

SBIRT Proficiency Checklist Validation Study

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Prepared for

**Substance Abuse and Mental Health Services Administration
(SAMHSA)**

By

Jan Pringle, PhD, Program Evaluation & Research Unit, University of Pittsburgh
Paul Seale, MD, Mercer University School of Medicine,
James Bray, PhD Department of Family and Community Medicine, Baylor College of Medicine

Program Evaluation and Research Unit (PERU)
University of Pittsburgh School of Pharmacy
5607 Baum Blvd
Pittsburgh, PA 15206

Executive Summary

I. Overview of Project

Screening, brief intervention, and referral to treatment (SBIRT) is shown to be effective in identifying, intervening, and making appropriate referrals for patients with drug and alcohol use disorders. However, physicians and medical residents often receive little or inadequate training for managing these disorders. Additionally, there currently exists no validated instrument for assessing physician or medical resident proficiency in the core competencies of SBIRT. During the June 2010 SBIRT Grantee Meeting, participants from Baylor College of Medicine, Mercer University School of Medicine, and the University of Pittsburgh School of Pharmacy, Program Evaluation and Research Unit (PERU), began informal discussion about the need for an SBIRT clinical skills checklist that is both valid and reliable for use with training and also for precepting medical professionals in a clinical setting. A formal Technical Assistance request to SAMHSA followed, which supported a meeting of interested parties prior to the November 2010 grantee meeting. This report is a culmination of the collective efforts between the members of the aforementioned institutions, known collectively as the Proficiency Checklist Workgroup (PCW).

II. Proficiency Checklist Validation

Two checklists, developed by the PCW, were validated for effectiveness in assessing medical professionals with performing SBIRT. Study subjects (preceptors) completed the long-form of the checklist while viewing video simulations of physicians performing SBIRT services with patients. Preceptors then completed the short-form checklist while precepting medical residents in a clinical setting. Research Triangle Institute (RTI) International performed statistical analyses of the results, using descriptive statistics, tests of inter-rater reliability, and tests for internal consistency and reliability.

III. Proficiency Checklist Validation Study Evaluation Survey

Preceptors completed a satisfaction survey with using the short-form proficiency checklists during clinical observation of medical residents engaged in SBIRT with patients.

IV. Conclusions

Utilizing long-form proficiency checklists in assessing SBIRT engagement with patients is favorable:

- Cronbach's Alpha analyses indicated very good internal consistency across all programs.
- Fleiss' Kappa analyses indicated moderate agreement across all programs.
- Fleiss' Kappa analyses within each program indicated moderate agreement for two programs and fair agreement for the third program.

These results suggest that the short-form proficiency checklist is a valid tool for assessing medical professionals in SBIRT engagement with patients in clinical settings. Furthermore, although there are areas for refinement, the satisfaction of preceptors with using the short-form checklist was high. Therefore, this shortened instrument appears to be a reasonable choice for assessing SBIRT training proficiency across programs that may have even different training approaches and SBIRT applications.

Respectfully,



Dr. Janice Pringle, Director
Program Evaluation and Research Unit (PERU)
University of Pittsburgh

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A. Introduction

The University of Pittsburgh School of Pharmacy, Program Evaluation and Research Unit (PERU), in collaboration with Baylor School of Medicine and Mercer University School of Medicine, conducted a two-phase project funded by Substance Abuse and Mental Health Services Administration (SAMHSA) to develop and validate instruments for assessing the proficiency of medical professionals in performing Screening, Brief Intervention, and Referral to Treatment (SBIRT) with patients. The first phase involved designating a panel of expert SBIRT professionals (Proficiency Checklist Workgroup) for developing proficiency checklists. Two proficiency checklists were developed by the PCW: a long-form proficiency checklist for use in precepting video simulations and a short-form for use with precepting medical residents in clinical settings. These instruments, known as SBIRT proficiency checklists, were utilized in the second phase of the project, a study to validate their effectiveness. This entailed Institutional Review Board (IRB) submission to all three sites, with the University of Pittsburgh serving as the coordinating center. The IRB approval letters are included in Appendix I and the coordinating center protocol accompanying the University of Pittsburgh IRB submission is included in Appendix II for this Proficiency Checklist Validation Study. The study results are summarized in this report.

B. Study Aim

The purpose of this collaborative effort between the University of Pittsburgh, Baylor School of Medicine, and Mercer University School of Medicine was to develop SBIRT proficiency checklists for use in the context of routine medical health professional training and evaluation.

AIM #1: Validate checklists for assessing the proficiency of medical health professionals in performing SBIRT with patients presenting with symptoms related to substance use disorders.

AIM #2: Evaluate the satisfaction of using the short-form proficiency checklist.

C. Methods

Checklists

Two SBIRT proficiency checklists, a short-form for clinical use (Appendix III) and a long-form for assessing standardized patient scenarios through video simulations (Appendix IV), were developed by the PCW. The PCW determined the core SBIRT elements across five categories: Screening (SC), Brief Intervention (BI), Referral to Treatment (RT), Follow-up (FU), and Motivational Interviewing (MI) spirit. Specific questions related to these categories were developed amongst the PCW members and integrated into the two proficiency checklists. These checklist questions contain eight elements, including parsimony, ease of use, pertinence, fairness, applicability, clarity, comprehensiveness, and concreteness in addition to an open-ended comment field for any comments. The short-form of the proficiency checklist was intended for precepting medical residents in a clinical setting while the long-form involved precepting physicians encountering patients in video simulations. There were six video simulations that were created by the PCW: two each from Baylor, Mercer, and PERU. These

video simulations covered three scenarios of patients presenting with substance use disorders, including two with alcohol misuse, two with drug misuse, and two with both alcohol and drug misuse.

Validation

The proficiency checklists were employed as part of a multi-site, IRB-approved study between Mercer University School of Medicine, Baylor School of Medicine, and the University of Pittsburgh. The University of Pittsburgh was the coordinating site for this study. For this study, the participating institutions identified 15 preceptors. These preceptors, all experts with SBIRT, were each affiliated with one of the aforementioned institutions. Their disciplines included medicine, psychiatry, psychology, and social work. The study began in January 2014 after preceptors received study materials. Study materials included both the long-form (video simulations) and short-form (clinical observation) proficiency checklists. In addition to these checklists, preceptors were each sent a proficiency checklist evaluation survey (Appendix V) to gauge their satisfaction with the short-form (clinical) proficiency checklist.

Preceptors began the study by first viewing the six video simulations. These video simulations were posted on a private SBIRT Workgroup page in a public forum. Here the preceptors viewed the SBIRT simulations while completing the long-form proficiency checklists. After this arm of the study was complete, the preceptors were instructed to observe medical residents engaged in SBIRT with a patient in a clinical setting. The preceptor utilized the short-form proficiency checklist for this clinical observation of SBIRT practice. Lastly, the preceptors were requested to complete the evaluation survey regarding their satisfaction in using the short-form proficiency checklist. The completed evaluation surveys and proficiency checklists were received by PERU through April 2014. Data from these completed study materials were input into tables by PERU and statistical analyses performed.

The inter-rater reliability (IRR) of the ratings of the preceptors was analyzed for six video representations of each component of SBIRT delivery: SC, BI, RT, FU, and MI. The preceptors (raters) each viewed the same videos allowing us to compare all their ratings simultaneously. Multiple preceptors required a Fleiss' Kappa. Likert ratings (1-5) for each component were reclassified as binary outcomes (0/1) to reflect the checklist version used in the field with medical residents. Specifically, a value of 0, 1 or 2 was recoded as 0 and a value of 4 or 5 was recoded as 1. In this way a 1 reflected a positive rating for the question. Fleiss' Kappa was estimated jointly for all questions, preceptors and all video subjects. We also present agreement by individual question and component with counts of positive ratings as an appendix. Finally, we conduct sensitivity analyses by recalculating kappas after removing a component, a preceptor or a video.

In an effort to look for agreement patterns among videos, questions, and raters, a summary table (Appendix VII) was created to display the 0/1 responses for individual questions within each video by each preceptor.

Additional analyses were performed to determine the preceptors' rater agreement within each institution: Baylor, Mercer, and the University of Pittsburgh. The same analytic strategy for calculating Kappas was utilized as described above with one exception. The calculation was a traditional kappa for the University of Pittsburgh as opposed to the Fleiss' kappa given that only two preceptors were available for this analysis.

In order to test for internal consistency and reliability, Cronbach's alpha calculations were performed within each institution and across all institutions for the ratings.

SBIRT Training Program Characterization

A questionnaire (Appendix VIII) was completed by each institution (Baylor, Mercer, and UPitt) to characterize that site's SBIRT training program. The information gathered was used to discern the similarities and differences amongst the training programs.

Feasibility Field Testing

The long-form of the proficiency checklist for use in preceptor viewing video simulations is lengthy. A lengthy checklist is not feasible during a clinical observation. Therefore, the long-form proficiency checklist was reduced to include fewer checklist questions in all core areas of SBIRT delivery. Question selectivity was decided between PCW members and based on reducing redundancy and increased parsimony by combining individual questions. For the two medical resident observations we did not calculate Kappa because each preceptor viewed unique residents. Instead, this phase demonstrated the feasibility of preceptors using their training in real world scenarios. All preceptors also provided systematic feedback concerning the training.

Checklist Evaluation Feedback from Preceptors

At the conclusion of the proficiency checklist implementation, preceptors were asked to answer seven evaluation questions and provide open-ended comments around the short-form proficiency checklist using the Proficiency Checklist Evaluation Survey (Appendix V). The seven questions were 7-point Likert scales from *Strongly Disagree* to *Strongly Agree* concerning the appropriateness and utility of the short-form proficiency checklist. Responses were tabulated and open-form comments summarized.

D. Results

Fourteen preceptors contributed data for analysis. Of these, 14 completed evaluation questions, 13 rated the six video scenarios, 12 completed background information on themselves and 11 were able to precept clinical residents. Table 1 describes the characteristics of the preceptors. A majority (67%) of the preceptors were male and all but one was white. The median age was 55 with a range of 43-64 years old. There were a variety of disciplines included, with 42% comprised of family medicine. Most of the preceptors, except one, had at least 15 years of experience in their area of specialization and a majority (64%) practiced in an urban setting.

Table 1. Characteristics of the Preceptors (N=12)			
	Number	Mean	Range
Female	4	-	-
Age	-	55	43-63
Race	-	-	-
Asian	1	-	-
White	11	-	-
Area of Specialization			
	Years in Area		
Family Medicine	5	26	15-35
General Internal Medicine	2	16	10-21
Psychology	1	36	-
Social Work	1	15	-
Marriage and Family Therapy	1	5	-
Psychiatry	1	33	-
Practice Setting			
Urban	7	-	-
Suburban	3	-	-
Rural	1	-	-
Non-US Country of Origin			
England	1	-	-
Pakistan	1	-	-

Overall agreement, described in Table 2, was moderately good with a kappa of 0.42 ($p < .000$). Sensitivity analyses yielded kappas in the moderate agreement range (above 0.40) with only the removal of RT dropping the agreement to 0.39 ($p < .000$). Based on Appendix VI and additional sensitivity analyses, there are several individuals, particularly with respect to BI who are responsible for a marginal decrease in agreement. By process of elimination there were no characteristics of these preceptors that might indicate why they differed from other preceptors more often (i.e., gender, specialization, age and experience, country of origin and race are not associated with lack of agreement).

Table 2: Fleiss' Kappa for Overall Agreement and Sensitivity Analyses			
	Kappa	Z score	p value
All	0.4157	45.56	0.000
Item Removed from analysis			
Component			
SC	0.403	39.925	0.000
BI	0.470	41.73	0.000
MI	0.421	39.32	0.000

RT	0.372	32.03	0.000
FU	0.439	45.85	0.000
Preceptor			
1	0.439	44.57	0.000
2	0.402	40.77	0.000
3	0.415	42.11	0.000
4	0.431	43.74	0.000
5	0.416	42.18	0.000
6	0.406	41.19	0.000
7	0.426	43.23	0.000
8	0.406	41.23	0.000
9	0.434	44.09	0.000
10	0.413	41.87	0.000
11	0.416	42.22	0.000
12	0.404	40.98	0.000
13	0.405	41.12	0.000
14	0.404	41.05	0.000
Video			
1	0.411	41.12	0.000
2	0.394	39.47	0.000
3	0.402	40.18	0.000
4	0.437	443.93	0.000
5	0.446	44.66	0.000
6	0.396	39.58	0.000
P-value is for test that agreement is greater than random chance (Kappa = 0).			

In an effort to distinguish the underlying causes for disagreement, responses amongst preceptors, checklist question groups, individual checklist questions, and videos, were summarized. This summary table (Appendix VII) provides a roadmap to identify specific instances of disagreement and patterns within these instances. Review of this summary table reveals that there is inconsistency with the brief intervention group questions. Subsequently, the first brief intervention question was further analyzed with responses displayed in Table 3.

Table 3. Brief Intervention Question 1 (BI 1) Analysis									
Preceptor	Video						In minority	Errs toward low rating	Total
	1	2	3	4	5	6			
1	0	0	0	0	1	0	2	2	4
2	0	1	1	0	1	1	0	0	0
3	0	1	1	1	1	1	0	0	0
4	0	1	1	0	1	0	0	0	0
5	0	0	1	0	0	1	2	1	3
6	0	1	1	1	1	1	0	0	0
7	0	1	0	0	0	1	1	1	2
8	0	1	1	1	1	0	0	0	0
9	0	0	0	1	0	1	3	0	3
10	0	1	1	0	1	0	0	0	0
11	0	1	1	1	1	1	0	0	0
12	0	1	0	1	1	0	0	0	0
13	0	1	1	1	0	0	1	0	1
14	0	0	1	0	0	0	2	2	4
Overall	0%	71%	71%	50%	64%	50%			

In this example, the pattern evident is that all minority choices were low ratings (i.e., zero). In the two video cases with 50% consistency (complete disagreement), four preceptors consistently selected zero (two of which were also prominent minority raters).

The second brief intervention question was also analyzed in detail, shown in Table 4.

Table 4. Brief Intervention Question 2 (BI 2) Analysis									
Preceptor	Video						In minority	Errs toward low rating	Total
	1	2	3	4	5	6			
1	0	1	1	1	1	0	1	0	1
2	1	1	0	0	0	0	1	1	2
3	1	1	1	1	1	1	2	0	2
4	1	1	1	1	1	1	2	0	2
5	0	1	1	1	0	0	0	0	0
6	0	1	1	0	0	1	1	0	1
7	1	1	0	0	1	0	2	0	2
8	0	1	1	0	0	0	0	2	2
9	1	1	0	0	0	0	1	1	2
10	0	1	0	0	1	0	2	2	4
11	0	0	1	1	0	0	1	1	2
12	1	1	0	1	0	0	1	0	1
13	1	1	1	0	0	0	0	0	0
14	0	1	0	1	0	0	1	1	2
Overall	50%	93%	57%	50%	36%	21%			

Based on the responses shown in Table 4, there is not a consistent pattern of erring toward zero (low rating) for BI 2.

The creation of 0/1 outcomes from the 1-5 rating does not cause this situation. If we constrain zero to be a rating of 1-2 and one as 3-5 then many of the zeros and ones simply switch but they do not change the overall consistency. In other words, in ambiguous situations, raters select the 2-3 range. BI 1 and BI 2 are the most ambiguous questions. The challenge with allowing finer rating scales (e.g., 1 to 5) is that it builds in artificial disagreement and depresses kappas. For example, differences between 4 and 5 increase disagreement even though they are consistent. Moreover, differences between say 1 and 3 (both of which might indicate a veritable failure of the provider) increase the disagreement metric. On the other hand, constraining to a 0/1 rating creates the endemic problem of raters in the 2-3 range "flipping" depending on where the 0/1 cutoff is made. One possible remedy for this is to impose a 0/1 rating on the raters (rather than transform the 1-5 later) as is done in the student implementation. Then depending on priorities, raters can be instructed to consistently err toward "strict" or "liberal" ratings to increase agreement. The priorities in this case depend on the setting. If the practitioners have the opportunity to receive feedback and remediation, then the "strict" downward rating may be more valuable; the practitioners will adjust their approach and improvement should be measurable.

Sensitivity analyses between the preceptors within each institution are displayed in Table 5. Sensitivity analyses yielded kappas in the moderate agreement range (above 0.40) for both Mercer and the University of Pittsburgh. The kappa for Baylor was lower at 0.340.

Table 5: Fleiss' Kappa for Overall Agreement and Sensitivity Analyses Within Each Institution			
	Kappa	Z score	p value
Baylor	0.340	9.57	0.000
Mercer	0.425	25.83	0.000
UPitt	0.487	5.69	0.000

Internal consistency using Cronbach's Alphas are displayed in Table 6. Moderate agreement was realized in all components of SBIRT with MI and Referral to Treatment (RT) having very good consistency (0.73 and 0.82, respectively) overall and by each institution. Combining all items of SBIRT together within each institution and across all three institutions also showed very good consistency (0.7968).

Table 6: Cronbach's Alphas for Internal Consistency and Reliability						
Institution	Component					
	SC	BI	MI	RT	FU	All Items Together
Baylor	0.3046	0.5122	0.9827	0.8566	*	0.8212
Mercer	0.5724	0.4413	0.7652	0.8145	0.4448	0.7950
UPitt	0.6250	0.6536	0.7338	0.7470	*	0.8278
All	0.4750	0.4846	0.7325	0.8250	0.3113	0.7968

*Unable to calculate Cronbach's Alphas.

Similarities and differences amongst the training programs were summarized based on responses to the SBIRT Training Program Characterization Questionnaire (Appendix VIII) completed by each of the three institutions. The details of each institution's responses are found in Appendix VIX and the main points are listed below:

- All three institutions agree that explanation of the rationale and epidemiology behind alcohol and drug misuse issues is essential to core SBIRT training.
- All three stress the importance of referral to treatment and motivational interviewing in addition to screening and brief intervention.
- Each institution uses an evidence-based curriculum and validated screening tools.
- The number of training hours provided to residents were between four hours and six hours for CORE training while one institution described this time allotment as 18 hours spread over three years.
- Either faculty or a master trainer with faculty leads resident training at all institutions. One curriculum uses an online learning module in addition to face-to-face interactive workshops while the other two provide training in a lecture-based setting.
- All three take advantage of guest experts to enhance training.
- All institutions ensure that trainers can impart CORE SBIRT knowledge by observing residents, using a tool for precepting SBIRT with patients, and providing feedback in either a clinical or educational setting.
- Knowledge acquisition is measured by quizzes and pre/post training surveys.
- One institution performs formal chart reviews to ensure SBIRT is documented for positive screens while another surveys residents on a monthly basis regarding their clinical use of SBIRT.
- All institutions measure skill proficiency by observation, two of which use a formal checklist to document such competency.
- One institution also provides an online virtual patient training session that provides a proficiency rating and record of trainee BI skills.

- Quality improvement is ensured by review of residents' post-training satisfaction surveys and feedback provided by residents and faculty.
- Meetings are held at each institution to discuss avenues for training program improvement.
- Changes in residents' attitudes regarding working with individuals that have substance use disorders is accomplished by pre/post-training surveys.
- Although all pre training surveys are completed prior to training, the post-training surveys are administered differently. One site administers the post-training survey at the conclusion of each training session, one administers it annually, and another administers it after the final training session.

The initial arm of the study involved using the long-form proficiency checklist while viewing SBIRT video simulations. Within this checklist are areas for preceptors to provide comments related to each core section (SC, BI, RT, FU, and MI). For some preceptors who had less agreement, they demonstrated the areas for improvement in the realms of subjectivity and strictness. Statements such as "Some discussion but no specific goal" and "after providing feedback, did not give patient time for reflection" are directly related to checklist rating strictness. Subjectivity of rating was evident in one preceptor's comment, "I also do not think feedback about risks associated with substance abuse was given well...The feedback was not direct and the examples were not given." Both strictness and subjectivity in rating is evident in preceptor statements, including "used a lot of closed-ended questions" and "Seemed to focus more on alcohol than screening scores would warrant." Additionally, preceptor non-agreement was influenced by factors unrelated to the checklist itself and include "This is really hard to hear."

The implementation phase of the study involved clinical observation of medical residents engaged in SBIRT with a patient. This included the preceptor utilizing the short-form proficiency checklist while observing the resident. The residents involved were predominately male between the ages of 26-48, with a median age of 34. Their racial designations were split: 25% white; 25% black; 40% Asian, Hispanic, or multiracial; and 10% did not answer. Most residents specialized in Family Medicine and had one to three years of experience. The clinical settings were mostly urban and suburban. The main outcome of the "field demonstration" was to demonstrate the feasibility, acceptability and potential utility of the short-form proficiency checklist. Preceptors successfully executed the checklist with their residents in real world settings and reported no challenges in providing a complete set of checklist ratings for all SBIRT components observed. In addition, as part of the checklist evaluation, preceptors used "open-ended" fields to provide comments and feedback for each checklist component. All preceptors took advantage of this option for at least one component. Their text comments corroborated

appropriate and easy use of the short-form proficiency checklist while also allowing flexibility for the preceptors to offer additional guidance to residents, particularly in nuanced or borderline rating cases.

As demonstrated by select quotes, the short-form proficiency checklist enabled the preceptors to provide validation and approbation to the residents. Comments such as “Would have liked to have seen more clear negotiations (more patient participation)” and “Did well to explain risks and benefits and worked open ended questions” show that the checklist was effective with preceptors internalizing the purpose of the clinical observations to point out strengths of the resident and areas for improvement.

Results of the short-form proficiency checklist evaluation survey (Table 7) reveal that preceptors, on average, are satisfied with this checklist. Agreement of survey statements was favorable and averaged between 5.8 and 6.5, on a Likert scale of 1 (strongly disagree) to 7 (strongly agree).

Table 7. Evaluation Feedback on Checklist from Preceptors (N=10)								
	Scale (1-7)							Average
	Strongly Disagree					Strongly Agree		
Statement	1	2	3	4	5	6	7	Average
The checklist was easy to use.		1			1	2	6	6.1
The checklist was easy to understand.		1			1	2	6	6.1
It is feasible to use this checklist in a clinical setting.		1			1	3	5	6
The checklist was appropriate for evaluating residents’ skills in SBIRT.		1			1	3	5	6
The checklist was comprehensive.				2	1	4	3	5.8
The checklist can likely be used across residency sites.		1		1		3	5	6
The checklist is concise.	1			1		3	5	5.8
The checklist is impartial and unbiased.				1		2	7	6.5

Responses to open-ended questions regarding evaluation of the short-form proficiency checklists provide recommendations for improvement of this instrument. For instance, two preceptors affirm the need for an “N/A” box in the RT section of the checklist since not all patients undergoing SBIRT with their practitioner are ready for this step. In addition, one of these preceptors further expressed that an “N/A” box is necessary for one statement regarding negotiating a treatment plan in the MI section of the checklist. Another preceptor provided ideas to enhance the proficiency checklist including a section assessing a patient’s readiness for

change, exploring connections between substance use and medical concerns, and adding a question regarding family history of substance use issues.

E. Discussion

The main objective is the validation of instruments (proficiency checklists) for assessing the proficiency of medical health professionals in performing SBIRT with patients presenting with symptoms related to substance use disorders. The PCW, which included representatives from the Baylor School of Medicine, Mercer University School of Medicine, and the University of Pittsburgh School of Pharmacy Program Evaluation and Research Unit (PERU) conducted a two-phase project funded by Substance Abuse and Mental Health Services Administration (SAMHSA) to develop and validate SBIRT proficiency checklists. These proficiency checklists were developed in a series of PCW sessions, which were used for the proficiency checklist validation study.

Fourteen experienced SBIRT professionals from the above institutions participated in this study. This study included two arms, precepting video simulations of SBIRT (long-form proficiency checklist) and precepting clinical observations with residents (short-form proficiency checklist). For the latter, 28 residents were observed clinically in performing SBIRT with patients presenting with substance use disorders. Evaluation surveys soliciting feedback and satisfaction with using the checklists were also completed by the preceptors. Study materials were submitted to PERU and statistical analyses were performed.

Statistical analysis of Fleiss' Kappa across all three institutions shows moderate agreement and therefore justifies implementation of these checklists for assessing SBIRT proficiency. Fleiss' Kappa analysis within each institution showed moderate agreement for the University of Pittsburgh and Mercer, and lower agreement for Baylor. This suggests that within each institution, there is the same extent of agreement as compared to across all three institutions. An additional inspection between preceptors, checklist questions, and videos show that there are no consistent patterns with respect to disagreement. However, allowing for only a 1/0 rating scale and also providing training on how to complete checklists with strict instruction on imposing a 1/0 scale may improve agreement and should be considered.

Statistical analysis of Cronbach's Alphas within each institution showed moderate to high internal consistency and reliability for all SBIRT components. The Cronbach's Alphas analyzed across all checklist questions within each institution were also highly favorable as was the overall alpha for all questions across all institutions. This overall alpha supports the conclusion above for overall Fleiss' Kappa, justifying implementation of these checklists for assessing SBIRT proficiency.

Characterization of each institution's SBIRT training program revealed similarities in the purpose, content, and quality assurance techniques of the training programs, using a variety of approaches.

The comments provided from preceptors provide an opportunity to improve these checklists. Among preceptors with less agreement, their comments often revealed an accurate understanding of the component and rating principles but that they chose to err on either a

liberal or conservative judgment, for example, “used double sided reflections.” Methods for refining the checklists to decrease ambiguity include inclusion of more direct instruction for each checklist core section and providing a training session in effective use of these checklists.

Although the long-form proficiency checklist was modified to a short-form proficiency checklist for practical use in a clinical setting, the core SBIRT elements are reflected in this short-form proficiency checklist. This provides for more efficient use of time with the patient while still assessing SBIRT effectiveness.

The feasibility and utility of the short-form proficiency checklist was demonstrated through its successful implementation by the preceptors in real-world clinical settings. Not only was this checklist completed without any challenges but it did not hinder (and may even have facilitated) appropriate amounts of clinical feedback from the preceptors to the residents.

Favorable satisfaction was expressed with using the short-form proficiency checklist. This satisfaction was evident through qualitative analysis of evaluation survey results as well as open-ended comments solicited on the survey. One area for improvement includes addition of a “Not Applicable” choice for checklist questions. More importantly, one preceptor expressed interest in adding questions in the checklist for assessing a patient’s readiness for change, exploring connections between substance use and medical concerns, and soliciting information regarding family substance use history. These additions, which will further refine the effectiveness of the short-form proficiency checklist, should be considered.

Appendix I

June 12, 2013



JAMES H BRAY
BAYLOR COLLEGE OF MEDICINE
FAMILY & COMMUNITY MEDICINE

Baylor College of Medicine
Office of Research
One Baylor Plaza, 600D
Houston, Texas 77030
Phone: (713) 798-6970
Fax: (713) 798-6990
Email: irb@bcm.tmc.edu

H-33022 - SBIRT PROFICIENCY CHECKLIST VALIDATION STUDY

APPROVAL VALID FROM 6/12/2013 TO 5/14/2014

Dear Dr. BRAY

The Institutional Review Board for Human Subject Research for Baylor College of Medicine and Affiliated Hospitals (BCM IRB) is pleased to inform you that the research protocol named above was approved.

The study may not continue after the approval period without additional IRB review and approval for continuation. You will receive an email renewal reminder notice prior to study expiration; however, it is your responsibility to assure that this study is not conducted beyond the expiration date.

Please be aware that only IRB-approved informed consent forms may be used when written informed consent is required.

Any changes in study or informed consent procedure must receive review and approval prior to implementation unless the change is necessary for the safety of subjects. In addition, you must inform the IRB of adverse events encountered during the study or of any new and significant information that may impact a research participants' safety or willingness to continue in your study.

The BCM IRB is organized, operates, and is registered with the United States Office for Human Research Protections according to the regulations codified in the United States Code of Federal Regulations at 45 CFR 46 and 21 CFR 56. The BCM IRB operates under the BCM Federal Wide Assurance No. 00000286, as well as those of hospitals and institutions affiliated with the College.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "V. R. Sutton".

VERNON R SUTTON, M.D., B.S.

Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals





University of Pittsburgh

Institutional Review Board

3500 Fifth Avenue
Pittsburgh, PA 15213
(412) 383-1480
(412) 383-1508 (fax)
<http://www.irb.pitt.edu>

Memorandum

To: Dr. Janice Pringle
From: Sue Beers, PhD , Vice Chair
Date: 11/18/2013
IRB#: [PRO13070497](#)
Subject: Proficiency Checklist Validation Study

The University of Pittsburgh Institutional Review Board reviewed and approved the above referenced study by the expedited review procedure authorized under 45 CFR 46.110 and 21 CFR 56.110. Your research study was approved under:
45 CFR 46.110.(7)

The risk level designation is Minimal Risk.

Approval Date: 11/18/2013
Expiration Date: 11/17/2014

For studies being conducted in UPMC facilities, no clinical activities can be undertaken by investigators until they have received approval from the UPMC Fiscal Review Office.

Please note that it is the investigator’s responsibility to report to the IRB any unanticipated problems involving risks to subjects or others [see 45 CFR 46.103(b)(5) and 21 CFR 56.108(b)]. Refer to the IRB Policy and Procedure Manual regarding the reporting requirements for unanticipated problems which include, but are not limited to, adverse events. If you have any questions about this process, please contact the Adverse Events Coordinator at 412-383-1480.

The protocol and consent forms, along with a brief progress report must be resubmitted at least one month prior to the renewal date noted above as required by FWA00006790 (University of Pittsburgh), FWA00006735 (University of Pittsburgh Medical Center), FWA00000600 (Children’s Hospital of Pittsburgh), FWA00003567 (Magee-Womens Health Corporation), FWA00003338 (University of Pittsburgh Medical Center Cancer Institute).

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.

MERCER
UNIVERSITY
*Institutional Review Board
for Research Involving Human Subjects*

05-Apr-2013

Dr. J. Paul Seale
Mercer University
Family Medicine
Department of Family Medicine
Macon, GA 31206

RE: Proficiency Checklist Validation Study (H1304119)

Dear Dr. Seale:

Your application entitled: Proficiency Checklist Validation Study (H1304119) was reviewed by this Institutional Review Board for Human Subjects Research in accordance with Federal Regulations [21 CFR 56.110\(b\)](#) and [45 CFR 46.110\(b\)](#) (for expedited review) and was approved under Category 6, 7 per [63 FR 60364](#).

Your application was approved for one year of study on 05-Apr-2013. The protocol expires 05-Apr-2014. If the study continues beyond one year, it must be re-evaluated by the IRB Committee.

Item(s) Approved:
new application

Please complete the survey for the IRB and the Office of Research Compliance. To access the survey, click on the following link: <http://https://www.surveymonkey.com/s/K7CTT8R>

Respectfully,



Ava Chambliss-Richardson, M.ED., CIP, CIM
Member
Intuitional Review Board
Mercer University IRB & Office of Research Compliance
Phone (478) 301-4101
Fax (478) 301-2329
ORC_Mercer@Mercer.Edu

Mercer University has adopted, and agrees to conduct its clinical research studies in accordance with, the International Conference on Harmonization's (ICH) Guidelines for Good Clinical Practice.

1508 College Street • Macon, Georgia 31207-0003
(478) 301-4101 • FAX (478) 301-2329

Appendix II

PROFICIENCY CHECKLIST VALIDATION STUDY

October 17, 2013

Previous Iterations

The Phase II protocol was originally established and distributed for review in April, 2011. A revised protocol representing changes made via collaboration and discussion following a PCW call on March 23, 2012 was distributed in May 2012. This iteration reflects changes and discussion from the PCW call on May 31, 2012.

Proficiency Checklist Workgroup

Phase II Validation Protocol

Overview of Project:

The proposed validation method is a mixed-method evaluation, loosely based on a model used by Martz (2010). The mixed method evaluation includes an 1) expert panel review and rating of SBIRT core elements and 2) a two-pronged field study using instruments developed following the expert panel review. The expert panel review (Phase I) was completed in late 2011/early 2012, with consensus on core components and the development of two separate checklists, one for use in a standardized patient scenario and one in a clinical setting (actual patient encounter).

Phase II Protocol (Field Study):

The second phase of the study will be a two-pronged field study with end users of the proficiency checklists. Field users will likely be resident preceptors and/or other supervisory staff in medical residency settings (in general, those who evaluate medical residents for competency in respective clinical areas). As such, it is critical that SBIRT training/curricula are being implemented to reliably evaluate the second phase of the study. Therefore, we are proposing that the three participating sites for this phase include Baylor, Mercer, and Pitt (excluding those personnel who are involved with the Core Checklist Team).

A. Recruitment

The Core Checklist Team will nominate precepting physicians or other personnel responsible for evaluating resident progress from their respective sites (Baylor, Mercer, Pitt). A formal invitation to participate will be sent.

B. Target enrollment

We propose that the target enrollment for this phase be 18 participants (6 from each of the three sites). The inclusion criteria for this phase of the study will be:

1. Participate as teaching faculty/preceptor in a residency training program.
2. Have at least 1 year of experience in teaching SBIRT.
3. Have at least 8 hours of training in SBIRT teaching and practice.

C. Consent

Given the nature of this phase of the study (minimal harm, no biologics), it is likely that the study will meet the conditions for exempt review, as well as a waiver of signed consent. A prepared “informational script” may serve as the informed consent document. (This will have to be approved through IRB).

D. Incentives

The methodology workgroup discussed the possibility of selective incentivization, but agreed that the IRB of record would likely find selective incentivization inappropriate. Previously, we recommend incentivizing all potential participants or none. We will have to determine if incentives will be allowed/provided.

E. Scope of Involvement

The same preceptors/resident evaluators will participate in both the Clinical (Short Form) and Standardized Patient (Long Form) validations. For the Clinical (Short Form) validation, preceptors/resident evaluators will conduct two (2) evaluations using the checklist during observed encounters with residents performing an SBIRT clinical activity and then complete a brief survey after the second observed encounter. For the Standardized Patient (Long Form) validation, preceptors/resident evaluators will observe six (6) videotaped encounters in which SBIRT activities are provided to a) a simulated patient with alcohol use problems (3 videos) and b) a simulated patient with substance abuse problems (3 videos). Thus there will be a total of eight (8) unique observations per participant.

In terms of study implementation, the Standardized Patient (Long Form) validation will occur prior to the Clinical (Short Form) validation.

A. Long Form Evaluation (Standardized Patient Scenario)

For the Long Form evaluation, we propose that precepting physicians/resident evaluators view six (6) videotaped SBIRT standardized patient scenarios (three [3] where the patient presents with alcohol related issues and three [3] where a patient presents with drug-related issues). Precepting physicians/resident evaluators will use the long form checklist to rate the video-taped encounter.

That brief interventions are typically between 3-5 minutes, we estimate that the total time burden for this arm will be approximately 18-30 minutes.

Data analysis will include tests of inter-rater reliability as well as other appropriate statistics.

B. Short Form Evaluation (Clinical Setting)

For this arm of the second phase, we have proposed that each participating precepting physician/resident evaluator evaluate two resident physicians in a clinical setting. The rationale for direct observation by a preceptor/resident evaluator instead of verbal report by a resident to a

preceptor is based on ACGME standards. In this setting, the precepting physician/resident evaluator will evaluate the resident physician using the Short Form developed by the Core Checklist Team. After completing second resident evaluation, the precepting physician will also complete a brief survey to evaluate the effectiveness of the checklist in a clinical setting. The Short Form Evaluation Survey (SFES) is based on Martz' (2010) Critical Feedback Survey, but contains only 8 elements:

- Parsimony
- Ease of Use
- Pertinence
- Fairness
- Applicability
- Clarity
- Comprehensiveness
- Concreteness

There will also be an open-ended comment field for any comments regarding the checklist. This survey (SFES) is included in the Appendix.

Given that clinical encounters, specifically brief interventions, typically last between 3-5 minutes, we estimate that the total time of resident evaluation will be no more than 10 minutes, with the additional survey burden of 5-7 minutes, for a total burden of no more than 20 minutes.

Data analysis will include the use of descriptive statistics and tests of significance.

References:

Martz W (2010). Validating an evaluation checklist using a mixed method design. *Evaluation and Program Planning*, 33, 215-222.

Proficiency Checklist- Short Form Evaluation

Section A: Socio-demographic Questions

1. Gender Female Male

2. Age (years) _____

3. Race (please select one)

- American Indian/Alaska Native Asian
- Black or African American Native Hawaiian/Other Pacific Islander
- White Biracial/Multiracial

4. Ethnicity Hispanic/Latino Not Hispanic/Latino

5. Please select your area of specialization:

- Emergency Medicine Family Medicine General Internal Medicine
- Obstetrics/Gynecology Pediatrics Other (please specify below)

Other: _____

6. Approximately how many years have you been practicing in your area of specialization?

_____ Years

7. What best describes your primary practice setting? Urban Suburban Rural

Section B: Checklist Items

You have used the Short Form Proficiency Checklist to evaluate residents for SBIRT skill in a live clinical setting. Based on your use of the checklist, please rate the extent to which you agree with the following statements.

	Strongly Agree						Strongly Disagree
The checklist was easy to use	<input type="radio"/>						
The checklist was easy to understand	<input type="radio"/>						
It is feasible to use this checklist in a clinical setting	<input type="radio"/>						
The checklist was appropriate for evaluating residents skills in SBIRT	<input type="radio"/>						
The checklist was comprehensive	<input type="radio"/>						
The checklist can likely be used across residency sites	<input type="radio"/>						
The checklist is concise	<input type="radio"/>						
The checklist is impartial and unbiased	<input type="radio"/>						

Please provide any comments regarding the use of the proficiency checklist here: (Open Text)

Thank you for completing this survey!

Appendix III

SBIRT Proficiency Checklist- Clinical Version

Screening (3 items)	Present	Not Present
The practitioner accurately assesses quantity & frequency of alcohol and/or drug use.	<input type="checkbox"/>	<input type="checkbox"/>
Practitioner accurately identifies the patient's level of risk related to their alcohol or other drug use using an appropriate evidence based screening instrument.	<input type="checkbox"/>	<input type="checkbox"/>
Practitioner assesses possible consequences of the patient's behavior, such as physical, psychosocial and other consequences.	<input type="checkbox"/>	<input type="checkbox"/>
Comments		

Brief Intervention (4 items)	Present	Not Present
Practitioner asks permission to provide feedback about the patient's substance use.	<input type="checkbox"/>	<input type="checkbox"/>
Practitioner uses reflection and/or open-ended questions to allow patient to react to screening result.	<input type="checkbox"/>	<input type="checkbox"/>
Practitioner provides feedback about the risks associated with patient's substance use behavior.	<input type="checkbox"/>	<input type="checkbox"/>
Practitioner negotiates a goal with the patient based on steps he/she is willing to take.	<input type="checkbox"/>	<input type="checkbox"/>
Comments		

Referral to Treatment (2 items)	Present	Not Present
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Practitioner recognizes the patient’s need for substance treatment based on their screening score and/or medical/behavioral factors.

Practitioner suggests the use of specific community and specialty resources.

Comments

Follow-Up (1 item)	Present	Not Present
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Practitioner arranges appropriate follow-up (MD follow-up, referral to treatment, counseling, medication, etc.)

Comments

Motivational Interviewing Spirit (3 items)	Present	Not Present
--	---------	-------------

Practitioner summarizes patient’s stated reasons for change.

Practitioner negotiates a treatment plan in a collaborative manner.

Practitioner affirms the patient’s strengths, ideas &/or successes

Comments

Total Items (13)

Appendix IV

Screening (4 items)	Not Met					Met
Practitioner correctly interprets the screening results.	1	2	3	4	5	
Practitioner accurately assesses quantity and frequency of alcohol and/or drug use.	1	2	3	4	5	
Practitioner accurately identifies the patient's level of risk related to their alcohol or other drug use using an appropriate evidence-based screening instrument.	1	2	3	4	5	
Practitioner assesses possible consequences of the patient's behavior, such as physical, psychosocial and other consequences.	1	2	3	4	5	

Comments

Brief Intervention (5 items)	Not Met	2	3	4	Met
Practitioner asks permission to provide feedback about the patient's substance use.	1	2	3	4	5
Practitioner uses reflection and/or open-ended questions to allow patient to react to screening result.	1	2	3	4	5
Practitioner negotiates a goal with the patient based on steps he/she is willing to take.	1	2	3	4	5
Practitioner informs the patient of healthy guidelines relevant to his/her sex and age group.	1	2	3	4	5
Practitioner provides feedback about risks associated with the patient's substance use behavior.	1	2	3	4	5

Comments

Referral to Treatment (5 items)	Not Met				Met
Practitioner suggests the use of specific community and specialty resources.	1	2	3	4	5
Practitioner attempts to negotiate agreement for treatment with the patient.	1	2	3	4	5
Practitioner presents treatment alternatives in an MI consistent way.	1	2	3	4	5
Practitioner addresses any concerns about the treatment referral.	1	2	3	4	5
Practitioner recognizes the patient's need for substance use treatment based on their screening score and/or medical/behavioral factors.	1	2	3	4	5

Comments

Follow-Up (2 items)	Not Met				Met
Practitioner arranges appropriate follow-up (MD follow-up, referral to treatment, counseling, medication, etc.).	1	2	3	4	5
Practitioner ends with a positive statement.	1	2	3	4	5

Comments

Motivational Interviewing Spirit (6 items)	Not Met				Met
Practitioner solicits from patient his/her own reason(s) to achieve the target behavior.	1	2	3	4	5
Practitioner summarizes patient's stated reasons for change.	1	2	3	4	5
Practitioner always treats the patient with respect.	1	2	3	4	5
Practitioner negotiates a treatment plan in a collaborative manner.	1	2	3	4	5
Practitioner affirms the patient's strengths, ideas &/or successes.	1	2	3	4	5
Practitioner talks less than the patient.	1	2	3	4	5

Comments

Total Items (22)

Appendix V

You have used the Short Form Proficiency Checklist to evaluate residents for SBIRT skill in a live clinical setting. Based on your use of the checklist, please rate the extent to which you agree with the following statements.

	Strongly Agree					Strongly Disagree	
The checklist was easy to use	<input type="radio"/>						
The checklist was easy to understand	<input type="radio"/>						
It is feasible to use this checklist in a clinical setting	<input type="radio"/>						
The checklist was appropriate for evaluating residents skills in SBIRT	<input type="radio"/>						
The checklist was comprehensive	<input type="radio"/>						
The checklist can likely be used across residency sites	<input type="radio"/>						
The checklist is concise	<input type="radio"/>						
The checklist is impartial and unbiased	<input type="radio"/>						

Please provide any comments regarding the use of the proficiency checklist here: (Open Text)

Appendix VI

Table VI. Number of Affirmative Ratings for Video Checklist (Long-Form Proficiency Checklist)								
			Video					
SBIRT Component	Q#		1	2	3	4	5	6
Screen	1		7	11	13	8	12	12
	2		8	13	11	7	13	12
	3		3	11	13	9	13	12
	4		8	12	7	12	12	1
BI	1		0	10	10	6	9	6
	2		6	12	8	7	5	3
	3		12	12	13	6	5	5
	4		1	4	13	3	1	7
	5		1	9	10	12	9	1
MI	1		4	10	12	12	10	3
	2		4	10	12	12	9	2
	3		13	13	12	12	12	11
	4		11	13	11	6	6	2
	5		8	8	11	1	5	0
	6		8	10	5	2	2	0
RT	1		0	0	0	11	6	0
	2		1	1	1	13	6	3
	3		0	0	1	6	4	1
	4		0	0	1	4	2	0
	5		1	1	1	13	7	1
FU	1		2	12	7	9	8	11
	2		10	11	9	8	10	6

Appendix VII

		Screening Section Questions					Brief Intervention Section Questions					
Preceptor ID	Video	aadscq1p	aadscq2p	aadscq3p	aadscq4p	# Closer to 50% (Out of	aadbicq1p	aadbicq2p	aadbicq3p	aadbicq4p	aadbicq5p	# Closer to 50% (Out of
1	1	1	0	0	0		0	0	1	1	0	
2	1	1	1	0	1		0	1	1	0	0	
3	1	0	1	0	0		0	1	1	0	0	
4	1	1	1	1	1		0	1	1	0	1	
5	1	0	0	1	0		0	0	1	0	0	
6	1	1	1	0	1		0	0	1	0	0	
7	1	0	1	0	1		0	1	1	0	0	
8	1	0	1	0	1		0	0	1	0	0	
9	1	1	1	0	1		0	1	1	0	1	
10	1	0	0	0	0		0	0	0	0	0	
11	1	0	0	0	0		0	0	1	0	0	
12	1	1	1	0	1		0	1	1	0	0	
13	1	1	0	1	1		0	1	1	0	0	
14	1	1	1	0	1		0	0	1	0	0	
%Agreement		57%	64%	21%	64%	3	0%	50%	93%	7%	14%	1
1	2	1	1	1	0		0	1	1	0	1	
2	2	1	1	1	1		1	1	1	0	0	
3	2	0	1	0	1		1	1	1	0	0	
4	2	1	1	1	1		1	1	1	0	1	
5	2	1	1	1	1		0	1	1	0	1	
6	2	1	1	1	1		1	1	1	0	0	
7	2	1	1	1	1		1	1	1	0	1	
8	2	1	1	1	1		1	1	1	0	0	
9	2	1	1	0	1		0	1	1	1	1	
10	2	1	1	1	1		1	1	1	1	1	
11	2	0	1	0	1		1	0	1	1	1	
12	2	1	1	1	1		1	1	1	1	1	
13	2	1	1	1	1		1	1	1	0	1	
14	2	1	1	1	1		0	1	0	1	1	
		86%	100%	79%	93%	0	71%	93%	93%	36%	71%	3
1	3	1	1	1	1		0	1	1	1	0	
2	3	1	1	1	0		1	0	1	1	0	
3	3	1	1	1	1		1	1	1	1	1	
4	3	1	1	1	1		1	1	1	1	1	
5	3	1	1	1	1		1	1	1	1	1	

		Screening Section Questions					Brief Intervention Section Questions					
Preceptor ID	Video	aadscq1p	aadscq2p	aadscq3p	aadscq4p	# Closer to 50% (Out of	aadbicq1p	aadbicq2p	aadbicq3p	aadbicq4p	aadbicq5p	# Closer to 50% (Out of
6	3	1	1	1	0		1	1	1	1	0	
7	3	1	1	1	0		0	0	1	1	1	
8	3	1	1	1	1		1	1	1	1	1	
9	3	1	1	1	1		0	0	1	1	1	
10	3	1	0	1	0		1	0	1	1	1	
11	3	1	1	1	1		1	1	1	1	1	
12	3	1	1	1	0		0	0	1	1	1	
13	3	1	0	1	0		1	1	1	1	1	
14	3	1	1	1	1		1	0	1	1	1	
		100%	86%	100%	57%	1	71%	57%	100%	100%	79%	2
1	4	1	0	1	1		0	1	1	0	0	
2	4	0	0	0	1		0	0	0	1	1	
3	4	0	1	1	1		1	1	0	0	1	
4	4	1	1	1	1		0	1	1	0	1	
5	4	1	1	1	1		0	1	0	0	1	
6	4	1	0	1	1		1	0	1	0	1	
7	4	0	1	0	1		0	0	0	0	1	
8	4	0	0	0	0		1	0	1	0	1	
9	4	1	0	1	1		1	0	0	1	1	
10	4	1	1	1	1		0	0	1	0	1	
11	4	1	1	1	1		1	1	0	1	1	
12	4	0	0	1	1		1	1	0	0	1	
13	4	1	0	0	1		1	0	0	0	1	
14	4	1	1	1	1		0	1	1	1	1	
		64%	50%	71%	93%	3	50%	50%	43%	29%	93%	4
1	5	1	1	1	1		1	1	1	1	1	
2	5	0	1	1	1		1	0	1	0	1	
3	5	1	1	1	1		1	1	1	0	1	
4	5	1	1	1	1		1	1	1	0	1	
5	5	1	1	1	0		0	0	0	0	1	
6	5	1	1	1	1		1	0	0	0	0	
7	5	1	1	1	1		0	1	1	0	1	
8	5	1	1	1	1		1	0	0	0	1	
9	5	1	1	0	1		0	0	0	0	1	
10	5	1	1	1	1		1	1	0	0	0	

		Screening Section Questions					Brief Intervention Section Questions					
Preceptor ID	Video	aadscq1p	aadscq2p	aadscq3p	aadscq4p	# Closer to 50% (Out of	aadbicq1p	aadbicq2p	aadbicq3p	aadbicq4p	aadbicq5p	# Closer to 50% (Out of
11	5	1	1	1	1		1	0	0	0	0	
12	5	1	1	1	1		1	0	0	0	1	
13	5	1	1	1	1		0	0	0	0	0	
14	5	1	1	1	1		0	0	0	0	1	
		93%	100%	93%	93%	0	64%	36%	36%	7%	71%	4
1	6	0	1	1	0		0	0	0	1	0	
2	6	1	1	1	0		1	0	0	0	0	
3	6	1	1	1	0		1	1	1	1	1	
4	6	1	1	1	0		0	1	1	1	0	
5	6	1	1	1	1		1	0	1	0	0	
6	6	1	1	1	0		1	1	1	1	0	
7	6	1	1	1	0		1	0	0	1	0	
8	6	1	1	0	0		0	0	0	0	0	
9	6	1	1	1	0		1	0	1	1	0	
10	6	1	1	1	0		0	0	0	0	0	
11	6	1	0	1	0		1	0	1	0	0	
12	6	1	1	1	0		0	0	0	1	0	
13	6	1	1	1	0		0	0	0	1	0	
14	6	1	1	1	0		0	0	0	0	0	
		93%	93%	93%	7%	0	50%	21%	43%	57%	7%	3
Number not close to 50% out of 6 Videos		2	2	1	2		5	4	3	3	2	

		Motivational Interviewing Section Questions							Referral to Treatment Section Questions					
Preceptor ID	Video	aadmiq1p	aadmiq2p	aadmiq3p	aadmiq4p	aadmiq5p	aadmiq6p	# Closer to 50% (Out of 6)	aadrtaq1p	aadrtaq2p	aadrtaq3p	aadrtaq4p	aadrtaq5p	# Closer to 50% (Out of 5)
1	1	1	0	1	0	1	1		0	0	0	0	0	
2	1	0	0	1	1	1	1		0	0	0	0	0	
3	1	1	1	1	1	1	0		0	0	0	0	0	
4	1	1	1	1	1	1	1		0	1	0	0	1	
5	1	0	0	1	1	0	0		0	0	0	0	0	
6	1	0	0	1	0	0	0		0	0	0	0	0	
7	1	0	0	1	1	0	0		0	0	0	0	0	
8	1	0	0	1	1	1	1		0	0	0	0	0	
9	1	1	1	1	1	0	0		1	1	0	0	0	
10	1	0	0	1	1	1	0		0	0	0	0	0	
11	1	0	0	1	1	0	1		0	0	0	0	0	
12	1	1	0	1	1	0	1		0	0	0	0	0	
13	1	0	1	1	1	1	1		0	0	0	0	0	
14	1	0	1	1	1	1	1		0	0	0	0	0	
%Agreement		36%	36%	100%	86%	57%	57%	4	7%	14%	0%	0%	7%	0
1	2	0	0	1	1	1	0		0	0	0	0	0	
2	2	1	1	1	1	1	1		0	0	0	0	0	
3	2	1	1	1	1	0	1		0	0	0	0	0	
4	2	1	1	1	1	1	1		0	1	0	0	1	
5	2	1	1	1	1	1	1		0	0	0	0	0	
6	2	1	1	1	1	0	1		0	0	0	0	0	
7	2	1	1	1	1	0	0		0	0	0	0	0	
8	2	0	0	1	1	0	1		0	0	0	0	0	
9	2	1	1	1	1	0	0		0	1	0	0	1	
10	2	1	1	1	1	1	1		0	0	0	0	0	
11	2	0	0	1	1	0	0		0	0	0	0	0	
12	2	1	1	1	1	1	1		0	0	0	0	0	
13	2	1	1	1	1	1	1		0	0	0	0	0	
14	2	1	1	1	1	1	1		0	0	0	0	0	
		79%	79%	100%	100%	57%	71%	2	0%	14%	0%	0%	14%	0
1	3	1	1	1	0	1	0		0	0	0	0	1	
2	3	1	1	1	1	1	0		0	0	0	0	0	
3	3	1	1	1	1	1	1		0	0	0	0	0	
4	3	1	1	1	1	1	0		0	1	1	1	0	
5	3	1	1	1	1	1	1		0	0	0	0	0	

		Motivational Interviewing Section Questions							Referral to Treatment Section Questions					
Preceptor ID	Video	aadmiq1p	aadmiq2p	aadmiq3p	aadmiq4p	aadmiq5p	aadmiq6p	# Closer to 50% (Out of 6)	aadrtaq1p	aadrtaq2p	aadrtaq3p	aadrtaq4p	aadrtaq5p	# Closer to 50% (Out of 5)
6	3	1	1	1	1	1	1		0	0	0	0	0	
7	3	0	0	1	0	0	0		0	0	0	0	0	
8	3	1	1	1	1	1	1		0	0	0	0	0	
9	3	1	1	1	1	0	0		0	1	0	0	1	
10	3	1	1	0	1	1	0		0	0	0	0	0	
11	3	1	1	1	1	1	0		0	0	0	0	0	
12	3	1	1	1	1	1	1		0	0	0	0	0	
13	3	1	1	1	1	1	0		0	0	0	0	0	
14	3	1	1	1	1	0	0		0	0	0	0	0	
		93%	93%	93%	86%	79%	36%	1	0%	14%	7%	7%	14%	0
1	4	1	1	1	1	1	1		1	1	1	0	1	
2	4	1	1	1	0	0	0		1	1	0	0	1	
3	4	1	1	1	1	0	0		1	1	1	0	1	
4	4	1	1	1	1	0	0		1	1	1	1	1	
5	4	1	1	1	0	0	0		1	1	0	0	1	
6	4	1	1	1	0	0	0		0	1	0	1	1	
7	4	0	0	0	0	0	0		1	1	0	0	1	
8	4	1	1	1	1	0	0		1	1	0	0	1	
9	4	1	1	1	0	0	0		1	1	0	1	1	
10	4	1	1	1	1	0	0		0	1	0	0	1	
11	4	1	1	1	1	0	0		1	1	1	1	1	
12	4	1	1	1	0	0	1		1	1	0	0	1	
13	4	1	1	1	0	0	0		1	1	1	0	1	
14	4	1	1	1	0	0	0		1	1	1	1	1	
		93%	93%	93%	43%	7%	14%	1	86%	100%	43%	36%	100%	2
1	5	1	1	1	1	1	1		1	1	1	1	1	
2	5	1	1	1	1	0	0		0	0	0	0	0	
3	5	1	1	1	1	1	0		1	0	1	0	1	
4	5	1	1	1	1	1	0		0	1	1	0	1	
5	5	0	0	1	0	0	0		0	0	0	0	0	
6	5	1	1	1	0	0	0		1	1	0	0	1	
7	5	0	0	1	0	0	0		1	1	0	0	0	
8	5	1	1	1	0	1	0		1	0	0	0	1	
9	5	1	1	1	1	0	0		1	0	0	1	1	
10	5	1	1	1	1	1	0		1	1	1	0	0	

		Motivational Interviewing Section Questions							Referral to Treatment Section Questions					
Preceptor ID	Video	aadmiq1p	aadmiq2p	aadmiq3p	aadmiq4p	aadmiq5p	aadmiq6p	# Closer to 50% (Out of 6)	aadrtaq1p	aadrtaq2p	aadrtaq3p	aadrtaq4p	aadrtaq5p	# Closer to 50% (Out of 5)
11	5	0	0	1	0	0	0		0	0	0	0	1	
12	5	1	1	1	1	0	1		0	1	0	1	1	
13	5	1	0	0	0	0	0		0	0	0	0	0	
14	5	1	1	1	0	0	0		0	0	0	0	0	
		79%	71%	93%	50%	36%	14%	3	50%	43%	29%	21%	57%	4
1	6	0	0	0	0	0	0		0	1	0	0	0	
2	6	0	0	1	0	0	0		0	0	0	0	0	
3	6	1	0	1	1	0	0		0	0	0	0	0	
4	6	1	1	1	0	0	0		0	1	1	0	1	
5	6	1	1	1	0	0	0		0	0	0	0	0	
6	6	0	0	1	0	0	0		0	0	0	0	0	
7	6	0	0	0	0	0	0		0	1	0	0	0	
8	6	0	0	1	0	0	0		0	0	0	0	0	
9	6	1	0	1	0	1	0		0	1	0	1	1	
10	6	0	0	1	0	0	0		0	0	0	0	0	
11	6	0	0	1	1	0	0		0	0	0	0	0	
12	6	0	0	1	0	0	0		0	0	0	0	0	
13	6	0	0	1	0	0	0		0	0	0	0	0	
14	6	0	0	1	0	0	0		0	0	0	0	0	
		29%	14%	86%	14%	7%	0%	1	0%	29%	7%	7%	14%	1
Number not close to 50% out of 6 Videos		2	2	0	2	3	3		1	2	2	1	1	

Follow Up Section Questions				
Preceptor ID	Video	aadfuq1p	aadfuq2p	# Closer to 50% (Out of 2)
1	1	0	0	
2	1	0	1	
3	1	0	1	
4	1	0	0	
5	1	0	0	
6	1	1	1	
7	1	0	1	
8	1	0	1	
9	1	1	1	
10	1	0	1	
11	1	0	1	
12	1	0	1	
13	1	0	1	
14	1	1	1	
%Agreement		21%	79%	0
1	2	0	1	
2	2	1	1	
3	2	1	1	
4	2	1	1	
5	2	1	0	
6	2	1	1	
7	2	1	0	
8	2	1	1	
9	2	1	1	
10	2	1	1	
11	2	1	1	
12	2	1	1	
13	2	1	1	
14	2	1	1	
		93%	86%	0
1	3	0	1	
2	3	1	1	
3	3	0	1	
4	3	1	1	
5	3	1	0	
6	3	1	1	

Follow Up Section Questions				
Preceptor ID	Video	aadfuq1p	aadfuq2p	# Closer to 50% (Out of 2)
7	3	0	0	
8	3	1	1	
9	3	1	1	
10	3	0	0	
11	3	1	1	
12	3	1	0	
13	3	0	1	
14	3	0	1	
		57%	71%	2
1	4	1	1	
2	4	0	0	
3	4	0	0	
4	4	1	1	
5	4	1	0	
6	4	1	1	
7	4	0	0	
8	4	1	1	
9	4	1	0	
10	4	0	1	
11	4	1	1	
12	4	1	0	
13	4	1	1	
14	4	1	1	
		71%	57%	2
1	5	1	1	
2	5	1	1	
3	5	1	1	
4	5	1	1	
5	5	0	0	
6	5	1	1	
7	5	0	0	
8	5	1	1	
9	5	1	1	
10	5	1	1	
11	5	0	1	
12	5	1	1	

Follow Up Section Questions				
Preceptor ID	Video	aadfuq1p	aadfuq2p	# Closer to 50% (Out of 2)
13	5	0	0	
14	5	0	1	
		64%	79%	1
1	6	1	0	
2	6	1	0	
3	6	1	0	
4	6	1	1	
5	6	1	1	
6	6	1	1	
7	6	1	0	
8	6	0	1	
9	6	1	1	
10	6	0	0	
11	6	1	1	
12	6	1	1	
13	6	1	0	
14	6	1	0	
		86%	50%	1
Number not close to 50% out of 6 Videos		3	3	

Appendix VIII

Questions to Characterize SBIRT Medical Residency Training Program

J. Pringle
July 2, 2014

Institution: _____

1. What topics and skills do you consider to be essential to the training of CORE SBIRT knowledge and skill?
2. Please explain how your curriculum is evidence-based.
3. How many hours of training do you usually provide the residents?
4. Who provides your resident training (e.g., trainers who are part of the grant, champions (faculty) that you have trained, other trainers (specify)?
5. How do you ensure that your trainers can reliably and validly impart your CORE SBIRT knowledge and skill targets?
6. Do you measure knowledge acquisition in your residents? If so, how?
7. Do you measure skill proficiency in your residents? If so, how?
8. Do you use a quality improvement process on your training? If so, please explain how this was used to improve your training.
9. Do you measure changes, from pre- to post-training, in residents' attitudes and perceptions regarding working with individuals that have substance use disorders? If so, please explain how.

Appendix IX

SUMMARY OF SBIRT MEDICAL RESIDENCY TRAINING PROGRAM CHARACTERIZATION AUGUST 2014

	Baylor College of Medicine	Mercer University School of Medicine	University of Pittsburgh Program Evaluation & Research Unit
Topics and skills essential to the training of CORE SBIRT knowledge and skill:	<ul style="list-style-type: none"> • Explain the rationale and research support for SBIRT • Describe the core competencies for working with adolescents affected by substance use • Explain the rationale and research support for SBIRT in adolescents • Discuss the role of SBIRT in preventative health care • Describe the SUD continuum • Define standard drink and healthy drinking limits • Include screening for family substance use • Determine family resource needs • List common SUD screening instruments • List the 3 brief screening questions • Demonstrate appropriate use of validated screening tools for further assessment • Explain the Stages of Change Model for use in SBIRT • Understand how to apply the stages of change in clinical practice • Explain Motivational Interviewing as a method for effective physician – patient communication • Discuss the processes of change • Discuss the context of treatment referral in the SBIRT process • Discuss appropriateness for referral • Provide a brief overview of treatment 	<ul style="list-style-type: none"> • Epidemiology of alcohol and drug misuse issues • Prevalence in primary care • Screening and brief intervention for alcohol misuse • Illicit drug use and for using medications not as prescribed • Referral to treatment • Motivational interviewing <p>Additional topics include:</p> <ul style="list-style-type: none"> • pain and addiction • managing withdrawal • harms of at-risk drinking • medical management and follow-up • implementing SBIRT in your future practice 	<ul style="list-style-type: none"> • Recognition of SBIRT as a prevention practice • Cost benefit of SBIRT • Identifying problematic substance use patterns and behaviors in patients, including appropriate use of evidence-based screening tools • Initiating discussion of substance use with patients • Establishing rapport with a patient and permission to discuss substance use • Educating patients on consequences of substance use • A brief discussion process to assist patients in identifying specific and realistic behavior changes that they are capable and confident of enacting • Motivational Interviewing skills that elicit what is important (motivational) to the patient • Developing an appropriate follow-up plan to substance use interventions • Medical and psychiatric signs, symptoms and complications of substance use • Recognition when patients require specialized treatment services • Substance use treatment options and enhancing access to treatment • Pharmacologic treatment options, medical management of patients in treatment and application of

SUMMARY OF SBIRT MEDICAL RESIDENCY TRAINING PROGRAM CHARACTERIZATION AUGUST 2014

	Baylor College of Medicine	Mercer University School of Medicine	University of Pittsburgh Program Evaluation & Research Unit
	<ul style="list-style-type: none"> options and criteria • Explain the referral process in the Houston area (Harris Health System, TCH, VA) • Discuss referral to treatment challenges • Explore referral process through practice, video example and interactive cases 		<ul style="list-style-type: none"> pharmacologic treatment • Diagnostic classification and documentation of practices, including privacy and confidentiality requirements • Implementing SBIRT in medical settings
The curriculum is evidence-based (specify how):	<ul style="list-style-type: none"> • Substance use screening instruments, including the single question alcohol screen, single question drug screen, AUDIT, DAST and CRAFFT. • The brief intervention curriculum was developed with input from and was deemed Motivational Interviewing-consistent by several subcontracted Motivational Interviewing Network of Trainers members. 	<ul style="list-style-type: none"> • Utilize validated screening instruments (single question drug and alcohol screens, AUDIT and DAST using validated cutoff points) and validated intervention approaches (alcohol brief intervention). • The curriculum has shown to result in increased screening and brief intervention rates for alcohol (data presented at AMERSA, article under review). 	<ul style="list-style-type: none"> • All content of the curriculum is vetted based on published research and includes citations for sources. • Genesis of included Screening instruments, Brief Intervention process and skills and Treatment criteria is evidence-based tools and practices
Number of training hours provided to residents:	<ul style="list-style-type: none"> • Level 1 (CORE) - 4 hours • Level 2 (Champions) - 24 hours 	<ul style="list-style-type: none"> • Total of 18 hours over 3 years (6 hours per year of didactics) 	<ul style="list-style-type: none"> • Foundation training requires a minimum of 6 hours, with a target of 8 hours. A minimum of 3 hours of interactive training. • Advanced training requires minimum of 2 hours didactic training with precepting of at least two clinical encounters/per program year. • Champion training is composed of a minimum of 4 hours interactive training, accompanied by self-directed online training and consultation.
Describe the Individuals providing resident training:	<ul style="list-style-type: none"> • Level 1 training: grant faculty AND trained faculty champions within each residency program. This has transitioned from year one through year 5 of the grant 	<ul style="list-style-type: none"> • Full-time residency faculty (Drs. Seale and Shellenberger) • Grant coordinator (funded as part of the 	<ul style="list-style-type: none"> • Foundation training includes: <ul style="list-style-type: none"> ○ Online/web-based curricula for self-directed learning;

**SUMMARY OF SBIRT MEDICAL RESIDENCY TRAINING PROGRAM CHARACTERIZATION
AUGUST 2014**

	Baylor College of Medicine	Mercer University School of Medicine	University of Pittsburgh Program Evaluation & Research Unit
	<p>with all training done by grant faculty year one and most training done by faculty champions year five (large residencies i.e., internal medicine and pediatrics trainings done by mix of grant and champion faculty to maintain training group sizes under 20 students per group).</p> <ul style="list-style-type: none"> • Level 2 training performed by grant faculty (11 hours), psychiatry faculty champion (1 hour) and a sub contracted Motivational Interviewing Network of Trainers member (12 hours). 	<p>grant)</p> <ul style="list-style-type: none"> • Invited guests experts (e.g., Dr. Hunter Woodall, Dr. Ken Saffier) with expertise on particular subjects. 	<ul style="list-style-type: none"> ○ Face-to-face interactive workshop with master trainer(s) with faculty champion in attendance, initially (future trainings transition to faculty being led); ○ Faculty may lead: additional sessions using curricula exercises; practice with standardized cases; or, precepting may live clinical encounters ○ Foundation also includes embedding in clinical environment to observe/participate in SBIR practices whenever appropriate and logistically possible • Advanced training modules may be led by Master trainers or faculty or guest experts.
Ensuring that trainers can reliably and validly impart CORE SBIRT knowledge and skill targets accomplished by:	<ul style="list-style-type: none"> • Providing 24 hours of champions training. • Quarterly training updates. • Co-teaching sessions during years two through 4 of the grant. • Giving observed feedback to faculty Champions conducting full training sessions independently in year 5 of the grant. • Currently in the process of validating an internal SBIRT competency checklist for giving structured feedback during resident role-play practice of SBIRT skills during training sessions. 	<ul style="list-style-type: none"> • Residents observe each other and provide feedback after each teaching session. • Faculty reviews evaluation responses from learners. • Performing limited observation of residents in clinic and hospital encounters. 	<ul style="list-style-type: none"> • Foundation online curriculum presents information/messages with consistency. • Effective Brief Intervention virtual training for medical residents and faculty, models best BI practices, provides immediate trainee feedback and provides a minimum proficiency rating. • Champion training is provided by Master Trainers who are developed first as site champions, then participate in champion training and apprentice with site trainings. • Interactive workshops allow trainees to receive peer, faculty and trainer feedback. • Use of a Proficiency checklist, which is in process of being validated.

**SUMMARY OF SBIRT MEDICAL RESIDENCY TRAINING PROGRAM CHARACTERIZATION
AUGUST 2014**

	Baylor College of Medicine	Mercer University School of Medicine	University of Pittsburgh Program Evaluation & Research Unit
Knowledge acquisition is measured by:	<ul style="list-style-type: none"> • Pre/post training survey assessing knowledge and attitudes about substance use and SBIRT. • Use of a competency checklist during resident role-play practice of SBIRT skills within training sessions. • Surveying residents monthly about their incorporation of SBIRT into clinical practice. 	<ul style="list-style-type: none"> • Informally through quizzes • Formally through chart reviews (are they performing brief interventions for patients with positive screens). 	<ul style="list-style-type: none"> • Pre- post-training surveys of trainee Attitudes and Perceptions of working with patients with problematic substance use. • Pre- post-training survey of four knowledge targets. • Five quizzes covering learning targets across the curricula, requires 100% attainment.
Skill proficiency measured by:	<ul style="list-style-type: none"> • Using a competency checklist during resident role play practice of SBIRT skills within training sessions 	<ul style="list-style-type: none"> • Informally through observations of practice sessions. • Formally, through chart reviews, and observations of MI skills during patient encounters, with feedback provided. 	<ul style="list-style-type: none"> • Proficiency checklist during role-play of SBIRT BI during workshops and clinical rotations, as available. • Effective Brief Intervention virtual training for medical residents and faculty, provides a proficiency rating and record of trainee BI skills. • Precepting of trainees by site champions and trained faculty.
Quality Improvement process on training program:	<ul style="list-style-type: none"> • Survey residents about their training satisfaction and elicit suggestions for improvement in the training using the GPRA. This is done immediately after the training and one month later. All surveys are reviewed by our CORE grant team, and curricular updates are made accordingly. • Faculty and resident champions give input into updating the curriculum. This was sought formally for our online modules, and informally after each training session in which faculty champions present a training session. Input on training length and structure (online vs in person and 4 	<ul style="list-style-type: none"> • Chart audits and track screening and intervention rates. • Provide monthly feedback (aggregate reports) to residents, faculty and nurses. • QI meetings every 1-2 months to discuss SBIRT processes. 	<ul style="list-style-type: none"> • A Snapshot report, immediately post-training allows us to identify training issues that warrant further investigation. • Final Report for each training group, along with trainer interviews and trainee focus groups, reveal quality improvement opportunities. • Training satisfaction surveys follow Champion training. • An evaluations committee meets every month to QI findings. • A QI Log is used to track all improvement opportunities, actions taken/not taken, and results.

**SUMMARY OF SBIRT MEDICAL RESIDENCY TRAINING PROGRAM CHARACTERIZATION
AUGUST 2014**

	Baylor College of Medicine	Mercer University School of Medicine	University of Pittsburgh Program Evaluation & Research Unit
	contiguous hors vs 4 one hour sessions) provided from residency program directors who are also invited to quarterly champion meetings.		<ul style="list-style-type: none"> • A council of Directors meets quarterly to review training progress, training outcomes and develop strategies to sustain and disseminate training and implementation of SBIRT.
Measuring changes from pre- to post-training in residents' attitudes and perceptions regarding working with individuals that have substance use disorders accomplished by:	<ul style="list-style-type: none"> • Pre/post survey administered during in person trainings, before start of the first training session and at the end of the final training session. 	<ul style="list-style-type: none"> • Using a clinician and provider questionnaire, modified from our previous NIH training project, at baseline and repeat the survey annually that measures attitudes and residents' perceived competence. 	<ul style="list-style-type: none"> • Pre- post-training surveys of trainee Attitudes and Perceptions includes measurement/changes in: <ul style="list-style-type: none"> ○ Frequency of application of SBIRT practices; ○ Self-perceived SBIRT competency; and ○ Perceptions of working with patients with problematic substance use (AAPPQ and DDPPQ questionnaires)