The self-report Drug Use Disorders Identification Test—Extended (DUDIT-E): Reliability, validity, and motivational index

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Abstract

Among clients who have been screened already for drug-related problems, the Drug Use Disorders Identification Test—Extended (DUDIT-E) maps the frequency of illicit drug use (D), the positive (P) and negative (N) aspects of drug use, and treatment readiness (T). D scores correlated with *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* diagnoses among 154 heavy drug users from criminal justice and drug detoxification settings, as well as with urine test results in drug detoxification units. One-week test/retest intraclass correlation coefficients among 92 male prison inmates were .90, .78, .75, and .84 for D, P, N, and T scores, respectively. Cronbach's α were .88–.95 for P score, .88–.93 for N score, and .72–.81 for T score. Principal components analysis supported construct validity for P, N, and T scores. T scores were higher in prison treatment units than in motivational and regular units without treatment emphasis. Motivational index scores differentiated between three categories of heavy drug users; they did not differentiate between prisons and unit types, but this corresponded to unclear structural differentiation between units. © 2007 Elsevier Inc. All rights reserved.

Keywords: Self-report; Drug use; Reliability; Validity; Motivation

1. Introduction

Drug use that has escalated into abuse or dependence is a worldwide public health problem (EMCDDA, 2002; WHO, 2000). Caregivers in primary care, schools, employee assistant programs, psychiatry, and criminal justice settings are faced with the challenge of identifying drug use in clinical encounters with individual patients, as well as on the public health level. A quick assessment of the extent of drug problems can facilitate the choice and prioritization of appropriate treatment and prevention strategies in clinical, occupational, and public health contexts.

Our model for sequential clinical assessment of drug use, an adaptation and extension of the Institute of Medicine (1990 p. 250) model, involves four steps. First is a quick initial screening (generally < 5 minutes), followed by a more in-depth self-report of drug problems (still brief; about 10–20 minutes), and concluded with a broader diagnostic and exploratory person assessment (mainly by interview; 30–120 minutes). This type of assessment model can facilitate structuring of procedure prior to treatment referral. The final step in the model consists of retesting following treatment.

Choosing which instruments to use in assessing the extent of drug problems in each step often presents a challenge for clinicians.

For the first assessment step, we developed the Drug Use Disorders Identification Test (DUDIT), an 11-item self-report instrument (Berman, Bergman, Palmstierna, & Schlyter, 2005). The DUDIT is presented on one page in a user-friendly graphic design with 11 items on the front page; the back page shows a list of illicit drugs in seven categories, followed by commonly abused sedatives, hypnotics, and analgesics. Several other instruments are available for the initial assessment of drug problems: the self-report 10-item Drug Abuse Screening Test (Skinner, 1982) or the six-item UNCOPE (Hoffman, Hunt, Rhodes, & Riley, 2003), as well as brief screening interview schedules such as CAGE-AID (Brown & Rounds, 1995) or Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; Ali et al., 2002).[1] The DUDIT has three main advantages over these other instruments. Firstly, although the DAST, UNCOPE, CAGE-AID, and ASSIST instruments all offer a dichotomous yes/no response option, the DUDIT offers scaled responses on behavioral frequency for each item. Secondly, the DUDIT includes a drug list with commonly abused prescription medications for clients' and counselors' easy reference. Thirdly, the DUDIT is suitable for use in public health surveys of drug use (Berman et al., 2005).

For the second assessment step (a brief in-depth self-report of drug problems), we developed the Drug Use Disorders Identification Test—Extended (DUDIT-E), which is the focus of this article.[2] The DUDIT-E emerged during the developmental procedure for the DUDIT, which we briefly summarize below.

1.1. The DUDIT and DUDIT-E development procedure

We began the DUDIT development project with an extensive literature survey of existing screening instruments for drug-related problems, based on a search in Medline, PubMed, Psychological Abstracts, and the Social Sciences Citation Index from 1983 to 2000. The survey yielded 21 self-report instruments and 13 interview forms either wholly or partly covering drug use. Of these, we obtained 18 self-report instruments and 7 interview forms that we used as a source pool of items from which DUDIT and DUDIT-E items were later selected. A table detailing the results of the literature survey is available on request from the corresponding author.

When we launched the DUDIT development project, we were well aware of the need for a self-report instrument for a greater in-depth exploration of identified drug-related problems for the second step in our assessment model. This need was particularly acute in the criminal justice and drug detoxification settings we are clinically affiliated with. Thus, we included six "readiness-to-change" (RTC) self-report forms in the original item pool: the Readiness to Change Questionnaire (Forsberg & Göransson, 1999; Heather, Gold, & Rollnick, 1991), the Alcreadi (Carbonari, DiClemente, Addy, & Pollak, 1996), the University of Rhode Island Change Assessment Scale (URICA) (McConnaughy, DiClemente, Prochaska, & Velicer, 1983; Öberg, 2000), the Stages Of Change Readiness And Treatment Eagerness Scale (SOCRATES; Miller & Tonigan, 1996), and the Texas Christian University Treatment Motivation Scales (Knight, Holcom, & Simpson, 1994). For positive statements about drug use, we used the Consequences of Alcohol and Drug Use Questionnaire and Beliefs About Use of Substances That Induce Dependence (Rönnberg, 1995), in addition to the Swedish-language Alcohol Use Inventory—Revised—2 (AVI-R-2) (Bergman, Wennberg, Hammarberg, Hubicka, & Berglund, 2005).

Unique items from all available instruments were pooled and then classified into 13 categories. Then, based on diagnostic criteria, parallelism with AUDIT items, and RTC content, the item pool was reduced from 201 to 77 items and then reclassified into five categories. In the next step, three one-page test versions of the DUDIT were designed and tested in "think-aloud" procedures involving one-on-one interviews with 21 respondents from populations with known drug use (Lessler, 1995; Lessler & Forsyth, 1996; Schwarz & Sudman, 1996). These respondents read aloud the items in all three test versions and responded, making verbal comments on items that they did not understand or that they found inappropriate. All comments were audio-taped, transcribed, and tabulated for quantitative and qualitative analyses (Berman & Bergman, 2001). This phase resulted in two instruments: the DUDIT for initial screening, and the separate 68-item DUDIT-E ("E" stands for "extended," which pertains to extended information on drug-related problems).

1.2. The rationale behind the DUDIT-E

For the second assessment step, most available instruments generally include a large number of randomly ordered

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[1] The Texas Christian University Drug Screening questionnaire, which was developed for criminal justice settings, is another instrument that is appropriate for use in the initial screening step and as part of the second step in the assessment model described above (Peters et al., 2000; TCU, 2002). This instrument is part of a series of six instruments used for the assessment of program treatment needs in criminal justice settings. These instruments fulfill the same functions as those of the assessment model presented herein, albeit in a different order and also including a counselor rating of the respondent and a description of prior treatment experience (see www.ibr.tcu.edu).

[2] For the third step (establishment of diagnoses and assessment of broader personality attributes), examples of appropriate interview schedules are the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID) (First, Spitzer, Gibbon, & Williams, 1997), the Composite International Diagnostic Interview (CIDI) (Robins, Cottler, & Babor, 1986; Üstün et al., 1997), and the Schedules for Clinical Assessment in Neuropsychiatry (SCAN; WHO, 1999). The extensively used Addiction Severity Index (ASI) (McLellan et al., 1992) gives information on problems in seven areas of life. Interviews require staff resources that can be scarce, and self-report instruments can also be useful complements at this step.