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Adolescent Substance Treatment Engagement Questionnaire for Incarcerated Teens

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ABSTRACT

Background: Treatment engagement is often measured in terms of treatment retention and drop out, resource utilization, and missed appointments. Since persons may regularly attend treatment sessions but not pay close attention, actively participate, or comply with the program, attendance may not reflect the level of effort put into treatment. Teens in correctional settings may feel coerced to attend treatment, making it necessary to develop measures of treatment involvement beyond attendance. This study describes the development and validation of the Adolescent Substance Treatment Engagement Questionnaire (ASTEQ), Teen and Counselor versions.
Methods: The psychometric properties of the ASTEQ were examined in a sample of incarcerated teens ($N = 205$) and their counselors. Principal component analysis was conducted on teen and counselor versions of the questionnaire.
Results: Scales of positive and negative treatment engagement were found, reflecting both overt behaviors (joking around, talking to others) and attitudes (interest in change). Significant correlations with constructs related to treatment attitudes and behaviors, and misbehaviors (including substance use) demonstrate good concurrent and predictive validity. Teen and counselor ratings of engagement produced validity correlations in the medium effect size range.
Conclusions: These measures comprise a valid and reliable method for measuring treatment engagement for incarcerated teens.

1. Introduction

Teens involved in the juvenile justice system are twice as likely to use substances than other teens their age (National Center on Addiction and Substance Abuse at Columbia University, 2004), with alcohol and marijuana reported as the two most frequently used substances among juvenile detainees (McClelland, Elkington, Teplin, & Abram, 2004). In addition, many teens within the justice system use substances routinely (Crowe, 1998; Dembo et al., 1999), and the prevalence of incarcerated adolescents meeting diagnostic criteria for substance abuse and dependence is great (McClelland et al., 2004; Neighbors, Kempton, & Forehand, 1992; Stein et al., 2006; Teplin, Abram, McClelland, Dulan, & Mericle, 2002). However, in a review of over 3,000 juvenile facilities nationwide, it is estimated that treatment for drug offenders is available in 67% of juvenile correctional facilities (Snyder & Sickmund, 2006), however, only 1% to 21% of adolescents received services in justice settings that provided them (Young, Dembo, & Henderson, 2007). Youths involved in the juvenile justice system are often unmotivated for intervention (Melnick, De Leon, Hawke, Jainchill, & Kressel, 1997; Prochaska et al., 1994), and therefore these adolescents are less likely to be engaged in treatment.

Treatment engagement can be defined as an individual's commitment to treatment and motivation to change (Battjes, Onken, & Delany, 1999). Treatment engagement for adolescents is often operationalized in attendance-based or retention-based terms such as treatment enrollment, attendance, retention, and drop out, especially early drop out (Dakof, Tejeda, & Liddle, 2001; Ingoldsby, 2010; Simpson & Joe, 1993). Treatment engagement can also be measured in terms of cognitive-based measures in the ongoing therapeutic process, where high levels of behavioral and cognitive engagement in treatment predicts stronger therapeutic relationships, greater confidence in treatment, more motivation, and better treatment outcomes (Gragg & Wilson, 2011; Melnick, DeLeon, Thomas, Kressel, & Wexler, 2001; Reisinger, Bush, Colom, Agar, & Battjes, 2003).

In instances where incarcerated teens are court-ordered to attend treatment for substance use, engagement in treatment cannot be mandated. Because adolescents may not pay close attention, actively participate, or comply with the structure of the program (Gainey, Catalano,

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Haggerty, & Hoppe, 1995), enrollment, attendance, and retention may not accurately reflect the level of effort put into changing. In addition, adolescent perceptions of coercion may play an important factor in their treatment engagement (Catalano, Hawkins, Wells, Miller, & Brewer, 1990; Ryan, Plant, & O'Malley, 1995).

Although adolescents who are coerced into treatment may receive a service that might not otherwise be available to them, coercion can compromise engagement for adolescents who do not believe they have a substance use problem and who are not motivated for change (Battjes, Gordon, O'Grady, Kinlock, & Carswell, 2003). Due to the challenges involved in assessing the treatment engagement of incarcerated teens, treatment participation, attitude, and investment beyond attendance are important to assess. Therefore, it is necessary to develop an adolescent measure of treatment engagement beyond attendance and retention-based measures.

1.1. Current measures of adolescent treatment engagement

Documentation of adolescent treatment engagement is often recorded as an assessment of quantifiable youth behaviors (i.e., attendance, participation) and treatment outcomes (i.e., abstinence from illicit drug use) (Brown, D'Amico, McCarthy, & Tapert, 2001; Reisinger et al., 2003). Measurements of adult treatment engagement in substance use disorders exist; however, developmentally appropriate measurements for adolescents are rare (Garnick et al., 2007). Broome, Joe, and Simpson (2001) examined a sample of 1,106 adolescents enrolled in 20 substance abuse treatment programs nationwide (residential, drug-free outpatient, and short-term inpatient facilities) and found that readiness for treatment (motivation/attitude) at intake predicted greater therapeutic involvement in treatment. This finding confirms another indicator of treatment engagement, though does not propose an exact measure to assess engagement.

In addition, adolescent treatment engagement in outpatient substance use disorder treatment setting has been explored using a version of the Washington Circle attendance-based engagement measure, modified for adolescents, and its relationship to a range of treatment outcomes, including substance use and control of problem behaviors (Garnick et al., 2012). Adolescents were 12 to 18 years old and identified as having a problem with substance use. Treatment engagement was defined as having received at least two additional outpatient treatment services within 30 days after the initiation date; however, it only quantified their participation and did not use a cognitive-based measure of engagement. Although this study reported on the research finding derived from the Washington Circle engagement measure (adolescent version), internal consistency and other methods to validate the measure for use with adolescents were not reported. Currently, no psychometrically sound questionnaires exist that assesses level of treatment participation, attitude, or investment beyond attendance and participation.

Given the lack of validated measures to evaluate adolescent treatment engagement beyond retention-based assessment, especially with adolescents involved in the juvenile justice system, we developed a set of questionnaires for assessing engagement in substance abuse treatment for incarcerated adolescents. The purpose of this study is to describe development and validation of the Adolescent Substance Treatment Engagement Questionnaire (ASTEQ), Teen and Counselor versions.

2. Materials and Methods

2.1. Site and treatment program

Participants were recruited at a state juvenile correctional facility in the Northeast, with charges ranging from simple truancy to aggravated assault. About 1150 teens per year are detained at the facility, about 475 teens per year are adjudicated to the facility, and annual recidivism is about 30%. Teens received group treatment as well as individualized attention (as indicated) on a variety of topics (sex-offending, drug dealing, reducing crime, developing empathy, preventing violence, anger management, etc.) provided by the facility. Teens enrolled in the research study were also randomized to receive either two sessions of individual motivational interviewing followed by 10 group sessions of cognitive behavioral therapy or two sessions of individual relaxation therapy followed by 10 group sessions of substance abuse education treatment, which included elements of 12 step programs.

Teens received substance treatment shortly after adjudication for about 60 minutes per session over about 10 weeks. Five research counselors (1 male, 4 females; all Caucasian; 1 PhD, 3 MA-level, 1 BA-level) conducted all treatment types. Alcoholics Anonymous is available on a weekly basis. Community religious organizations also have a relationship with the facility. Limited vocational programming is available for teens as are transitional services that include substance use counseling, case management, mentoring and other services. All ethical standards for protecting human subjects complied with standards of the Institutional Review Board of the University of Rhode Island and the Helsinki Declaration of 1975.

2.2. Procedure

2.2.1. Participant screening and consent

Immediately after adjudication, teens were identified by facility staff as potential candidates for the study if they were between the ages of 14 to 19 years (inclusive) and were sentenced to the facility for between 4 and 12 months (inclusive). Consent was obtained from legal guardians, and assent was obtained from adolescents. Adolescents and guardians provided permission for adolescent participation in a larger treatment outcome study, of which the current study is a part. Guardians and adolescents were informed that all information was entirely confidential, except for plan to escape, hurt self or others, or reports of child abuse.

Adolescents were included in the study if they met any of the following substance use screening criteria: 1) in the year prior to incarceration they used marijuana or drank regularly (at least monthly) or they binge-drank (≥5 standard drinks for boys; ≥ 4 for girls); 2) they used marijuana or drank in the 4 weeks before the offense for which they were incarcerated; or 3) they used marijuana or drank in the 4 weeks before they were incarcerated.

2.2.2. Assessment

The assessments consisted of 90 minutes of interview by a trained bachelors or masters-level staff member. Interviewers had about 20 hours of training with 2 hours of group and 1 hour of individual supervision per week. In-vivo observations were conducted regularly by a PhD-level project member. All assessment data were reviewed by a masters- or doctoral-level project member. Record reviews were completed following completion of the interviews.

Assessments occurred at baseline (shortly after adjudication), after the fifth and twelfth treatment sessions, and at 3 months and 6 months post release date. Adolescents received $35 for completing baseline assessment and $75 each for completing the 3 month and 6 month follow-ups.

2.3. Measures

2.3.1. Adolescent substance treatment engagement questionnaire (ASTEQ)

To develop the ASTEQ we started with the items from the Treatment Participation Questionnaire from our earlier work (see Stein et al., 2006), expanded the item pool based on interviews with incarcerated adolescents and group therapists, as well as clinical social workers and guards, and sought to provide psychometric validation. During our interviews we were provided with information on what indicates poor adolescent involvement and good adolescent involvement in group and individual substance use treatment. From this process, items were