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The SBIRT Interprofessional Curriculum and Field Model

SHAUNA P. ACQUAVITA, PhD
Associate Professor, School of Social Work, University of Cincinnati, Cincinnati, Ohio, USA

RUTH ANNE VAN LOON, PhD
Professor, School of Social Work, University of Cincinnati, Cincinnati, Ohio, USA

RACHEL SMITH, MH SC
Program Manager, School of Social Work, University of Cincinnati, Cincinnati, Ohio, USA

BONNIE BREHM, PhD
Professor, College of Nursing, University of Cincinnati, Cincinnati, Ohio, USA

TIFFINY DIERS, MD
Associate Professor, UC Health Internal Medicine-Pediatrics, Hoxworth Center, Cincinnati, Ohio, USA

KARISSA KIM, PharmD, BCPS
Associate Professor, James L. Winkle College of Pharmacy, University of Cincinnati, Cincinnati, Ohio, USA

ANDREA BAKER, MSW
Adjunct Instructor, School of Social Work, University of Cincinnati, Cincinnati, Ohio, USA

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based practice to identify, reduce and prevent alcohol and drug use and abuse. SBIRT is a natural fit for interprofessional education (IPE). This article discusses an IPE SBIRT training model implemented with social work, medicine, pharmacy and nursing students that provided (a) education and training on SBIRT, (b) IPE experiences, and (c) clinical SBIRT application of learnings. Pre- and postpaired sample t tests indicated students' content knowledge on SBIRT and attitudes toward people with alcohol problems all significantly

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Address correspondence to Shauna P. Acquavita, School of Social Work, University of Cincinnati, P.O. Box 210108, Cincinnati, OH 45221, USA. E-mail: acquavsa@ucmail.uc.edu

improved ($p < .001$). Further, 95% of students would recommend this training.

KEYWORDS alcohol and other drug use, clinical skills training, evidence-based practice, interprofessional education, SBIRT, social work practice

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based practice to identify, reduce, and prevent tobacco, alcohol, and drug use and abuse (Substance Abuse Mental Health Services Administration [SAMHSA], 2016). According to SAMHSA (2011), SBIRT is based on a public health model whereby universal screening with valid and reliable measures is used to identify if an individual is engaging in harmful or risky use. SBIRT can take place in a community or health care setting that is not a substance treatment facility. If the individual screens positive for being at risk for substance use issues, a brief intervention (approximately 5–10 min) using the motivational interviewing (MI) approach is used. The individual is educated and encouraged to take steps to eliminate these behaviors and, if necessary, referred to appropriate resources. In the United States, approximately 70% of individuals fall into the low-risk use/abstain category for substance use, 25% are in the harmful or risky category, and 5% are substance dependent (Office of National Drug Control Policy, 2012). SBIRT has been demonstrated to be effective in addressing risky alcohol use and can be successful for risky drug use, depending on setting, provider, and population (SAMHSA, 2011).

Executing SBIRT training interprofessionally is ideal, as any health care professional can be trained to use it and a shared approach can then be implemented in practice. Interprofessional education (IPE) occurs when "students of two or more professions learn with, from, and about each other to improve collaboration and the quality of care and services" (Centre for the Advancement of Interprofessional Education [CAIPE], 2016, p. 1). IPE emphasizes active and experiential learning in both classroom and clinical settings led by interprofessional (IP) faculty teams. The goal of IPE is to develop skills for IP collaborative practice, the way health care is increasingly delivered with cooperation, collaboration, and teamwork. Social work has acknowledged the need for educating students for IP practice, stating that "Social workers value principles of relationship-building and IP collaboration to facilitate engagement with clients, constituencies, and other professionals as appropriate" (Council on Social Work Education [CSWE], 2015). Implementation of IPE in social work programs, however, is relatively infrequent; a 2013 survey found that only 25% of bachelor's in social work (BSW) programs and 44% of master's in social work (MSW) programs had specific IPE content (Taylor, Coffey, & Kashner, 2015).

IPE has been characterized by a proliferation of models, but research into best practices for delivering IPE has lagged. A review of the IPE literature (Abu-Rish et al., 2012) listed small-group discussion and problem-based learning as the most common IPE formats, with clinical teaching, direct contact with patients, and community-based projects as formats used to a lesser extent. Simulations were seen as increasingly important in IPE. Although evaluations of IPE are generally positive, the generalizability of these reports is limited by small sample sizes, a primary focus on attitudes rather than skills, and differing outcome measures (Brandt, Lutfiyya, King, & Chioreso, 2014). Additionally, most reports in the literature did not provide information about theoretical or conceptual frameworks for curriculum development; details of program settings, students, and outcomes; longitudinal follow-up to determine changes in participants' practice; or faculty development for IPE (Abu-Rish et al., 2012).

The IP course in SBIRT described here furthers our understanding of best practices in IPE. Created in 2015 with support from a SAMHSA SBIRT training grant, the course is grounded in theory, uses many of the teaching formats typical of IPE, and addresses needed faculty development. The course uses a hybrid model and was designed and implemented by faculty within the Colleges of Medicine, Nursing, Pharmacy, and Social Work for graduate and undergraduate students. Clinical and community-based partnerships tying skills applications to provisions of valuable services are described. Most significantly, immediate and longer term outcomes are assessed to determine knowledge and skill acquisition and changes in practice for substance use disorders (SUDs).

PURPOSE OF THIS STUDY

The purpose of this study was to assess the effect of a semester-long IPE course on SBIRT with students in medicine, nursing, pharmacy, and social work. Specifically, we wanted to examine their content knowledge of SBIRT, their attitudes toward the care of clients with alcohol use problems, their satisfaction with the course, and if they implemented SBIRT in their practice. This study was approved by the authors' institutional review board.

The SBIRT Interprofessional Course

The objectives of this course were to (a) educate and train students to deliver SBIRT, (b) provide IPE experiences, and (c) offer clinical experiences to implement SBIRT. Similar to Levin, Whitsett, and Wood's (2013) outline for blended learning, students were assigned asynchronous and synchronous components to complete the course. The asynchronous material included

online modules and virtual simulations. Synchronous components were a standardized patient experience and two clinical SBIRT experiences. This was a two-credit course.

This course uses an experiential approach whereby students are active learners; students learn from their experiences performing SBIRT and receive feedback. It follows Kolb's (1984) experiential learning theory and his cyclical model of four components for synthesizing learning: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization, and (d) active experiment. According to Kolb (1984), concrete experiences are the basis for the learner's reflection and observation. These are then absorbed into abstract concepts for the learner to implement. They are then tested again through active experiments. For the SBIRT course, students put into practice what they learned in the online modules and virtual simulations. The standardized patient experience initially serves as the concrete experience. Students are provided feedback by both their standardized patient and one of the course's instructors. Students are also encouraged to watch their own video to reflect on their experiences. They learn abstract concepts of SBIRT that they can apply in the clinical SBIRT experience. The clinical SBIRT patient experiences serve as the active experiment. This scaffolding approach of virtual simulation to standardized patient to in-person clinical experiences builds knowledge and confidence so that students are prepared to synthesize the information in real clinical situations. Table 1 presents the curriculum outline.

Asynchronous material for this course is completed first and introduces SBIRT through online modules and virtual simulations. These modules include Microsoft PowerPoint slides, videos, readings, and branching scenarios. Branching scenarios are online interactive case studies in which learners consider a situation, choose from among multiple ways to address it, and then receive feedback on their choices.

Students are also evaluated for content knowledge through virtual patient simulations (VPSs) that allow them to practice SBIRT skills. In a meta-analysis comparing medical education VPSs that were used in addition to traditional methods or as an alternative method, results indicated student learning improved significantly when VPSs were used together with traditional methods (odds ratio [OR] = 2.55, 95%, [1.36, 4.79]) and as an alternative (OR: 2.19, 95%, [1.06, 4.52]; Consorti, Mancuso, Nocioni, & Piccolo, 2012). Social work programs are starting to use VPSs to evaluate student learning (see Reinsmith-Jones, Kibbe, Crayton, & Campbell, 2015).

The synchronous components were completed in person by IP pairs of students. They consisted of optional faculty office hours for SBIRT practice, standardized patient experiences, and SBIRT clinical experiences. Optional faculty office hours occurred prior to the standardized patient experiences; students were encouraged to sign up and bring their partner to practice

TABLE 1 SBIRT Course Curriculum

Date	Topic	Evaluation measures
Prior to Week 1	Pretest	UMKC-SBIRT KA SAAPPQ
Week 1	Syllabus and introductions Lesson 1: What is SBIRT? Lesson 2: DSM and common terminology Lesson 3: Screening patient for substance use in your practice setting	Quizzes
Week 2	Lesson 4: Motivational interviewing, core features, brief intervention Lesson 5: Stages of change	Quizzes
Week 3	Lesson 6: Brief intervention Virtual simulation: SBIRT assessment Lesson 7: Levels of care	Quizzes VPS
Week 4	Lesson 8: Medication management Lesson 9: Referral to treatment Virtual simulation: At risk in primary care	Branching scenario Quizzes VPS
Week 5	Lesson 10: Integrating SBIRT treatment: Settings, technology, advocacy and reimbursement (STAR) approaches Scoring SBIRT videos Optional office hours: Practicing SBIRT[a]	Quizzes
Week 6	Standardized patient experiences[a] (2.5–3 hr per experience)	PERU
Week 7–Week 14	Clinical opportunities to practice SBIRT[a]	Feedback from faculty Pass/fail reflection paper
Week 14	Posttest	UMKC SBIRT KA SAAPPQ MI questions CSAT posttraining satisfaction survey
30-day Follow-up	Follow-up	30-day CSAT

Note: SBIRT = Screening, Brief Intervention, and Referral to Treatment; UMKC-SBIRT KA = University of Missouri–Kansas City SBIRT Screening & Brief Intervention Knowledge Assessment; SAAPPQ = Short Alcohol and Alcohol Problems Perception Questionnaire; DSM = Diagnostic Statistical Manual; VPS = virtual patient simulation; PERU = University of Pittsburgh's SBIRT Proficiency Checklist–Short Form; MI = motivational interviewing; CSAT = Center for Substance Abuse Treatment.
[a]Synchronous in-person components.

SBIRT within a group setting with a faculty member. Standardized patients are actors trained to portray a specific case. Standardized patients provide an opportunity for students to learn skills in a safe environment, develop and utilize practice skills, and receive feedback (Linsk & Tunney, 1997). Standardized patient cases are designed by faculty, so there is a high degree of control on standards tested and internal consistency (Badger & MacNeil, 2002). For this course, a specific standardized patient case was developed by the IP course faculty. For the standardized patient simulation, students

were assigned to IP pairs and administered SBIRT together, with each student administering one screening tool. After completing the simulation, students received feedback from the actors. They then debriefed with faculty who had observed the simulation. Students were video-recorded and evaluated separately for administering SBIRT by their own discipline's faculty member using the University of Pittsburgh's SBIRT Proficiency Checklist–Short Form (PERU). Prior to the simulation, students had an assignment to view a video of a practitioner demonstrating SBIRT and then grade the interviewer's implementation skills using the PERU to familiarize themselves with the grading tool. For extra credit, students could review their video-recorded interview and write a one-page reflection paper identifying two ways they could improve.

After the standardized patient experience, students then administered SBIRT in IP clinical experiences in health care and community agency settings. Students delivered SBIRT in a men's or women's shelter for the homeless, a Federally Qualified Health Center, a food bank, or the university hospital. These settings were selected because they have served as practicum sites for health professions students, and have strong ongoing partnerships with the university. At each site, students were oriented to the setting by staff, implemented SBIRT in IP pairs with a university faculty or agency staff member present, and then participated in a debriefing session with a faculty or staff member. Debriefing focused on how the student established rapport and engaged the client, the client's stage of change, the strategies used, and the barriers to change, as well as how their partner assisted them and how to address substance use interprofessionally. Each student had the opportunity to conduct SBIRT on at least one patient during their clinical experiences.

METHOD

Participants

Inclusion criteria for this study required students to be a medical student, a graduate pharmacy student, an undergraduate senior or master's-level social work student, or an undergraduate junior or senior or graduate nursing student enrolled in the SBIRT course. They also needed to be at least 18 years of age and be able to fully understand and communicate in English. Two hundred and sixteen students completed the course, 199 students consented to participate, 195 students completed the pretest, 185 students completed the posttest, 167 answered the Center for Substance Abuse Treatment (CSAT) posttraining satisfaction survey, and 159 students completed the 30-day follow-up. A total of 181 (91.0%) graduate-level and 18 (9.0%) undergraduate students consented to participate in this study; only 159 (79.9%) completed the pretest, posttest, CSAT posttraining satisfaction survey, and 30-day follow-up survey. Participants

were mostly female, White, and had some previous course content on SUDs; fewer than 50% of the students reported taking a prior course in MI skills. Complete demographic information is available in Table 2.

Measures

Students completed pre- and posttests for content knowledge, attitudes toward the care of patients with alcohol use problems, and SBIRT skills. The faculty also assessed students' SBIRT skills proficiency. Students provided feedback by completing satisfaction questionnaires at the end of the course and 30 days later. Measures included the following.

University of Missouri–Kansas City SBIRT Screening & Brief Intervention Knowledge Assessment

The University of Missouri–Kansas City (UMKC) SBIRT Health Professions Training Program used a survey adapted from the Addiction Training for Nurses (ATN)-SBIRT Brief Intervention Knowledge Assessment (Puskar et al., 2013). We modified this scale by using only 12 of the 20 knowledge

TABLE 2 Demographic, Educational, and Experiential Information About Study Participants

Variable	*n*	%
Gender		
Male	48	30.2
Female	111	69.8
Race or ethnicity		
White	127	79.9
African American/Black	17	10.7
Asian	19	12.0
Other	4	2.5
More than one race	9	5.7
Hispanic or Latino	7	4.4
College or field of study		
Medicine	57	35.8
Nursing	10	6.3
Pharmacy	37	23.3
Social work	55	34.8
In a current practicum or Internship (Yes)	90	56.6
Number of hours of prior substance abuse education or training, including any training with nonmedical prescription opioid use		
None, not sure, or don't recall	72	45.3
1–4 hr	53	33.3
5–10 hr	14	8.8
11 hr or more	20	12.6
Prior motivational interviewing skills education (Yes)	77	48.4
Prior motivational interviewing skills practice (Yes)	65	40.9

Note: $N = 159$, no missing data.

items that focused on the Alcohol Use Disorders Identification Test (AUDIT) and Drug Abuse Screening Test (DAST), the screening tools used in this course. Our modified scale included six multiple-choice and six true–false items from the UMKC SBIRT Screening & Brief Intervention Knowledge Assessment (UMKC–SBIRT KA), for a total score of 12 points.

The Short Alcohol and Alcohol Problems Perception Questionnaire

The Short Alcohol and Alcohol Problems Perception Questionnaire (SAAPPQ) is a 10-item scale of general statements designed to measure therapeutic attitudes of nonspecialist, community-based care providers working with clients with alcohol abuse (Anderson & Clement, 1987; Gorman & Cartwright, 1991). The measure has demonstrated strong reliability (α = .93; Richardson, 2008). A 7-point Likert scale is used, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*); a higher score indicates a better therapeutic attitude toward clients with alcohol use problems. The SAAPPQ has two broad domains—role security and therapeutic commitment—that are derived by adding items from the five subscales, as shown in Table 3. Cronbach's alpha was found to be .62 for role security and .68 for therapeutic commitment for this study.

Motivational interviewing questions

Two questions were locally developed to assess learners' prior MI education and skills. These questions were "Prior to taking this SBIRT course, have you

TABLE 3 Paired *t* Test Analysis of Outcome Scores with Cohen's *d* Effect Size

Measures	Pretest *M*	Pretest *SD*	Posttest *M*	Posttest *SD*	*t*	*df*	*p*	*d*
SAAPPQ domain role security	17.35	3.09	21.03	2.77	−12.859	158	<.001	1.254
Adequacy	7.97	2.31	10.97	1.63	−14.587	158	<.001	1.504
Legitimacy	9.38	1.92	10.06	1.97	−3.788	158	<.001	0.345
SAAPPQ domain therapeutic commitment	28.69	3.50	30.67	4.12	−5.925	158	<.001	0.514
Self-esteem	9.99	2.15	10.95	2.31	−4.378	158	<.001	0.431
Motivation	10.03	1.45	10.58	1.63	−3.813	158	<.001	0.354
Satisfaction	8.68	1.33	9.14	1.62	−3.776	158	<.001	0.309
Modified UMKC-SBIRT KA	9.59	1.31	10.76	1.11	−9.489	158	<.001	0.957
PERU	N/A	N/A	8.28	1.952	N/A	N/A	N/A	N/A

Note: *N* = 159. SAAPPQ = Short Alcohol and Alcohol Problems Perception Questionnaire; UMKC-SBIRT KA = University of Missouri–Kansas City SBIRT Screening & Brief Intervention Knowledge Assessment; PERU = University of Pittsburgh's SBIRT Proficiency Checklist–Short Form. A two-tailed *p* value (< .05) was used as the cutoff point for significance.

ever taken a course that focused on Motivational Interviewing skills? (yes, no, unsure)," and "Prior to taking this SBIRT course, have you ever had the chance to practice Motivational Interviewing skills with clients/patients? (yes, no, unsure)."

University of Pittsburgh's SBIRT Proficiency Checklist–Short Form.

Skills using the SBIRT techniques in a standardized patient experience were assessed using the PERU (Pringle, Seale, & Bray, 2014). In 2014, the PERU was deemed a valid instrument to assess SBIRT fidelity (Pringle et al., 2014). The PERU contains 13 items that assess skills related to screening, brief intervention, referral, follow-up, and MI. A higher level of proficiency is indicated by the greater number of points awarded. Two of the 13 items (referral to treatment) were considered nonapplicable for grading purposes due to the low level of risk portrayed by the standardized patient in the case study used for the simulation. Therefore, the total score for this measure was 11.

Center for Substance Abuse Treatment Posttraining Satisfaction and Follow-Up Training Satisfaction Surveys (Version 2.0)

The Government Performance and Results Act of 1993 (Pub. L. 103–62) or GPRA requires recipients of SAMHSA funding to evaluate program participants' satisfaction. Specifically, participants rate the quality of the training, report if any information from the training has been shared with others, and report if information gained has been used to promote or effect change. The CSAT survey uses a 5-point Likert scale ranging from 1 (*very satisfied*) to 5 (*very dissatisfied*) to rate overall quality of the training, materials, and the training experience; a second 5-point Likert scale, ranging from 1 = (*strongly agree*) to 5 (*strongly disagree*), is used to report satisfaction on 12 items, which include organization of the training, usefulness and relevance of the training and materials, instructor knowledge and preparation, whether the training enhanced their skills, and if participants would recommend the course to a colleague. A third 5-point Likert scale, ranging from 1 (*very useful*) to 5 (*not applicable*), rates the usefulness of information received from the instructor. The follow-up survey asks respondents if they have shared the information or materials or applied what they have learned to their work (yes or no). There are also two open-ended questions for participants to report what was most useful in the training and how it can be improved.

Study Procedures

Students were administered a pretest online using Survey Monkey software, which consisted of the demographic information and items from UMKC-

SBIRT KA and SAAPPQ. The posttest consisted of the same measures plus two questions inquiring about prior MI education and experience. Students who enrolled in the course were recruited by the project manager to be study participants. Students were informed that participation was voluntary and confidential, and that the faculty instructors would have no knowledge of who participated in the study. Students were given 10 days to complete each measure; e-mail reminders were sent along with text reminders. A $15 Amazon.com gift card was the incentive for study participants to complete the CSAT posttraining satisfaction survey and a $20 Amazon.com gift card was offered for completing the 30-day follow-up survey.

Analyses

All quantitative analyses were conducted in SPSS (Version 23). Frequencies and means were computed for the demographic data and CSAT posttraining satisfaction survey and follow-up survey analyses. To compare the scores from the pre- and posttests, paired *t* test analyses and Cohen's *d* effect sizes were used. Effect sizes were interpreted as follows: 0.2 represents a small effect size, 0.5 represents a medium effect size, and 0.8 represents a large effect size (Cohen, 1988).

RESULTS

Knowledge and Outcome Measures

The faculty assessed students' proficiency in SBIRT in the standardized patient experience with the PERU. Students scored an average of 8.28 (SD = 1.95). Paired-sample *t* tests of the mean differences between the pre- and posttest scores of the course indicated students' content knowledge on SBIRT and their attitudes toward people with alcohol problems all significantly improved during the course (for *t*-test results and effect sizes, see Table 3). The gains from pre- to posttest on the two broad domains of SAAPPQ (role security and therapeutic commitment) and knowledge assessment were medium in magnitude ($d \geq 0.50$). As shown in Table 3, the gain on the adequacy subscale was largest (d = 1.504), suggesting the course had a positive impact on the students' perception that their knowledge of what causes drinking problems is enough to carry out their work role and ability to appropriately advise clients about drinking and its effects (see Table 3).

Students' overall satisfaction (n = 159) at completion of the SBIRT course and 30 days after completion was ranked high, with most questions scoring 95% or above. Posttraining satisfaction surveys indicated 95% of students would recommend the training to a colleague. Ninety-eight percent of students strongly agreed or agreed with the statement, "The training

enhanced my skills in this topic area" at baseline and 98.7% at 30-day follow up. Ninety-six percent of students strongly agreed or agreed "The material presented in this class will be useful to me in dealing with substance abuse" and 98% at 30-day follow up. Eighty-seven percent of students reported sharing information from the course with others at 30-day follow-up. Sixty-five percent of students at 30-day follow up had applied what they learned in the training to their work. Many of the students who completed the course were still in school at the time of follow-up, thus not all would be able to apply it in employment.

Student Feedback

Overall, students found the course to be very valuable, especially the aspects related to learning MI skills and practicing them in clinical experiences. A medical student reported, "I think the skills learned on motivational interviewing, identifying goals and potential hurdles, was most helpful, as I think this can apply to all patient interaction, not just substance abuse treatment." Even though some felt the virtual simulation system was rather time consuming, it was deemed a valuable learning tool for the variety of skills and appropriate language needed for SBIRT and client interactions. Also, students recognized the importance of real-world practice of skills along with the IP experiences. A social work student reported, "I think a topic like substance abuse is a perfect topic for allowing different medical professions to work together. In the real world, social workers, counselors and doctors may all work together to provide adequate care for patients with substance abuse problems, so learning more how to work with other professions would be good."

DISCUSSION

Overall, outcomes of the course evaluation were positive and indicate that the course objectives were met. Despite evidence for the effectiveness of SBIRT and MI in clinical practice and the growing impact of opioids in particular on public health, only 54.7% of the students entering the SBIRT course had prior substance abuse education; fewer had specific training in MI (48.4%) or had practiced MI (40.9%). Through this curriculum, students improved their knowledge and attitudes in these key areas. The scaffolding approach of virtual simulation to standardized patient to in-person clinical experiences enabled students to develop and apply skills for practice, as demonstrated by SBIRT proficiency testing. Importantly, the IP nature of this course created a shared approach among learners across the health professions and fostered an atmosphere of IP teamwork in achieving mutual goals

of healthy behavior change in patients. Students worked in IP pairs in the standardized patient and clinical experiences. Students were notified of their assigned partner 2 weeks prior to the standardized patient experience and were strongly encouraged to meet and practice SBIRT. Some students met; others did not. Reasons students reported for not meeting included scheduling conflicts and feeling proficient in SBIRT. However, being proficient in SBIRT did not always ensure success for the student, as the nature of the standardized patient experience required negotiating time to administer the screening tools and share results with the patient in an IP manner. Clinical experiences also were IP in nature but had more flexibility in regard to time. Students were able to implement SBIRT and receive feedback from faculty, staff, patients, and other students. Students were asked to reflect on the IP experience in the debriefing session. Despite the complexities associated with IPE, the course was well received by students, and their interest particularly in the IP aspect of the course and the experiential application of skills suggests opportunities for expansion of these aspects of the curriculum.

Lessons Learned for Implementing SBIRT

Working within an IP context creates learning opportunities for both students and faculty members. Scheduling experiences among several disciplines is a problem commonly cited in IPE. Asynchronous online learning provides a solution to that issue. However, students attest to the value of the face-to-face experience, both for practicing skills and developing relationships with other students and faculty. This hybrid course had a mix of online and limited in-person learning, and students had choices in scheduling the in-person experiences. This model might be the most viable option for large IPE efforts. Experiential learning attracts students, particularly those in disciplines that delay entry into clinical experiences. Students seek opportunities to apply what they are learning to practice in "real-life" situations. In this course, clinical experiences were its highest rated element. Piloting IPE courses that have multiple instructional methods with a small number of students would be wise, particularly if administrative or staff support for the course is lacking.

Implementing IPE reveals administrative and organizational barriers. One such issue that arose prior to offering the course was the determination of which school or college would house the course and its corresponding revenue from student enrollment. Beyond revenue sharing, potential advantages of offering the course across colleges include support from the college administrators and release time for faculty instructors. Although some disciplines were able to recruit students more easily than others, all faculty needed to be aware of the importance of adequate enrollment to provide IP experiences.

Clarifying faculty roles, expectations, and grading criteria is essential, as these often differ across disciplines. Leadership should also be considered when using IP faculty teams. Designating one lead instructor to oversee the course can aid with consistency during the semester. Rotating the lead instructor for different semesters can help to reduce the long-term burden for an IP course while maintaining consistency.

Even with careful planning, problems can develop; flexibility is important. Sometimes in the community experiences, there was waiting time between clients or when some clients did not arrive for the clinical SBIRT experience. When this occurred, a form of role-play, dubbed SBIRT Theater, was initiated by the instructor. SBIRT Theater consisted of the instructor enacting the role of a client receiving a substance use screening from the students and providing feedback.

Community partnerships were also key to successful clinical community experiences. Organizations were asked to be on the grant steering committee and received $500 for yearly participation. Meetings were held with key staff from organizations, and free SBIRT training was provided prior to initiation of the clinical experiences. Feedback was solicited from the agencies after each semester to ensure open communication and satisfaction with the experiences occurred for both parties. On one occasion, the faculty were able to successfully nominate a community partner for an award; seeking out recognition for community agencies for their time and effort helps in building partnerships.

Grant funding often supports development of IPE, as in this case, but attention should be paid to ways to sustain these efforts after the funding period. Suggestions for modifications that promote sustainability include all areas of the course: online modules, virtual simulations, standardized patients, and clinical experiences.

Many organizations distribute free online modules on SBIRT topics. These include the Addictions Technology Transfer Center (ATTC), the Institute for Research, Education, and Training in Addictions (IRETA), and the BIG (Brief Intervention Group) Initiative SBIRT Education. Using modules from these groups can reduce the cost of curriculum development as well as ensure that content is current. Additionally, SBIRT training embedded in existing courses might be easier to maintain than stand-alone courses, and having a library of online modules can allow for easy incorporation into appropriate courses across disciplines.

Empirical educational tools provide a way to assess clinical performance through objective data, virtual simulations, and standardized clients. VPSs can be somewhat costly, so administration must recognize a value in using this method of learning to support it financially (Smokowski & Hartung, 2003). Some universities are buying universal licensing access to VPSs for their students, and others are creating their own VPS scenarios. Branching scenarios

might be a cost-effective substitute for commercial VPS products, as these can be built in PowerPoint and other software applications readily available in universities, and can be modified as needed.

There are several ways that standardized patient scenarios can be implemented if a standardized patient lab is not available. Working with drama departments and community drama organizations are ways to recruit and hire actors. Using families involved in home-schooling groups (for child actors), alumni, and current social work students are also options; however, their acting skills might not be as sophisticated as those of trained professionals. A lab fee for the course can help with the expense of standardized patients.

Scheduling IP student pairs for multiple clinical experiences in various community agencies is time-consuming, as is faculty precepting of these experiences. As an alternative, SBIRT training could be offered to field instructors and clinical preceptors at current placement sites that use or have the potential to use SBIRT; these professionals would be prepared to supervise student experiences.

Limitations

There are several limitations to our study. Student participants comprised a small convenience sample that was self-selected; therefore, this sample might not represent our student population in terms of IP, MI, or SBIRT knowledge and experience. Furthermore, our results with participants from a single urban university are not generalizable to dissimilar institutions.

Although this study used several tools with previously demonstrated reliability and validity to assess participants' knowledge, skills, and attitudes, a two-question MI survey was developed and two prior surveys were modified, but these were not analyzed for internal consistency. Due to the variation in clinical experiences described earlier, all students did not have the same opportunities to practice SBIRT skills in these real-life settings. This inconsistency in experiences could have resulted in differing levels of satisfaction with the course and confidence in knowledge and skills, as students reported clinical experiences to be the most important element in the course. Finally, students entered the course with various background levels in the content covered, especially as related to MI skills; this might also have affected student experience and satisfaction in the course. Further studies could use a comparison group to counter the effects of maturation.

CONCLUSION

This interprofessional SBIRT course was successful in developing skills for evidence-based practice in health professions students. The use of online

modules to provide content knowledge and beginning skill practice solved some of the scheduling problems common to IPE efforts. Using VPSs and standardized patients allowed for further skills practice prior to using SBIRT with clients in clinical and community agency settings. Working in IP pairs allowed students to develop skills for collaborative practice, as they relied on each other to offer appropriate care and service to patients and clients. Lessons learned in designing and delivering this course are instructive for scaling it to a greater number of students and for new IPE course development.

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