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Skills-Based Residency Training in Alcohol Screening and Brief Intervention: Results from the Georgia-Texas “Improving Brief Intervention” Project

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Abstract

Alcohol screening and brief intervention (SBI) is recommended for all primary care patients but is underutilized. This project trained 111 residents and faculty in 8 Family Medicine residencies to conduct SBI and implement SBI protocols in residency clinics, then assessed changes in self-reported importance and confidence in performing SBI and brief intervention (BI) rates. Clinicians reported significant increases in role security, confidence, and ability to help drinkers reduce drinking and decreased importance of factors which might dissuade them from performing SBI. Stage of change measures indicated 37% of clinicians progressed toward action or maintenance in performing SBI, however numbers of reported BIs did not increase. At all time points 33–36% of clinicians reported BIs with 10% of the last 50 patients. Future studies should focus on increasing intervention rates using more patient-centered BI approaches, quality improvement approaches, and systems changes that could increase opportunities for performing BIs.

Keywords

Medical education; internship & residency; alcohol screening; brief intervention; program evaluation; attitudes of health personnel

INTRODUCTION

Alcohol screening and brief intervention (SBI) reduces at-risk drinking (1–2), is cost-effective (3), and decreases health risks (4). The US Preventive Services Task Force recommends SBI for all primary care patients (5), however SBI is infrequently performed in primary care (6). If SBI is to become widely translated into outpatient practices, SBI training must become integrated into residency curricula. Previous studies have shown that clinicians’ lack of confidence in assessing alcohol use and providing brief advice (7) is a significant barrier to SBI practice. Research indicates that low screening and intervention rates correlate with lack of training and low clinician self-efficacy (8–10). Several training

efforts with practicing physicians have produced modest increases in rates of advising patients to reduce drinking (11–13), however studies in residency training programs have yielded conflicting results. Some generated increased resident confidence in identifying problem drinking (14) and advice to reduce drinking (14–16), while others showed increased alcohol interventions only among faculty (17–18). One study conducted among practicing physicians suggested that physician intervention rates increased only among clinicians who already felt secure and committed to working with drinkers (19).

The Georgia-Texas “Improving Brief Intervention” Project offered alcohol SBI training in eight Family Medicine residency programs in Georgia and Texas, in conjunction with providing assistance to local personnel in designing protocols for instituting routine alcohol screening and prompting of providers to conduct brief interventions. The project’s aims were to: (1) train residents and faculty to conduct alcohol SBI in their outpatient practices, (2) design and implement local SBI protocols at each of 8 residency clinics via collaboration between project leaders and local clinic personnel, (3) assess changes in clinicians’ perceived importance and confidence related to SBI, and (4) measure project impact on clinicians’ self-reported BI rates.

METHODS

Sample

Eight family medicine residency training programs participated in this study between January 2006 and December 2007. Nine programs in Texas and Georgia were invited to participate, and eight agreed to do so. Two programs withdrew prior to inception for financial reasons and a third was lost due to relocation to a new hospital. Three additional residency programs were recruited to replace them, resulting in eight participating residency programs out of 12 potential participants (67%). Methods for training clinicians and implementing routine SBI in residency clinics were based on those utilized in the University of Connecticut’s “Cutting Back” program (11–12) and adapted for residency use in the Macon Healthy Habits Project (15).

Project Implementation

The project was presented to faculty and key residency and clinic stakeholders at an informational meeting. On-site stakeholders selected a faculty site coordinator and created an SBI implementation committee. The typical committee consisted of the residency director, faculty site coordinator, clinic director, nursing supervisor/administrator, a resident, and representatives from medical records, registration, and information technology. A clinic implementation guide, also adapted from “Cutting Back,” was used to guide the committee in adapting training procedures, implementing SBI protocols, and assigning individual tasks for preparation and startup.

SBI Protocol

The SBI protocol integrated tobacco and alcohol screening into nursing vital signs. Nurses asked the NIAAA single alcohol screening question (20) as an initial alcohol prescreening question, then administered the Alcohol Use Disorders Identification Test (AUDIT) (21), the project’s screening instrument, to prescreen-positive patients. Patients were asked to complete paper AUDITs before seeing the physician. Physicians scored the AUDITs during office visits, then conducted stratified brief interventions modeled after those of the Cutting Back program (11–12). For patients with AUDIT scores of 15 or less, clinicians offered a brochure-based brief intervention focused on contracting with patients to cut back to NIAAA “safe drinking limits” (for men under age 65, no more than 14 drinks per week and no more than 4 drinks per occasion; for women and men age 65 and over, no more than 7

drinks per week and no more than 3 drinks per occasion) (20). For patients with AUDIT scores of 16 or more, clinicians encouraged abstinence, assessed and addressed potential withdrawal risk, and attempted to contract with patients for drinking cessation. For patients who were unwilling to quit, physicians attempted to negotiate a lower drinking goal. Clinicians also offered a menu of additional services including medication, self-help groups or specialty referrals. Four residency clinics with electronic medical records (EMRs) created mechanisms for accommodating information regarding prescreen and screening results, diagnoses, and documentation of interventions performed; four other clinics used traditional paper charts.

Curriculum

Training included an initial SBI workshop followed by three booster sessions (see Table 1). The workshop, usually taught as a three-hour block, included a review of SBI's evidence-base, demonstration videos, role play practice, and instruction in SBI documentation. The workshop was offered to all faculty, residents and nurses. Make-up sessions were scheduled with all residents who were unable to attend the session. Trainings were conducted in a stepwise fashion at all eight sites between January and November, 2006. Three 70-minute clinician booster sessions, taught using a team-based learning technique, were conducted during the ensuing year at four-month intervals. Details of the team-learning approach and curriculum have been previously described by Shellenberger, et al (22) These sessions combined review of content from the initial session with new content using case studies. SBI compliance feedback was also presented at these sessions to reinforce continued use of SBI.

Faculty

Four faculty and three project staff members prepared the teaching materials. The principal investigator, whose background includes a substance abuse faculty development fellowship and certification by the American Society of Addiction Medicine, taught all of the initial workshops assisted by other project faculty and staff. The other three faculty had graduate training in substance abuse or 3–25 years of previous experience of SBI teaching and curriculum development. Each booster session was taught by two faculty and one staff member. At least two faculty from each participating residency participated in a faculty development workshop of 1 ½ days to learn SBI skills and implementation strategies.

Participants

Residents and faculty who participated in the three-hour SBI training seminars were recruited to participate in the project's research component, which was approved by the Institutional Review Board of Mercer University. Written informed consent was obtained. Of 300 physicians (106 faculty and 194 residents) who attended initial training seminars, 195 (65.0%) enrolled in the study and completed a pre-training clinician questionnaire. Among enrollees, 134 (68.7%) completed post-training questionnaires within 30 days of training, and 125 (64.1%) completed 12-month follow-up questionnaires. Statistical analyses were performed on the 111 clinicians (34 faculty and 77 residents; 56.9% of enrollees) for whom all three datapoints were available.

Comparison of completers and non-completers

Because a relatively large number of participants did not complete surveys at all three timepoints and were not included in these analyses, a comparison of the 111 with complete data and those with only one or two surveys completed (n=84) was conducted. There were no significant demographic differences (age, gender, race, ethnicity) between the two groups. SBI measures were also compared across the two groups. Results showed significantly higher levels of role security for those with complete data compared to those

with incomplete data (mean pre-training score = 7.75 vs. 7.26, $p < .05$). All other measures (therapeutic commitment, importance, confidence, pros, cons, number of BIs performed) were similar for each group.

Measures

Changes in clinicians' SBI attitudes and behaviors were assessed using clinician questionnaires administered in person by project staff before, immediately following, and 12 months after training. Measures included the role security & therapeutic commitment scales from Short Alcohol and Alcohol Problems Perception Questionnaire (23). A series of ten scaling rulers (24) to assess the importance and confidence in performing SBI was also created, reflecting 10 different components of SBI (see Table II, Section A).

Participants recorded their level of importance and confidence on a ten-point Likert scale. Three other items designed to measure respondents' confidence in performing critical SBI tasks were also included. These items, rated on a five point Likert scale (from "not at all confident" to "extremely confident") asked clinicians to rate their confidence in asking patients about their alcohol use, advising them to cut down or quit, and helping them cut down or quit. A decisional balance measure, patterned after measures developed for smoking cessation intervention (25), was used to evaluate clinicians' pros and cons for performing alcohol SBI. These items measure how important each "pro" and "con" item is to the clinician in deciding whether to engage in SBI behaviors. Items were scored from 1 (not important at all in their decision) to 5 (very important--see Table 2, Section B for list of items). Additionally, an algorithm, composed of a series of yes/no questions, was created to identify physicians' stage of change in regard to performing BI with at-risk drinkers (see Table 2, Section C for items and scoring).

Statistical analyses

Cronbach's alpha was used to measure internal consistency at post-test of five self-assessment instruments (importance scales, confidence scales, three-item confidence scale, and seven-item pros and cons scales), and all were found to be acceptable (.961, .973, .863, .828, and .861, respectively). Paired sample t-tests and chi-square analyses were used to compare pre-training responses with responses post-training and at 12 months. Physicians were also asked at each time point how many BI's they had performed among the last 50 patients they had seen.

RESULTS

(1) Demographics

Participating clinicians were demographically diverse (see Table III). Almost half of residents and over 40% of faculty respondents were female. A majority of faculty were white and over one-fourth were African American. More than one-fourth of residents were Asian and over one-third were white. Ages ranged from 26 to 64, with means of 34.4 years for residents and 47.1 years for faculty.

(2) Role Security & Therapeutic Commitment Measures

Mean scores for role security and therapeutic commitment scales were tracked longitudinally. Clinicians' scores for role security (acceptance of and comfort with their role in screening and brief intervention), increased from 7.75 at pre-training to 8.74 ($p < .001$) after training. Increases were still significant after 12 months (8.44, $p < .001$). Modest, statistically insignificant changes in scores were observed on the therapeutic commitment scale (commitment to perform screening and brief intervention). A mean pre-training score of 6.94 increased to 7.04 ($p = .46$) after training and to 7.09 after 12 months ($p = .34$).

(3) Measures of Importance & Confidence in Performing SBI

Mean pre-training composite scores on the ten-point SBI importance scale were high (8.52). The composite mean increased significantly to 9.10 ($p < .001$) after training, however this increase was not sustained at 12 months (8.60, NS). Individually, all 10 importance items showed significant increases in mean scores between pre and post training. Only one item remained significantly higher at 12 months - the importance of giving the patient a brochure/manual.

Analyses of composite confidence scores showed significant increases over pre-training levels both immediately post-training (7.53 to 8.84; $p < .001$) and after 12 months (8.41; $p < .001$). All 10 individual confidence items showed significant increases between pre and post training. While there was some decline at the 12 month follow-up, the mean scores for all items were still significantly higher than pre-training levels.

All three global measures of confidence in performing SBI tasks showed significant increases immediately after training. The only increase which retained statistical significance after 12 months was confidence in their ability to help patients cut down or quit (see Table IV).

(4) Decisional Balance Measures

Composite scores were calculated by combining all seven positive items into a single “pros” factor and the seven negative items into a “cons” factor (see Table II for all 14 items). No significant changes were seen in the composite “pro” score (perceived positive factors which can influence clinicians in favor of performing SBI) between pre-training and post-training (3.97 to 4.08, NS) or at 12 months (3.86, NS). While there was no change in the “con” score between pre-training and post-training (2.11 to 2.12, NS), there was a significant decrease in the composite “con” score between pre-training and the 12 month follow-up (2.11 to 1.94, $p < .05$), indicating a decrease in the relative importance of perceived negative factors which could influence clinicians against performing SBI.

(5) Readiness to Perform Interventions for At-Risk Drinking: Stage of Change Measure

Using the scoring algorithm described in Table II, clinicians were assigned to one of four stages of change at all 3 time points (see results in Table V). The resulting stage of change variable at pre-training was cross-tabulated with the same variable at the 12-month follow-up to identify how clinicians progressed, or in some cases regressed, in their stage of change. A slight majority of clinicians maintained the same stage of change between pre-training and 12-month follow-up (53.3%) and about one third progressed to a higher stage of change. Only 13.3% reported a lower stage of change at 12-month follow-up. There was an overall increase in those endorsing the “maintenance” stage (47.7% pre-training, 69.7% after 12 months), indicating that for them SBI had become normative.

(6) Clinician self-report of interventions performed

At each time point, clinicians reported how many of their last 50 patients had been counseled to cut down or quit using alcohol. Responses were categorized into three groups: 0, 1–5, and 6 or more interventions. There were no significant changes in self-reported BIs over time. At all three time points, about one third of clinicians reported performing 6 or more interventions among their last 50 patients (35.6%, 35.6%, 33.0% respectively) while 6 to 10% reported performing no interventions. The largest percentage of respondents reports conducting one to five interventions among their last 50 patients. Comparisons of BI rates between the four clinics with EMRs and the four with paper-based records revealed no significant differences.

DISCUSSION

This study provides new knowledge of the impact of SBI training efforts and SBI systems interventions on clinicians in residency training settings. It is one of the first residency training studies to demonstrate an increase in clinician role security, a factor previously shown to correlate with clinician intervention rates (13,23). It is also one of the first studies to use TTM measures to evaluate residency clinicians' attitudes toward SBI and the impact of SBI training on these attitudes. Of further interest is the high level of both importance and confidence ascribed by clinicians to SBI at pre-training, a finding which differs from numerous previous studies reporting significant clinician reluctance to screen and advise patients about alcohol use (26–29). While reported levels of importance of performing SBI tasks did not increase, perhaps due to high pre-training levels, clinicians reported increased confidence in their ability to perform all 10 SBI-related tasks surveyed. Decisional balance analysis also found declines in the perceived importance of negative factors which sometimes discourage physicians from conducting SBI. Clinicians' "readiness" to perform SBI also improved considerably, as evidenced by progression across the stages of change by one-third of participants and the high percentage of participants (68%) who reported maintenance of SBI activities after one year, indicating that SBI had become normative for them.

Despite these positive changes, clinicians' therapeutic commitment only showed a transient increase which disappeared after 12 months, and self-reported BI rates did not increase. These findings are consistent with other studies which have found major challenges to increasing primary care clinicians' brief intervention rates despite investment of significant time and resources (13, 29–30). Residency systems issues appeared to complicate attempts at increasing intervention rates, as programming screening and intervention into EMRs proved problematic at most sites, nurses screened only 45% of patients and preceptors failed to reinforce the need for SBI for at-risk patients. Provision of preventive services has also been shown to be lower in patient populations with high levels of competing demands and high percentages of Medicaid patients (31–32). These characteristics were present in most of our residency clinics. The low level of intervention rates suggests that, for many participants, brief interventions remained limited to only the most obvious problem drinkers, who are often more resistant to intervention efforts and less likely to reduce their alcohol use. Such experiences could in fact serve to discourage novice clinicians from further SBI activities. This highlights the need for future efforts to include systems changes that strategically integrate SBI into EMRs while also reinforcing SBI compliance at multiple levels including nursing, where more consistent screening could prompt more resident interventions, and precepting, where faculty insistence on residents' performing BIs on all patients with positive screens could also increase BI rates. Creation of EMR fields for recording BIs could also provide a more objective method for tracking clinician BI rates.

This project also points toward two other important issues that may remain as obstacles to increasing SBI rates in primary care. One is the focus of primary care clinicians on treatment rather than prevention in primary care settings (28). Alcohol SBI has been found to be one of the most underutilized effective prevention interventions in primary care (3). Sustained increases in preventive services have been difficult to achieve in U.S. primary care clinics, although individual projects (33) have been successful using intensive interventions that were highly individualized to meet particular practice needs. Our physician trainees frequently questioned the need for doing prevention-focused BIs with patients who consumed alcohol in risky amounts with few negative consequences. Changing this attitude and behavior may require a major paradigm shift which is unlikely to result from brief SBI training. Emerging U.S. primary care models such as the patient-centered medical home are attempting to re-engineer primary care clinics to utilize primary care teams to provide

preventive services. Until preventive care becomes a higher priority in primary care practice, future SBI training efforts may continue to experience significant challenges.

Another issue that may explain physicians' hesitance to perform SBI after training is strain on the doctor-patient relationship created by physician-driven advice-oriented BIs with some patients. During trainings, several faculty members suggested they would prefer not to broach the sensitive issue of alcohol at an initial patient visit. Beich et al (34) reported that numerous Danish general practitioners with BI training found it difficult to establish rapport with patients with positive alcohol screens, noting that SBI interrupted the natural course of office visits and created strain in the doctor-patient relationship. Given the centrality of the doctor-patient relationship to primary care practice, this critical concern deserves further exploration. Future training efforts should explore clinicians' responses to use of alternative BI intervention methods such as motivational interviewing (24), which has been shown to strengthen the doctor-patient relationship while also facilitating patient behavior change and improving the efficiency of consultations (35).

One encouraging finding is that at all time points, 33–36% of clinicians reported performing more than five interventions in their last 50 patients. Similarly, Anderson et al found that 40% of clinicians trained in a multi-site SBI implementation study reported performing a higher percentage of BIs than their colleagues (10% of at-risk drinkers) (19). Future studies may benefit from exploration of the individual characteristics of these “high activity” clinicians. Additionally, previous studies have found that non-physicians can effectively perform SBI and may do so at higher rates than physicians (11). Future SBI trials may benefit by exploring effective ways of designing multi-disciplinary SBI teams which also utilize non-physicians to perform BI's. In such multi-disciplinary SBI teams, “high activity” physicians might be used to train others in BI and referral and serve as champions in implementing SBI systems in their practices, while other physicians might simply provide reinforcement and encouragement to patients following a visit with non-physicians, prescribe alcohol medications for dependent patients, or refer patients to higher levels of treatment. In practices which lack non-physician providers who can perform BIs, perhaps high activity clinicians could accept referrals from other clinicians in their practice who are more reluctant to perform SBI.

Findings of this study could be biased due to limited clinician participation rates and follow-up rates. However, participation and follow-up rates are similar to those reported by Anderson et al (13) in their WHO study of SBI implementation. Likewise, comparisons of completers and non-completers found no significant demographic differences and minimal differences on the various SBI measures. Future studies should explore methods for increasing clinician participation rates in translational SBI studies. Another limitation of this study is its reliance on self-report to measure physician attitudes and intervention behavior following training.

In conclusion, this program, which provided skills-based training in alcohol SBI and implemented SBI protocols in eight residency clinics, resulted in increases in physicians' role security regarding SBI, greater confidence in performing SBI tasks, and reduced importance of negative factors discouraging brief intervention; however clinicians reported no increase in the numbers of BIs performed. Future efforts should continue to explore methods for creating effective SBI systems as a part of comprehensive primary care prevention efforts and in identifying the optimal role for physicians in such systems.

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Table 1

Curriculum components, time allotment and teaching strategies

Curriculum Component	Time	Teaching strategies
1. Initial SBI seminar a. Epidemiology & medical impact; evidence base for interventions b. Steps of pre-screening & screening; office procedures c. Steps of Brief Intervention for patients with at-risk and problem use, outline of case for practice (case of patient drinking in at-risk manner) d. Brief intervention steps for patient with possible substance dependence and major consequences to drinking, referral options for treatment, outline of case for practice (patient with possible dependence) e. Diagnosis, coding and billing options; documentation of screening and intervention f. Questions and evaluation	3 hours total 40 minutes 20 minutes 60 minutes 50 minutes 5 minutes 5 minutes	a. Lecture b. Lecture, video of nurse asking pre-screen, nurses practiced pre-screen; residents & faculty practiced AUDIT scoring c. Lecture, video demo, dyads of residents and faculty practiced roles of physician and "patient"; "patient" provided feedback to physician d. Lecture, video demo, dyads practiced roles of physician and "patient" with possible dependence and multiple consequences to drinking; "patient" provided feedback to resident/faculty e. Lecture and discussion f. Evaluation forms completed
2. Three 1-hour booster sessions at 4 month intervals using Team-based learning on these topics: a. Harms of at-risk drinking b. Medical management of patient possibly dependent with his/her drinking c. Implementing SBI in your future practice	3.5 hours total 70 minutes 70 minutes 70 minutes	Each booster consisted of feedback on screening & intervention rates at each site, a quiz over previously covered material, the same quiz completed as a team (small group of 6-7 residents & faculty), large group review of answers, team prizes, team quiz of clinical case related to booster topic, large group review of quiz, team prizes, 15-minute lecture on booster topic, evaluation of session

Table II
Definitions and Assessment of Behavior Change Constructs for SBI for Alcohol

CONSTRUCT	DEFINITION	ASSESSMENT
<p>A. IMPORTANCE AND CONFIDENCE</p>	<p><i>Importance:</i> appraisal of the importance of each aspect of alcohol intervention counseling in assisting patients who drink. <i>Confidence:</i> appraisal of how confident you are that you could successfully perform each aspect of counseling for patients who drink.</p>	<p>10 - Point Rulers Using a ruler, each of the following 10 aspects of SBI for Alcohol is examined for both the perceived importance and the perceived confidence of performing:</p> <ol style="list-style-type: none"> 1 Asking a patient how much and how often they drink. 2 Classifying patients as at-risk, problem drinkers, or dependent drinkers based on the AUDIT score. 3 Using information about the patient's drinking habits to provide feedback. 4 Reviewing any previous alcohol-related problems. 5 Reviewing possible reasons for decreasing alcohol use. 6 Asking patients if they want to decrease their risk. 7 Providing advice regarding appropriate drinking limits. 8 Contracting with patient to cut back or accept referral. 9 Giving patient a brochure or manual. 10 Recommending a return visit to discuss patient progress in reducing alcohol use.
<p>B. DECISIONAL BALANCE:</p>	<p>Cognitive appraisal/evaluation of positives (<i>pros</i>) and negatives (<i>cons</i>) of a behavior and reasons to change/not change behavior</p>	<p>A 14-item, 5-point Likert scale Using response categories from "Not Important" to "Extremely Important", clinicians indicate the importance of the "<i>pros</i>" and the "<i>cons</i>" in making a decision to discuss alcohol use with each of their patients. <u><i>Pros:</i></u></p> <ul style="list-style-type: none"> • Discussing patients' alcohol use could help reduce risky drinking • Discussing their alcohol use could improve my patients' health. • Helping patients overcome problem drinking creates a stronger doctor patient relationship. • Discussing their alcohol use could improve my patients' work productivity • Discussing their alcohol use could improve patients' family and personal relationships. • Discussing patients' alcohol use with them could help reduce health care costs • Discussing alcohol use with my patients could prevent future health problems. <p><u><i>Cons:</i></u></p> <ul style="list-style-type: none"> • I will lose patients if I talk to them about their alcohol use. • I am too busy to have time to talk to patients about their alcohol use. • I prefer to diagnose and treat patient's primary health issues rather than give preventive advice, such as brief alcohol use interventions • I do not have adequate training to deal with patients who are at-risk drinkers.

CONSTRUCT	DEFINITION	ASSESSMENT
		<ul style="list-style-type: none"> • Discussing alcohol issues is uncomfortable for me. • I will upset my patients if I talk to them about their alcohol use • My talking with a patient about alcohol use is unlikely to make a difference in his/her drinking
<p>C. STAGES OF CHANGE</p> <p><i>Precontemplation</i> - individuals do not recognize a need to change; <i>Contemplation</i>- marked by growing concern and weighing of the risks and rewards of changing; <i>Preparation</i>-individuals make commitment to change and initiate plans; <i>Action</i>-steps taken to implement the plan and adopt the behavior; <i>Maintenance</i>- the new behavior becomes normative.</p>		<p><u>Algorithm</u></p> <ol style="list-style-type: none"> 1 Do you currently discuss alcohol consumption with each patient who drinks more than the NIAAA suggested limits for at-risk drinking? (Yes, No) 2 Do you intend to discuss alcohol consumption with each patient who drinks more than the NIAAA suggested limits for at-risk drinking in the future? (Yes, No) 3 Do you intend to discuss alcohol consumption with each patient who drinks more than the NIAAA suggested limits for at-risk drinking within the next 30 days? (Yes, No) 4 Have you been discussing alcohol consumption with each patient who drinks more than the NIAAA suggested limits for at-risk drinking for at least 6 months? (Yes, No) <p>1- No; 2 - No; 3 - No; 4 - No = <i>Precontemplation</i> 1- No; 2 - Yes; 3 - No; 4 - No = <i>Contemplation</i> 1- No; 2 - Yes; 3 - Yes; 4 - No = <i>Preparation</i> 1- Yes; 2 - Yes; 3 - Yes; 4 - No = <i>Action</i> 1- Yes; 2 - Yes; 3 - Yes; 4 - Yes = <i>Maintenance</i></p>

Table III

Demographic characteristics of residents and faculty (n=111)

	Residents (n=77)	Faculty (n=34)	All
Female	48.1%	41.2%	45.9%
Age in years (SD in parentheses)**	34.4 (6.6)	47.1 (8.4)	38.6 (7.2)
Race/Ethnicity [†]			
- White	37.8%	51.5%	42.1%
- African American	17.6%	27.3%	20.6%
- Asian	28.4%	15.2%	24.3%
- Hispanic	12.0%	8.8%	11.0%
- Other	16.3%	6.1%	13.0%

[†]Race/Ethnicity items are not mutually exclusive.

** p<.01

Table IV

Comparison of physicians' global confidence in performing specific SBI Tasks (n=111)

	Pre-training	Post-training	12 month follow-up
Ask patients about alcohol use	4.05	4.38 ***	4.21
Advise patients to cut down or quit	4.06	4.39 ***	4.29
Help patients cut down or quit	3.49	4.21 ***	3.89 **

** p<.01,

*** p<.001 (compared to pre-training scores)

Table V

Change in clinician trainees' stage of change pre-training to 12-month follow-up (N=105)

12-month Stage -	Precontemplation	Contemplation	Preparation	Action	Maintenance
Pre-training Stage					
Precontemplation	2	0	0	1	10
Contemplation	0	2	0	0	1
Preparation	3	0	8	4	13
Action	1	0	1	2	6
Maintenance	0	0	5	4	42
Summary					
	Regressors	Immotives	Progressors		
	14	56	35		
	13.3%	53.3%	33.3%		