. Using a pre-test post-test design we will determine if the SBIRT training increases knowledge of SBIRT concepts, and students' perceived competence in conducting screenings and brief negotiated interviews with patients. It is our hope to resubmit the follow up survey (funding permits) at 1-year post training.

The PI has received IRB approval from The University of Cincinnati Institutional Review Board. All participants signed consent prior to study initiation. Participants were made aware that participation was voluntary, and they could withdraw from the study at any point. All student participants were given a \$25.00 e-gift card for completion of the in-person SBIRT training, pre-test and post-test, and a *30-Day Follow-up Survey*.

Sample/Setting

A convenience sample of participants were recruited from the University of Cincinnati, senior BSN class. Criteria for the intervention included all participants to be able to understand and communicate in English and are students (currently enrolled in nursing school). A total of 84 students agreed to participate in the study.

Instruments and Measurements

SBIRT Training Curriculum. The SBIRT educational intervention was developed as part of a SAMHSA funded grant-T1025942. This training was chosen because it was specifically developed and tailored for the Appalachian population, a population that makes up much of the Summit Catchment region. In addition, this training was modified to include instruction on *Medication Assisted Treatment for Opioid Use Disorder* and use of the *NIDA Modified Assist screening tool*, which is dire for this population given the current opioid epidemic.

The course objectives included:

1. Identify the risks and prevalence of substance use among the Appalachian population.
2. Understand the components of screening, brief intervention, and referral to treatment (SBIRT).
3. Identify validated screening instruments that can be used to evaluate substance use.
4. Identify barriers and benefits of SBIRT with the Appalachian population.

Table 1. Instruments for Data Collection			
Domain	Instrument	Questions	Time Point
Satisfaction	Baseline Satisfaction Survey	24-likert-type questions	Training

Knowledge, Skills, and Attitudes	Pre-Test	31 multiple choice and fill in the blank questions	Before Training
	Post-Test	19 multiple choice and fill in the blank questions	After Training
Behavioral (Clinical Practice Change)	30-day follow-up Survey	24-likert-type questions assessing use of SBIRT in practice	After Training

Procedures

Participants followed a REDCap initiated link where they provided written consent and completed the *Pre-Test*. After attending the in-person, group training, another link was generated by the PI and sent to students' emails. Students followed the link to complete the *Post-Test*, and *Baseline Satisfaction Survey*. At 30-days post-intervention another email link was sent to students so they could complete the final evaluation.

Results/Findings

Analysis below includes findings from the 84 participants who agreed to participate in the study and completed the baseline survey. Of the 84 participants who completed the baseline survey, 39 reported (46.4%) that they received no training in substance abuse education prior to the SBIRT training and 33 (39.3%) reported receiving 1 to 4 hours of SUD training. Twelve participants did not complete the post-test and because pre-test/post-test is a one group control their responses were removed from analysis of the change in knowledge results. Seventy-two participants completed both the Knowledge Survey Pre-test and Knowledge Survey Post-test. Participants scored significantly higher on the Knowledge Post-test (M=79.2%) compared to the

Knowledge Pre-test (M=69.5%). This allows us to conclude that the SBIRT, in person, group educational intervention significantly improved nursing student knowledge ($p<0.05$).

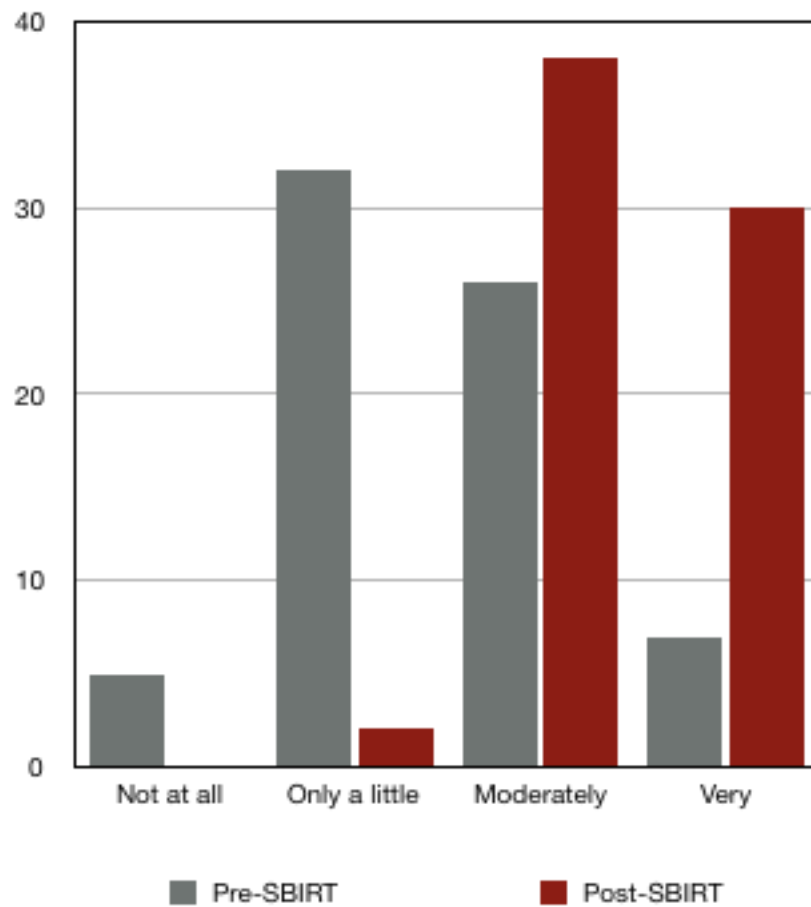
In addition to determining change in knowledge, students were asked about their perceived competence 'asking clients about their substance use and non-medical use of prescription opioids' before and after the training. Before participating in the 90-minute SBIRT training, 37 students stated they did not feel competent asking clients about their substance use and non-medical use of prescription opioids (defined as 'not at all competent', 'only a little competent'). After the training, only 2 students reported not feeling competent, while 68 students reported feeling competent in asking clients about their substance use and non-medical use of prescription opioids. These findings are depicted in Figure 1. Perceived Competence 'Asking Clients'. This finding allows us to conclude that the training increased student perceived competence in asking clients about their substance use and non-medical use of prescription opioids.

Reflection

I combined my senior capstone and undergraduate research scholar projects, into an independent research paper (and poster) that will be submitted into the Journal of Nursing Education Perspectives, with Dr. Angela Clark as my mentor. This project has inspired me to solidify my interest

in substance use disorders, and psychiatric nursing. The knowledge that I have gained from this SBIRT project has given me an advantage when interviewing for RN jobs. I have been able to discuss my project and my background in

Figure 1: Perceived Competence 'Asking Clients'



research, while informing, not just nursing students, but established nurses as well, about benefits of SBIRT training. As a new nurse, increasing my assessing and interviewing skills will contribute to providing the best patient centered care. Subsequently, our community is facing a substance abuse epidemic, and nurses need to be able to provide the proper care. I believe if

nurses were provided this training throughout their university curricula, more people would feel competent in working with SUD patients. To conclude, I have learned from personal experience, my classmates' responses, and nursing directors, that SBIRT educational interventions, and substance use disorder education within the BSN curricula, would be beneficial. Providing this training to nursing students and current nurses, will increase educational teaching, and outcomes for patients.

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