Journal of Substance Abuse Treatment 55 (2015) 52–57

Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment

Brief articles

Adapting the Helpful Responses Questionnaire to Assess Communication Skills Involved in Delivering Contingency Management: Preliminary Psychometrics

Bryan Hartzler, Ph.D. *

Alcohol & Drug Abuse Institute, University of Washington, Box 354805, 1107 NE 45th Street, Suite 120, Seattle, WA, 98105–4631, USA

ARTICLE INFO

Article history:
Received 19 September 2014
Received in revised form 19 February 2015
Accepted 22 February 2015

Keywords:
Contingency management
Scale development
Dissemination and implementation

ABSTRACT

A paper/pencil instrument, adapted from Miller and colleagues' (1991) Helpful Responses Questionnaire (HRQ), was developed to assess clinician skill with core communicative aspects involved in delivering contingency management (CM). The instrument presents a single vignette consisting of six points of client dialogue to which respondents write 'what they would say next.' In the context of an implementation/effectiveness hybrid trial, 19 staff clinicians at an opiate treatment program completed serial training outcome assessments before, following, and three months after CM training. Assessments included this adaptation of the HRQ, a multiple-choice CM knowledge test, and a recorded standardized patient encounter scored for CM skillfulness. Study results reveal promising psychometric properties for the instrument, including strong scoring reliability, internal consistency, concurrent and predictive validity, test–retest reliability and sensitivity to training effects. These preliminary findings suggest the instrument is a viable, practical method to assess clinician skill in communicative aspects of CM delivery.

1. Introduction

The dissemination of empirically-supported behavior therapies to routine clinical care remains a poignant challenge, for therapy purveyors as well as the clinic directors and direct-care staff who would be eventual agents of therapy implementation (Carroll, 2012). A promising trend in the past decade has been greater awareness of behavior therapies in community settings, fueled by large-scale efforts of the Substance Abuse Mental Health Services Administration (SAMHSA) and National Institute on Drug Abuse (NIDA). Prominent undertakings include SAMHSA's maintenance of a National Registry of Evidence Based Programs and Practices (www.nrepp.samhsa.gov) and regional Addiction Technology Transfer Centers, NIDA's creation of a Clinical Trials Network to spur multisite effectiveness research (Hanson, Leshner, & Tai, 2002), and a joint effort to develop clinician-friendly 'blending products' (Martino et al., 2010). Even so, prior research suggests adoption of even widely-promoted empirically-supported treatments occurs among just a minority of community addiction treatment settings (Knudsen, Abraham, & Roman, 2011; Roman, Abraham, Rothrauff, & Knudsen, 2010).

Beyond treatment community awareness, the challenge of behavior therapy dissemination includes barriers beyond the initial adoption decision. Many barriers implicate quality assurance that a therapy is skillfully delivered (McHugh & Barlow, 2010). Questions remain about what training and supervision methods are sufficient to develop and maintain skillful delivery of empirically-supported behavior therapies (Beidas & Kendell, 2010; Herschell, Kolko, Baumann, & Davis, 2010). A linked concern is limited feasibility of the observational systems used in controlled treatment trials to measure the quality of how clinicians deliver a therapy. These systems, typically reliant on time-consuming direct observation or review of recorded clinical sessions paired with structured skill ratings (Baer et al., 2007), are unwieldy for under-resourced treatment settings. Further, the intrusive nature of observational processes presents logistical and philosophical challenges for community-based clinicians and their clientele. Accordingly, there is need to develop and validate practical skill assessment methods, and a key component of such methods is that they prompt clinicians to rehearse therapy delivery skills (Beidas, Cross, & Dorsey, 2014). In many therapies, such therapy delivery skills reflect how clinicians respond verbally to clients. Several validated skill assessment methods simulate this using standardized clinical stimuli—in the form a live standardized patient (Imel et al., 2014; Stimmel, Cohen, Fallar, & Smith, 2006), pre-recorded video clips (Baer et al., 2012; Rosengren, Hartzler, Baer, Wells, & Dunn, 2008), or written vignettes (Miller, Hedrick, & Orlofsky, 1991). A shared attribute of these methods is the opportunity they provide to measure targeted aspects of clinician verbal behavior when the clinician is given a consequence-free opportunity to rehearse communicative skills.

One empirically-supported behavior therapy for treating substance abusers for which options for clinician skill assessment are limited is contingency management (CM), which encompasses a family of related behavioral reinforcement approaches. Petry (2012) notes as core tenets of CM methods that: 1) a focal, desired patient behavior be closely

* Tel.: +1 206 543 8369; fax: +1 206 543 5473.
E-mail address: hartzb@u.washington.edu.

http://dx.doi.org/10.1016/j.jsat.2015.02.006
0740-5472/

monitored, 2) a tangible, positive reinforcer be provided when the behavior occurs, and 3) reinforcers be withheld when the behavior does not occur. Meta-analyses document reliable therapeutic effects of CM on substance abusers (Dutra et al., 2008; Griffith, Rowan-Szal, Roark, & Simpson, 2000; Lussier, Heil, Mongeon, Badger, & Higgins, 2006; Prendergast, Podus, Finney, Greenwell, & Roll, 2006). And like many empirically-supported behavior therapies, a validated observational measurement system does exist whereby clinician performance in a clinical session may be rated (Petry, Alessi, Ledgerwood, & Sierra, 2010). While well-suited for use in controlled treatment trials, such observational systems are not in wide community use given a mismatch between the personnel resources they require and that which are available in most treatment settings. Thus, design of a practical, skill assessment method would fill an important gap.

Research on training community treatment professionals in CM and its impact on their consequent implementation experience is mixed. Results of a nationwide training effort with VA clinic leaders suggest that multi-day workshop exposure promotes conducive beliefs about CM (Rash, DePhillipis, McKay, Drapkin, & Petry, 2013). Further, many of the corresponding VA clinics reportedly attempted to institute CM in some form when provided initial funding support (Petry, DePhillipis, Rash, Drapkin, & McKay, 2014). However, this national VA initiative did not assess the nature, quality, or sustainment of those implementation efforts, and extant literature contains multiple examples of well-intentioned attempts to implement CM undermined or discontinued after encountering of logistical or procedural problems (Tuten, Svikis, Keyser-Marcus, O'Grady, & Jones, 2012; Walker et al., 2010). Critical to successful implementation of CM is the capacity of direct-care clinicians to demonstrate core communication skills that they would be expected to display during delivery of contemporary CM interventions. Thus, a practical method for assessing these core communication skills is needed.

A recent CM implementation/effectiveness trial at a community opiate treatment program (Hartzler, Jackson, Jones, Beadnell, & Calsyn, 2014), which principally evaluated impacts of training among staff clinicians, offered opportunity to develop and evaluate psychometric properties of a pencil/paper skill assessment instrument. This instrument, adapted from the Helpful Responses Questionnaire [HRQ; (Miller et al., 1991)] originally developed to assess clinician skill in communicating empathy, sought to provide a practical way to assess core communicative skills involved in delivery of contemporary CM interventions. The trial included serial training outcome assessments for participating clinicians—occurring prior to, immediately following, and three months after training in a quasi-experimental design that also accounted for assessment reactivity. In each training outcome assessment, a new version of the HRQ adapted for contingency management (HRQ-CM) was administered alongside an existing CM knowledge test and standardized patient interview scored with a validated observational CM measurement system. Upon completing training, clinicians had opportunity to implement a CM intervention with targeted clients on their caseload on a provisional basis for 90 days. Herein, preliminary psychometrics of the HRQ-CM are reported including scoring reliability, internal consistency, test–retest reliability, concurrent and predictive validity, and sensitivity to training effects. A data-informed approach is also taken in proposing a provisional competency benchmark.

2. Materials and method

2.1. Parent trial design

This was an implementation/effectiveness hybrid trial design (Curran, Bauer, Mittman, Pyne, & Stetler, 2012), for which implementation and clinical effectiveness outcomes have been comprehensively reported (Hartzler et al., 2014). The trial included: 1) recruitment of interested staff clinicians to participate in CM training and implement a contextualized CM intervention with targeted clients on their caseload for a 90-day period, and 2) serial completion of training outcome assessments prior to, following, and three months after training. To account for potential assessment reactivity (given absence of no-training/waitlist control condition), the clinicians were randomly-assigned to a single baseline assessment condition completed a week prior to training or a repeated baseline assessment condition with measures completed two weeks prior to training and repeated a week later. This quasi-experimental trial design feature enabled analysis of the HRQ-CM's test–retest reliability in a subsample of ten clinicians.

2.2. Collaborating treatment setting

The collaborating setting is a private, non-profit opiate treatment program located in an urban area of a large U.S. city. It maintains a census of 1000 patients who receive agonist medication, individual/group counseling, and monthly drug screen urinalysis (UA). The clinic is affiliated with the NIDA Clinical Trials Network, and had previously participated in multisite trials of alternative treatment approaches as well as other federally-funded research.

2.3. Contextualized CM intervention

A full description of this CM intervention and its collaborative design process is available (Hartzler et al., 2014). Briefly, and at the clinic director's specification, the CM intervention featured: 1) a target population of patients in their initial 90 days of clinic services, 2) a target behavior of individual counseling visit attendance, 3) $5 gift cards and take-home medication doses as reinforcers, and 4) a 'point-based' reinforcement system. An investigator-derived reinforcement schedule integrated priming and escalation/reset features to enhance clinical impacts. In a 90-day clinic implementation period, trained clinicians delivered this intervention on a trial basis with eligible clients on their caseload—monitoring the target behavior, tracking earned points, and delivering reinforcers amidst usual care in weekly counseling visits. To aid clinic tracking, the electronic medical record system was adapted to include documentation of patient point totals (and any reinforcers provided) in individual counseling visit notes.

2.4. Adapted Helpful Responses Questionnaire for Contingency Management (HRQ-CM)

The HRQ-CM was designed as a paper/pencil method to assess communication skills involved in delivery of CM interventions. It sought to capitalize on the structural appeal and practicality of the original and previously-validated HRQ instrument developed by Miller et al. (1991), who intended it to be a practical measure of clinician skill in communicating empathy. Corresponding observational measurement systems (Truax & Carkhuff, 1967) were thought to be a poor match for many in the treatment community, given their cumbersome and resource-intensive nature. Miller and colleagues also suspected poor correlation between clinician self-reports of clinical practice behavior and objective behavioral ratings by 3rd-parties, a hypothesis borne out in later research (Baer et al., 2004; Miller & Mount, 2001; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004). The original HRQ was structured in vignette form with six discrete patient scenarios presented, to which the respondent was to write "the next thing you would say" to each patient. In its original validation, the HRQ evidenced strong scoring reliability by independent raters ($r = .93$), internal consistency (Cronbach $\alpha = .92$), and sensitivity to the effects of training (Miller et al., 1991). Consequently, the HRQ offered a compelling template from which the current work sought methodological adaptation to tap clinician skill with core communicative aspects of CM delivery.

The HRQ-CM was designed to assess a set of six core communication skills involved in CM delivery, which may all occur in a given counseling visit. Consequently, the basic vignette structure of the instrument was maintained but with item content contextually linked in one patient