Psychometric properties of the Peer Proficiency Assessment (PEPA): A tool for evaluation of undergraduate peer counselors' motivational interviewing fidelity

Nadine R. Mastroleo [a,*], Kimberly A. Mallett [b], Rob Turrisi [b], Anne E. Ray [b]

[a] Center for Alcohol and Addiction Studies, Brown University, Box G-S121-4, Providence, RI 02912, United States
[b] Prevention Research Center, The Pennsylvania State University, 204 Calder Way, Suite 208, State College, PA 16801, United States

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ABSTRACT

Despite the expanding use of undergraduate student peer counseling interventions aimed at reducing college student drinking, few programs evaluate peer counselors' competency to conduct these interventions. The present research describes the development and psychometric assessments of the Peer Proficiency Assessment (PEPA), a new tool for examining Motivational Interviewing adherence in undergraduate student peer delivered interventions. Twenty peer delivered sessions were evaluated by master and undergraduate student coders using a cross-validation design to examine peer based alcohol intervention sessions. Assessments revealed high inter-rater reliability between student and master coders and good correlations between previously established fidelity tools. Findings lend support for the use of the PEPA to examine peer counselor competency. The PEPA, training for use, inter-rater reliability information, construct and predictive validity, and tool usefulness are described.

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1. Introduction

Alcohol use is routinely cited by researchers as a concern at U.S. colleges causing university administrators to invest time and money toward managing and solving problems associated with drinking (Faden & Baskin, 2002; Johnson, O'Malley, Bachman, & Schulenberg, 2005). One prevention approach consists of using alcohol intervention programs (e.g., Brief Alcohol Screening in College Students; BASICS) which incorporate Motivational Interviewing (MI) skills developed by Miller and Rollnick (1991, 2002) to facilitate change and reduce college student drinking behaviors. Initial interventions trained professional counselors in MI to meet individually with undergraduate college students with an aim at reducing alcohol use and associated negative consequences but have since expanded to include interventions using undergraduate student peer counselors (Borsari & Carey, 2000, 2005; Larimer et al., 2001; Marlatt et al., 1998; Turrisi et al., in press). These empirically supported treatments offer tremendous promise towards reducing college student alcohol use and associated negative consequences (Larimer & Cronce, 2002, 2007). However, the cost of using professional staff to conduct these interventions may limit implementing such programs on a wide scale.

More recently, there has been a growing body of research examining the efficacy of undergraduate peer-delivered MI feedback sessions for students mandated for alcohol counseling (see Larimer et al., 2001; Larimer & Cronce, 2002, 2007). The past empirical studies have evaluated undergraduate student counselors ability to conduct MI interventions with adherence through tools such as the Motivational Interviewing Skills Code (MISC; Miller, 2000), Motivational Interviewing Treatment Integrity (MITI; Moyers, Martin, Manuel, & Miller, 2003), and Motivational Interviewing Supervision and Training Scale (MISTS; Madson, Campbell, Barrett, Brondino, & Melchert, 2005). In contrast, when this intervention approach has been implemented in traditional practice settings across college campuses a lack of consistent peer training and adherence protocols has been observed (Mastroleo, Mallett, Ray, & Turrisi, 2008). Research evaluating undergraduate peer counselor implementation practices have shown that no minimum level of standardized counselor competency has been traditionally employed (Mastroleo et al., 2008).

Although use of these counselor evaluation tools in empirical studies allow researchers to confirm an appropriate intervention has been conducted, they may be less suitable for undergraduate peer counselors. First, there are distinguishable clinical skill differences between highly trained professional counselors and undergraduate student counselors, yet the standards for competency are not weighted by the counselor type. Second, although each tool offers important components of evaluation for MI adherence or skill acquisition, they have been validated when the interventions were delivered by counselors with masters or higher educational training (Tappin et al., 2000) and not with undergraduate student counselors. Third, training for use of the MI evaluation tools vary from 5 h to 3 days while session reviews for intervention integrity range from 20 to 50 min. Student affairs professionals generally have limited time, limited training, varied professional backgrounds, and high staff turnover to be

* Corresponding author. Tel.: +1 401 863 6624; fax: +1 401 863 6697.
E-mail address: Nadine_Mastroleo@brown.edu (N.R. Mastroleo).

responsible for evaluating undergraduate peer-delivered MI fidelity (Mastroleo, Ray, & Turrisi, 2006). Given these empirical and practical constraints a simple to learn and use, and time efficient tool is needed to evaluate the effectiveness of undergraduate peer intervention evaluations.

The Peer Proficiency Assessment (PEPA) was developed with these issues in mind and requires only 2 h of training time and 15 min of session review to effectively examine undergraduate peer MI skill use. Specifically, the design and training required to effectively use the tool requires minimal time and past experience with MI and coding peer counseling sessions. To establish this we used both individuals highly trained in MI and undergraduate students with both moderate and limited previous exposure to MI principles to test the ability of newly trained coders to successfully identify MI consistent and inconsistent behaviors. The focus of this paper is to document the development and validation of the PEPA for evaluating peer counselor MI adherence and skills that can be used in both research and practice settings.

2. Method

2.1. Instrument development

The PEPA was developed on the basis of using behavior counts consistent with MI adherent intervention approaches as defined by Miller and Rollnick (1991, 2002). First, appropriate intervention content and communication skills were identified through a review of literature examining essential components of MI adherent interventions (Madson et al., 2005; Miller, 2000; Miller & Rollnick, 1991, 2002; Moyers et al., 2003). Specifically, we evaluated current components of the MITI (Moyers et al., 2005), an empirically supported MI fidelity tool previously used in peer-led brief alcohol intervention efficacy trials (e.g., Tollison et al., 2008; Turrisi et al., in press). One component of MITI scoring includes examination of counseling microskills behavior counts to assess MI adherence in addition to subjective evaluation of counselor empathy and MI spirit.

Based upon the components of the MITI, BASICS sessions behavior counts (open and closed ended questions, simple and complex reflections) were correlated with global MI scores used for evaluating MI adherence on the MITI (i.e., empathy and spirit; Moyers et al., 2003). Results identified high, positive relationships (all $rs > .7$) between use of open questions and complex reflections such that when peer counselors used more of each skill, adherent scores were recorded. Therefore, use of open and closed ended questions, simple (e.g., repeat, rephrase), and complex (e.g., paraphrase, metaphor, double-sided, etc.) reflections are identified through analysis of audio recorded peer counseling sessions. Further, the decision to exclusively examine behavior counts of MI skills was made to capture specific areas of skill most often displayed in brief, individual feedback interventions. Although past research has examined both behavior counts of MI skills and global scores of empathy and spirit, this was done with professional counselors completing specific training in MI, followed by evaluation of MI counseling sessions devoid of personalized graphic feedback (Moyers et al., 2005). The differences in training between professional and peer counselors, combined with peer counselors' use of graphic feedback to complete interventions, suggest subjective global score ratings may offer little added benefit when examining peer counseling motivational enhancement sessions. The PEPA was designed to allow a systematic assessment of fidelity using an objective measure which may benefit not only less clinically experienced peer counselors, but supervisors who are familiar with MI, but have limited training and experience with the skills necessary to evaluate the fidelity of a session. In evaluating adherence to MI microskills behavior counts, appropriate use of MI skills relevant to brief motivational enhancement interventions can be assured. Definitions of skill behaviors and discrepancies between specific types of communication skills are identified in Table 1.

Table 1
PEPA coding definitions.

	Definition
Questions	
Open	Used to encourage conversation through opportunities for clients to explain and expand upon thoughts, feelings, experiences related to a topic. Used to encourage client to talk without feeling defensive. Questions may start with the following stems: *How, Tell me more, What, In what way*
Closed	Caution in using this form of question; limits the client in expressing thoughts, feelings. Do not often encourage conversation. Often ties a client to yes/no answers. Can be used effectively to help move session along, gain clarification on a specific area, or gain permission for moving forward with session. Questions may start with the following stems: (main identification: question can be answered with yes/no or one word phrase answer) *Where, Are you, Do you want to, Is this*
Simple reflections	
Repeat	Simply repeating the speakers words
Rephrase	Repeats speakers words but replaces/substitutes some words with synonyms
Complex reflections	
Paraphrase	Reflects what is said but also infers meaning – hypothesis testing – amplifying change talk
Double-sided reflections	Type of paraphrasing but reflects both sides of ambivalence described by the speaker
Metaphor	A figure of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them
Reflection of feeling	Emphasizes the emotional component of what is said – takes into account body language and inflection/tone in voice of client while making statements
Summary	Pulls together information from speaker statements; captures the highlights in a succinct statement

Finally, we examined differences between variations in time slices using the MITI. Our initial analysis pointed towards the first 15 min as similar to other session segments in which fidelity was assured. In doing so, we evaluated coded behavior counts relative to the timed segment chosen for MITI evaluation and identified a higher percentage of open questions and complex reflections were used during earlier timed segments (encompassing the first 20–25 min of the BASICS intervention). This was likely due to the nature of the BASICS intervention in which the first 15–20 min are used for client exploration of drinking behaviors, beliefs about drinking, and rapport building prior to discussing participant personalized, graphic feedback. Based upon this information and the nature of the BASICS intervention (motivational enhancement using personalized, graphic feedback), the initial 15 min of each session was chosen for session evaluation. As noted, the BASICS intervention is a structured interview in which a personalized feedback sheet is used to guide the intervention. Miller and Rollnick (2002) have defined this type of intervention as motivational enhancement rather than true motivational interviewing due to the structured nature of the conversation. Therefore, when examining a full 50 min BASICS session, only the first 15–20 min most closely employs true MI identifying this as the most appropriate segment to examine MI adherence. Additionally, all major components of MI are employed during this initial 15 min of a BASICS intervention and allow the fidelity check to capture more MI behaviors, rather than components of a feedback intervention.

2.2. Use as a competency tool

Miller and Rollnick (2002) identify use of higher level counseling skills (i.e., open-ended questions, complex reflections) as facilitating change talk, which in turn impacts drinking behaviors to more closely align with less hazardous outcomes. However, the use of closed ended questions and simple reflections have been associated with limited to no change in drinking behaviors (Miller & Rollnick, 2002; Tollison et al., 2008). The PEPA focuses on the examination of MI skills components