Integrating screening, brief intervention, and referral to treatment (SBIRT) training into social work curriculum: Outcomes and lessons learned

ABSTRACT

Although social workers frequently encounter clients with substance use problems, social work education rarely includes formal and in-depth training in addictions. Screening, brief intervention, and referral to treatment (SBIRT) is an evidence-based practice delivering early intervention and referral to treatment services through universal screening for individuals with or at-risk of substance use disorders. The purpose of this study was to explore the effects of SBIRT training on graduate social work students’ knowledge, readiness, and confidence toward SBIRT implementation. SBIRT training was introduced into a foundation practice course through on-line instructions, didactic sessions, training videos, and role play practices. A cohort of 54 first-year graduate social work students received the training and participated in videotaped role plays. SBIRT knowledge, readiness, and confidence were assessed at pre and post-test and paired t-test was used to examine changes. Students’ videotaped role plays were transcribed and coded by two trained coders for SBIRT-adherent and -non adherent behaviors as well as global skills. Findings showed statistically significant increases in participants’ knowledge, readiness and confidence in working with substance using clients. Several SBIRT-adherent behaviors that need further improvements were identified. Implications for social work education are discussed.

Keywords: SBIRT, alcohol screening, brief intervention, social work education, workforce development.

INTRODUCTION

Substance abuse is a major public health concern in the United States and around the world, causing a range of medical, psychological, social, and economic problems. According to the results from the 2018 National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019), 67.1 million and 16.6 million people aged 12 years and older in the United States have engaged in binge drinking and heavy drinking respectively in the past month. Additionally, an estimated 20.3 million Americans aged 12 years and older had a substance use disorder during the past year. Among all individuals surveyed who met criteria for a substance use disorder, 73% (14.8 million) had an alcohol use disorder. However, only 4.6% of those with an alcohol use disorder received a specialized alcohol abuse. Primary reasons for not receiving a treatment included not being ready to stop using (38.4%) or a lack of health coverage and not being able to afford the cost of treatment (32.5%) (SAMHSA, 2019).

Alcohol misuse contributes to physical and mental health morbidity, accidental injuries, sexual risk behaviors, fetal alcohol spectrum disorders, exposure to infectious disease,
alcohol-involved driving fatalities, and chronic diseases (Rehm and Hingson, 2014). An estimated 88,000 people die from alcohol-related causes annually, making alcohol the third leading preventable cause of death in the United States (National Institute on Alcohol and Alcoholism [NIAAA], 2020). Globally, some 3 million deaths, or 5.3% of all global deaths were attributable to alcohol consumption, and alcohol misuse was the fifth leading risk factor for premature death and disability in 2012 (World Health Organization [WHO], 2018). Alcohol misuse is also a recognized risk factor for numerous large-scale social problems such as intimate partner violence (Maldonado et al., 2015), child maltreatment (Freisthler and Holmes, 2012), school failure (Kelly, 2015), homelessness (Kirst et al., 2015), and suicidality (Kennedy et al., 2015), for which social workers provide assessment, prevention, and treatment as well as program and policy recommendations. Consequently, reducing and preventing alcohol misuse and its impacts has been identified as a Grand Challenge for social work (Begun et al., 2016).

Screening, brief intervention, and referral to treatment (SBIRT) is a cost-effective, empirically supported practice that aims to prevent and alleviate alcohol misuse and its consequences (Babor et al., 2007; O’Donnell et al., 2014). SBIRT involves universal screening for alcohol misuse with validated screening tools, patient education as indicated by screening results, nonjudgmental engagement to increase at-risk clients’ insight and motivation to change drinking behavior, and referral to brief treatment or specialized addiction treatment for those who need more intensive services (Babor et al., 2007). Its underlying approach is based on motivational interviewing, an evidence-based skill set originally developed by Miller and Rollnick to help substance-using clients overcome their ambivalence to change (2013). It effectively helps individuals change unhealthy patterns of alcohol use, especially among people who are not seeking treatment (Balbosa et al., 2015). In a meta-analysis of SBIRT used in primary care settings on four continents, Bertholet et al. (2005) found positive effects regarding reduction of alcohol consumption lasting up to 48 months after the brief intervention.

Changes in health insurance coverage for treatment of alcohol and other drug problems through the Affordable Care Act have created a demand for trained social workers who can provide empirically based clinical practice (Cochran et al., 2014; Mechanic, 2012; Stanhope et al., 2015). Although social workers encounter many clients with substance use problems, they typically do not receive in-depth instruction or training on addictions or substance abuse treatment during their formal education (Bliss and Pecukonis, 2009; Richardson, 2008; Wilkey et al., 2013). Few graduate social work programs require courses on alcohol and substance abuse, although those students who completed at least one alcohol-related field placement during their Master of Social Work (MSW) programs were subsequently better at diagnosing alcohol problems, were more willing to work with clients with alcohol problems and had higher levels of alcohol-related knowledge than those students who completed no alcohol-related field placement (Richardson, 2008).

Typical vehicles for a majority of clinical students and practicing clinicians to learn the basics of substance abuse are didactic learning via classroom lectures and online educational modules combined with experiential learning through role playing or simulated clients (Osborne et al., 2016). Given the prevalence of alcohol and drug misuse across all social work practice settings, infusion of SBIRT into core curricula is critical in ensuring that all social work students become adequately educated in how to assess and intervene with substance-using clients (Wilkey et al., 2013). Indeed, there is a growing research evidence that SBIRT training integrated into curricula resulted in significant changes in social work students’ knowledge, attitudes, self-perceived SBIRT skills, and confidence in their ability to work with substance-using clients (Osborne et al., 2016; Putney et al., 2017; Sacco et al., 2017; Senreich et al., 2017b). However, most of the existing research focus on SBIRT integration into electives where students self-select the course based on their interest or career goals, while few studies examine the impacts of SBIRT integration into core courses in a curriculum. The present research fills the gap by examining the impacts of universal training of SBIRT in the first-year core curriculum in a graduate social work program on students’ knowledge, confidence and readiness in working with substance using clients. The SBIRT training project evaluated in the present study was the result of a 3-year grant awarded by SAMHSA to a large, publicly funded university in an urban city. The goal of this initiative was to infuse SBIRT into the curriculum in bachelor’s-level nursing and human services and master’s-level social work programs at the university so that all students would be trained in this protocol by graduation. The present study focuses on the evaluation of SBIRT integration into the MSW foundation practice course. The authors of the study hypothesized that students’ SBIRT knowledge, readiness, and confidence would significantly increase from pre- to post-training.

METHODS

Participants and procedures

The sample in this study included a cohort of first-year students enrolled in the MSW program at a publicly funded urban university, designated by the federal government as
a Hispanic-serving educational institution. The new SBIRT curriculum was integrated into the semester-long practice course that already had in-class instructions on interviewing skills (2.5 h) and motivational interviewing (7.5 h). Newly added elements included 4-hour online training and one in-class instruction (2.5 h) focused on SBIRT-specific knowledge and skills. The face-to-face instruction followed a lecture format, guided by PowerPoint presentations, and then students were given an opportunity to practice SBIRT through role playing. Because the training was integrated into the core curriculum, participation in the training was mandatory for students in those classes.

Students completed online questionnaire before the semester started and again after the semester was over. Students were also required to videotape their role plays as a part of the evaluation. A case scenario was provided with instructions for students for a 10-minute video. Students’ videotaped role plays were collected at the end of the semester to measure students’ SBIRT-related behavior. Although students were required to take the surveys and videotape role plays as part of the curriculum, they were free to withdraw consent at any time and there was an additional consent for using role play videotapes for evaluation. It was emphasized that course instructors would not be informed of students’ consent status; therefore, non-consent would not affect their grades. While 85 students received training, 77 students consented to the use of survey, and 54 students consented to the use of both survey and videotaped role play. Therefore, the analysis for the present study only includes 54 students who provided consent for use of both surveys and role play videotapes for evaluation.

As a preliminary analysis, a series of independent t-test was conducted for major outcome variables to examine any significant group differences between participants consented to the use of both survey and videotaped role play (n=54) and students who only consented to the use of survey (n=23). While students with both consents had slightly higher change scores in confidence, knowledge, and readiness to change scores compared to students who consented to the survey use only, none of those differences was statistically significant. All procedures were approved by the California State University, Fullerton, Institutional Review Board (HSR-17-18-325).

**Measures**

**SBIRT Knowledge, Readiness, and Confidence**

Students’ knowledge was measured using two instruments: Fact-based knowledge and sample case. The fact-based knowledge was measured using 10 multiple-choice questions addressing drinking limits and brief intervention. Knowledge on SBIRT adherent responses was measured using a case example followed by 20-item true-false response options (herein after referred to as “sample case”). In these case-based questions, students were asked to answer whether provider’s questions to the individual described in the case example (e.g., “What motivated you to consider making a change?”) can be used to motivate changes in that individual. Readiness to provide screening and brief interventions for alcohol use was assessed using one-item with an 11-point Likert type scale ranging from low readiness (0) to high readiness (10). Students’ confidence was measured using nine items asking about their degree of confidence in conducting specific SBIRT activities, such as reviewing reasons for decreasing substance use with the clients or assessing their readiness to change. Each item was measured on an 11-point scale ranging from not at all confident (1) to extremely confident (11).

**MD3 SBIRT Coding Scale**

The videotaped role plays were coded using the MD3 SBIRT Coding Scale (DiClemente et al., 2015) for 14 SBIRT-adherent and seven SBIRT-non-adherent behaviors as well as two global skills, collaboration, and empathy. The examples of SBIRT-adherent behaviors include skills related to interviewing (e.g., use of open-ended questions, summarize, reflections), motivational interviewing (e.g., affirmation, explore pros and cons of substance use, assess readiness to change), intervention (e.g., goal setting and developing a plan), and other SBIRT-related skills. Each behavior was rated based on both quantity and quality of the behaviors using a 3-point scale ranging from 0 = behavior is absent to 2 = behavior is present and meets or exceeds the expectations of a good brief intervention.

There were seven non-adherent behaviors, which were coded as behavior counts. Examples of non-adherent behaviors include untimely or disrespectful advice-giving and/or establishing goal or agenda without client input, and inappropriate responses to client comment/question. The collaboration and empathy global ratings measured the extent to which the provider works cooperatively with the client from the client’s perspective in a way that foster collaboration and empathy and were coded on a 5-point Likert-type scale.

**Other variables**

Several demographic information including sex, age, race,
and ethnicity was collected. Other questions, such as prior education on substance use topic and motivational interviewing, and prior work experience in the social work-related field, were also included in the survey. In addition, perceived barriers in implementing SBIRT in practice were explored in open-ended questions at posttest.

Data analysis

Descriptive analyses were conducted to provide sample characteristics. For inferential analysis, paired sample t-test was used to examine changes on knowledge, readiness and confidence. In addition, students’ videotaped role plays were coded for SBIRT-adherent and -non adherent behaviors as well as global skills using a coding guide (DiClemente et al., 2015). This coding guide provided a behavior description and examples of each behavior. All videos were independently coded first by two trained graduate students and then reached the consensus. SPSS Version 27 was used to conduct the analysis.

RESULTS

Participants (N=54) were predominantly female (83.3%), and their ages ranged from 21 to 56 years (M=26.60, SD=7.55). Slightly less than half of the participants (42.6%) identified as white, followed by other (24.1%), multiracial (16.7%), Asian (14.8%), and African American (1.9 %). About 60% of the participants identified themselves as Hispanic origin (59.3%). A majority of the participants (62.5%) had some work experience in health care or social service agency prior to entering the MSW program. More than two-thirds of the participants (69.8%) had previously received some education on substance misuse, while more than a quarter of the participants (28.3%) had some education on motivational interviewing.

Effectiveness of the training was measured by changes in mean scores for each targeted variable using paired samples t-tests. As shown in Table 1, all variables showed statistically significant improvement at p<0.001 level between pre and post-test. These variables included knowledge (fact-based knowledge and sample case), participants’ self-report on confidence performing SBIRT-related activities and readiness for screening and brief intervention.

The SBIRT-adherent behaviors, as shown in Table 1, had a significant positive relationship with the SBIRT fact-based knowledge score, rs (54)=0.275, p=.044. However, it did not show statistically significant correlations with scores on sample case, confidence or readiness at p<0.05 level. Among 14 SBIRT-adherent behavior items, the most highly endorsed items were “reflection,” followed by “open-ended questions,” and “raise the substance use subject respectfully.” Low scoring adherent behaviors were “assess confidence,” “provide relevant medical information,” and “exploring pros and cons of substance use.” Regarding SBIRT non-adherent behaviors, 27.8% of the participants did not show any non-adherent behaviors while 13% showed 4 or 5 behaviors. The most frequently showed non-adherent behavior was “untimely or disrespectful advice giving and/or establishing goal or agenda without patient input,” as 42.6% of the participants showed this behavior at least once in this videotaped role play.

Out of 54 students, only nine students reported using SBIRT skills in their field placement. While those nine students had slightly higher scores in knowledge, confidence and readiness compared to students who did not have opportunities to practice in the clinical setting, none of those differences was statistically significant. The most frequently mentioned barriers in implementing SBIRT in the practicum included being placed in settings where primary clients were children or the elderly, followed by the clients’ resistance to change. Students remarked that implementing SBIRT was challenging because they were “working with elementary and middle school-aged children who have not presented issues of substance abuse” or “working in a fieldwork setting with seniors that does not involve clients who are facing alcohol or substance abuse issues,” and “resistant clients may not be aware of their issues and do not see it as a problem.”

DISCUSSION

According to the results, students showed significant increases in SBIRT knowledge, readiness to provide screening and brief interventions, and confidence in working with substance using clients after they completed the foundation practice class where the SBIRT curriculum was integrated. However, knowledge using a sample case, confidence or readiness did not show statistically significant correlation with the role play ratings, indicating that increase in students’ knowledge and their perceptions of readiness and confidence did not necessarily translate into behavioral changes in a way that others (coders in this case) can recognize. The 4-hour online training and a 2 ½ hour in-class instruction may have helped students gain SBIRT knowledge but did not provide enough time for them to learn how to apply the specific knowledge into practice. In fact, one student commented after watching brief training videos that were parts of the SBIRT curriculum, “I would have liked to have seen an entire session. For example, a clinician using this tool with a client.”

In reviewing the role playing ratings, the three most
highly endorsed SBIRT adherent behaviors were “reflection,” “open-ended questions,” and “raise substance use subject respectfully.” Given the participants were in their first-year foundation practice class which focused on therapeutic communication skills and motivational interviewing, it is understandable that they scored high on basic social work skills such as reflecting feelings, utilizing open-ended questions, and approaching the subject with respect. However, scores were lower in adherent behaviors that were SBIRT-specific (i.e., assess confidence, exploring pros and cons of substance use, and providing relevant medical information), which indicate that students did not feel as confident in their new SBIRT behaviors as they did in their foundational social work skills.

In addition, just a few students practiced SBIRT in their field placements, which further limited opportunities to put new knowledge into practice. Despite the in-class and online training on the basics of SBIRT, some students held onto misconception that SBIRT was a tool for substance abuse treatment instead of viewing it as a universal screening for substance abuse. Therefore, students seemed to share a common misconception that unless one was working at a substance abuse treatment setting or clients were interested in change, SBIRT was not applicable. Especially those who were placed in school settings or senior centers mentioned working with children or the elderly as reasons for not applying SBIRT in their practices as if these age groups were somehow protected from the risk of substance abuse. This misconception or preconceived notion is not unique to our study participants. Another study (e.g., Senreich et al., 2017a) also addressed the similar lack of concept of universal screening among SBIRT-trained social workers at post-graduation follow-up.

There are several limitations to the study, including the sampling and design issues. This study took place in only one publicly funded social work program in an urban area, and thus caution must be used in generalizing the findings to other social work programs. Ideally, we would have had a comparison group of students who completed the SBIRT training modules and another group who did not. However, our main goal was to ensure that all students received some SBIRT exposure; thus, a comparison group was not available. Additionally, the role play videotaping was done only once after the SBIRT training was completed, which may have posed a threat to validity.

**Conclusions**

The present study supports existing research that SBIRT training integrated into social work curriculum does increase students’ knowledge, confidence, and readiness. Despite the online and in-class training, however, the misconception that SBIRT is only for adult substance abusing clients or individuals interested in or who are ready for behavioral change seems to persist. To dispel the
mismisconception, the SBIRT curriculum needs to broaden its population focus by including training materials that reflect intergenerational families in general and adolescents and the elderly in particular who are at risk of substance abuse including alcohol misuse.

To facilitate connection between students’ knowledge, confidence, or readiness and behavioral changes, the online training and in-class instruction need be followed by carefully supervised role plays and opportunities to practice in the field placements. Students’ perceived barriers in implementing SBIRT in practice seem to reflect psychological barriers as well as institutional barriers. Their sense of discomfort or nervousness represents lack of confidence in their SBIRT knowledge. In addition, the tendency to rule out an opportunity to apply SBIRT based on superficial characteristics of their clients indicates limited understanding of SBIRT and its purpose. To address these barriers, it is upon social work programs to integrate the SBIRT curriculum intentionally and strategically. SBIRT need be introduced early in the graduate social work curriculum with ample opportunities for students to develop the knowledge and skills, and then reintroduced in the second year to solidify the knowledge. Moreover, to facilitate an effective SBIRT integration, it is crucial to engage the social work faculty in all stages from the planning to implementation and evaluation. There are also institutional barriers where social work field agencies may not be aware of or supportive of SBIRT being implemented in their agencies. Social work programs can proactively reach out to field agencies offering education on SBIRT to the field supervisors and preceptors. Such partnership between the university and field agencies will ultimately lead to greater opportunities for students to practice SBIRT and to build confidence in applying SBIRT with a wide range of populations.

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REFERENCES


