
ARTICLES

Development and Validation
of the Alcohol and Other Drug
Identification (AODI) Scale

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ABSTRACT. Social workers and other helping professionals often have difficulty addressing client alcohol and other drug (AOD) use. The purpose of this study was to develop a measure of potential barriers social workers might experience in discussing AOD use with clients. A pool of 29 items was generated, pilot tested, and given to social work students, and to home visitors (n = 219). Exploratory factor analysis using a rotated component matrix found 14 items clustering in three factors: attitudes, worker/client relationship skills, and knowledge. All factors had acceptable internal consistency. Confirmatory factor analysis on a larger sample is needed for further validation. doi:10.1300/J160v06n03_02 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2006 by The Haworth Press, Inc. All rights reserved.]

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INTRODUCTION

The past quarter of a century has seen an explosive growth in knowledge regarding substance abuse assessment and treatment. There has also been a concomitant emphasis on the need to integrate this knowledge into educational curriculum for helping professionals who routinely have some sort of contact with clients or patients with substance abuse problems (Amodeo, 2000; Hall et al., 2000). Despite this, many who work in a variety of medical or social service settings still have difficulty with the identification and assessment of those with alcohol and other drug (AOD) use problems. Low rates of client AOD problem detection have been found among physicians and nurses (Conway & Fairbrother, 1999; Siegel et al., 2000), social workers (Kagle, 1987), and paraprofessional home visitors providing family support services (Carrilio, Packard, & Clapp, 2003; Stracka, 1998). The failure to identify or intervene in client AOD use may exacerbate clients' physical, emotional, or behavioral problems.

In a review of case files, Kagle (1987) found that social workers were reluctant to address AOD problems. Researchers reviewed a total of 100 case files from four types of agencies: child welfare, mental health, family service, and healthcare. Social workers who were responsible for the cases in the sample were also interviewed. In the written records, only five of the cases had substance abuse identified with a referral made. Interviews determined that another 27 cases might have had an AOD problem but no intervention was made. Reasons given for the lack of discussion and/or record notation with these 27 clients about their substance use indicated that the social workers believed that the substance use was not the main problem ($n = 19$), that discussing it would cause clients not to focus on their main problem ($n = 12$) and this might cause harm ($n = 8$), that available treatment for the AOD problem was ineffective ($n = 9$), that there were no good programs available ($n = 8$), and that referral to AOD programs was more appropriate to the role of the medical provider ($n = 4$).

In a study by Stracka (1998), new mothers who were identified as high risk using a two-stage screening process (Landsverk et al., 2001) were screened for AOD problems, while still in the hospital. The AOD screening process was conducted by researchers utilizing quantity/frequency measures, the CAGE and the DAST (Drug Abuse Screening Test) (Ewing, 1984; Gavin, Ross, & Skinner, 1989). Of the 247 women in the sample, 167 (68%) were identified as having an AOD problem. The mothers in the sample then participated in a program whereby they received intensive home-visiting services over a three-year

period, delivered by paraprofessionals who were to provide family support by focusing on child development issues, parenting skills, parental life course concerns, psychosocial and relationship concerns, and barrier to optimal family functioning. The home visitors received training in AOD problems and the program model assumed that AOD issues would be addressed during the course of providing intensive family support services to these high-risk families. However, when a content analysis of case files was implemented to examine what actually took place in the program, in only 51 (21%) of the cases was there any evidence that the home visitor had noted or responded to issues related to AOD use (Straka, 1998).

Another study of home visitors working with high-risk families found that utilization of AOD screening instruments may be strongly affected by organizational context, leadership, and worker attitudes (Carrilio et al., 2002; Carrilio, Packard, & Clapp, in press). In this study of a 17-site demonstration and evaluation project of home visiting, a random sample of 900 case files were selected and reviewed for compliance with data collection. The program protocols called for the administration of two AOD-screening scales that were to be administered as part of a package of instruments used for baseline and periodic follow-up assessment. Home visitors received intensive training in issues of AOD use related to the families in the project, and it was expected that home visitors would identify and respond to AOD issues in their caseloads. The use of the standardized AOD-screening tools was intended to aid the identification of AOD issues. The study found that only 38.3% of the clients received the required baseline and follow-up assessments, indicating that home visitors were not systematically identifying or assessing AOD use. The authors speculated that low rates of utilization of the AOD-screening instruments may have been related to lack of supervisor support and/or attitudes of home visitors.

Reluctance to identify or intervene in client AOD use may be due to negative attitudes toward substance abusers or to a lack of knowledge of how to handle client denial and anger that may be engendered when the issue is raised (Dore, Doris, & Wright, 1995; Griffin, 1991). Negative attitudes may be based on beliefs that AOD problems are self-inflicted (Ritson, 1999), that treatment is ineffective (Miller, Sheppard, & Magen, 2001), or that alcoholics are difficult and troublesome (Howard & Chung, 2000a,b,c). Unwillingness to identify AOD problems may also be due to the worker's own problem with substance use (Miller, Sheppard, & Magen, 2001) or drinking problems in their family of origin (Gassman, 1997).

Failure to address client/patient AOD problems may also be related to role or job function. Rowland et al. (1988) surveyed hospital physicians who indicated that they felt that it was not their role to discuss AOD use with patients and did not routinely screen patients for substance abuse problems. Another

survey of probation and parole officers found general support for integrating AOD discussions regarding relapse prevention into work with clients, however, most felt that time constraints would keep them from doing this (Herie, Cunningham, & Martin, 2000).

Purpose of the Study

One way to begin addressing the apparent avoidance of AOD issues by helping professionals is to gain a better understanding of some of the underlying attitudes and barriers that may be operating. Several measures have already been developed to identify attitudes of helping professionals toward drug users or alcoholic clients, such as the Substance Abuse Attitude Survey (SAAS) (Chappel, Veach, & Krug, 1985) and the Drugs and Drug Users' Problems Perceptions Questionnaire (DDUPPQ) (Watson et al., 2003). Kranz (2003) recently developed and validated a 43-item scale to measure social workers' self-efficacy of their substance abuse knowledge and skills. This scale measured social workers' confidence in six practice areas of AOD treatment. Our scale is different from all of these, however, in that it attempts to measure attitudes as well as other barriers to initiating even beginning discussions of client AOD use.

The purpose of this study was to develop and begin to validate a measure of worker discomfort with addressing clients' AOD use. Based on a review of the literature, barriers to addressing client AOD use include negative attitudes toward substance abusers and treatment (Ritson, 1999), lack of supervisor or agency support (Carrilio et al., 2002), perception of role function (Rowland et al., 1988), lack of clinical skill, and/or lack of knowledge of how to discuss clients' substance abuse (Amodeo & Fassler, 2000). Identifying areas where social workers and other helping professionals are experiencing discomfort may help to recognize training and educational needs as well as to measure changes in attitudes or behaviors for those who participate in such training.

METHODS

Phase I: Item Generation

Based on the review of the literature, our experiences in addictions work and AOD education with social work students and community practitioners, and feedback from several current AOD practitioners, we generated a list of 29 items that may reflect worker discomfort or comfort. The items covered the proposed variables listed earlier. Items were placed into a Likert-scale format (1 = Strongly agree to 4 = Strongly disagree).

Phase 2: Item Refinement and Selection

The items were then presented to 25 students in a graduate social work class on Substance Abuse Identification and Intervention. Students were provided information about the study and were asked to complete the measure and to note any concerns or questions they had with individual items. Based upon their feedback about unclear or repetitive questions and further discussion among the researchers, we reduced the item pool to 27 items. We also added items that asked demographics (gender, race, and level of education) as well as experience in working with AOD clients. Participants were asked to estimate what percentage of their current clients had AOD problems. Further, they were asked to rate their previous training in AOD identification and in AOD intervention. Ratings were placed on a scale of 1 (No background or training) to 4 (Substantial training or coursework).

Phase 3: Scale Administration

The final version of the Alcohol and Other Drug Identification (AODI) scale was administered to 75 first-year MSW students (who would not be eligible to enroll in the Substance Abuse course as it is a second-year course) enrolled in four sections of a research course and to 30 undergraduate social work students enrolled in a senior year research course. The scale was also administered to 126 home visitors participating in a 17-site statewide demonstration and evaluation project. The three groups were selected based on the assumption that they had various levels of expertise with AOD identification. Sixty-four (64) graduate students, 29 undergraduate students, and 126 home visitors completed the survey, giving a response rate of 95%.

Table 1 provides the demographic description of the sample. The sample was predominantly female (86%) and half (50%) were Caucasian, with over a third Hispanic (38%). African Americans comprised 7% of the sample followed by Asian Americans (6%). Not quite half of the sample (43%) had a college degree and 23% had a graduate degree. The rest had either a high school degree (12%) or some college (22%).

We asked respondents to report how much previous training they had experienced in both identifying AOD problems and in intervening in AOD problems. Half of the sample reported they had "None" or "A little" training in AOD identification with the rest of the sample evenly reporting "Some" training (23%) or "Quite a bit" (26%). The results were similar when the respondents were asked to report on their training in AOD intervention. Respondents estimated that a mean of 39% ($SD = 31.5$) of their current clients had AOD problems.

TABLE 1. Demographic Description and AOD Training of Sample (n = 219)

	n	%
Gender		
Females	188	85.8
Race		
White	109	49.8
Hispanic	83	37.9
African American	15	6.8
Asian American	12	5.5
Education		
High school degree	27	12.3
Some college	47	21.7
College degree	95	43.4
Graduate degree	50	22.8
Training in identifying AOD problems: (n = 215)		
None	34	15.8
Very little (several hours)	76	35.3
Some (several days training)	60	23.4
Quite a bit (a course or more)	55	25.6
Training in AOD intervention: (n = 212)		
None	37	17.4
Very little (several hours)	62	29.2
Some (several days training)	57	26.9
Quite a bit (a course or more)	56	26.4
Percentage of clients with AOD problems:		
	M = 36.65 SD = 31.54 Range 0-100%	

RESULTS

Data were analyzed in two stages. First, we computed a series of principal components analyses with orthogonal rotation. Items not loading on any factor ($> .3$) were dropped from subsequent analyses. Eigenvalues ranged from 5.3 to 1.3 (values above 1.0 were considered meaningful). Using orthogonal rotation, the final factor solution converged in five iterations. Factor loadings ranged from .79 to .40.

The final three-factor solution was derived in the third analysis. The final solution accounted for 62.3% of the variance in the model. The KMO-test (.845) and Bartlett's Test of Sphericity ($\chi^2 = 1301.7$, $df = 91$, $p < .001$) suggested the data adequately fit the model. Eigenvalues for each factor exceeded 2.5.

During the second phase of analysis, we created indexes for each component by summing the variables loading on each factor for each case (Table 2). We assessed the internal consistency of each factor using the Cronbach's alpha algorithm in SPSS v11.0.

The first factor-based index reflected attitudes toward working with AOD using clients ($\alpha = .79$). The second factor-based index reflected client/worker relationships ($\alpha = .86$). The final factor-based index reflected skills and knowl-

TABLE 2. Rotated Component Matrix

Items:	Rotated Component Matrix		
	1	2	3
Q2: Addressing clients' substance use is not worth the effort, as they are not going to change their use anyway.	.593		
Q3: Addressing clients' substance use is a problem for me as it might bring in CPS.		.639	
Q4: I avoid bringing up substance use issues with my clients because they might get offended with me.		.817	
Q5: I avoid bringing up substance use issues with my clients because it might make them angry.		.881	
Q6: I don't like to bring up substance use issues with my clients because it would ruin my relationships with them.		.828	
Q7: There's no point bringing up substance abuse issues with my clients as there are no treatment programs available.	.662		
Q8: I don't address substance use issues because my supervisor never wants to talk about them in supervision.	.671		
Q9: There is no point in discussing substance use issues with clients as treatment for substance abuse is ineffective.	.830		
Q10: I can recognize a client under the influence of alcohol.			.754
Q11: I can recognize a client under the influence of marijuana.			.855
Q12: I can recognize a client under the influence of Methamphetamine.			.837
Q13: I can recognize drug paraphernalia when I see it in clients' homes.			.799
Q22: There is no point in discussing substance use with clients as they will always lie about their substance use.	.657		
Q25: It's not my job to identify or intervene in client substance use.	.535		

edge related to identifying client AOD use ($\alpha = .84$). When collapsed into a single index reflecting capacity to work with AOD affected clients, the alpha value was .86.

DISCUSSION

This study conducted a preliminary validation of an AOD identification scale. The original 29 items were reduced to 14. We identified three internally consistent factors that supported previous findings that practitioner willingness to discuss AOD use with clients may be related to attitudes toward AOD users, attitudes toward AOD treatment, and knowledge regarding the recognition of the basic physical effects of AOD use. Another factor identified in this scale was that lack of discussion regarding client AOD use may be due to workers' perceptions that such discussions upset or anger clients. This may be because social workers often work with involuntary clients who are resistant to even easy questions. Thus some social workers may work at making their interactions go as smoothly as possible (Hobman, Klempeter, & Loughran, 2005).

This scale contributes to the pool of AOD instruments in that it not only assesses worker attitudes that may be a barrier to discussion of AOD use with clients but knowledge and skill variables as well. It is relatively short, easy to administer and score, and could be used in both research studies and training to determine barriers to identification of AOD problems. Researchers who are finding lower than expected rates of AOD use in client populations, such as in the studies of home visitors discussed earlier (Carrillo et al., 2002; Stracka, 1998), could administer the AODI to workers in order to determine why a low detection rate might be occurring.

For training purposes, the use of the AODI may be helpful to assess social workers' and other clinicians' comfort level in discussing AOD issues and training could be targeted to those areas where there seems to be the most discomfort. Training could address attitudinal issues such as providing an overview of the efficacy of treatment and assigning attendance at an Alcoholics Anonymous meeting. Information on the effects of drugs, both during and after use and a hands-on demonstration of drug paraphernalia may help to increase worker recognition. Finally, training on communication skills that are non-confrontational, such as Motivational Interviewing (Miller & Rollnick, 2002), may provide skills that can increase worker confidence in discussing AOD use with clients.

The limitations of this study are that we utilized a convenience sample and that we have no measure of the clients' actual AOD use or problems from use, nor did we use any comparable measures of the factors with which we could

have correlated the results. The strengths include that the sample was diverse-rationally, educationally, and in their experience in previous AOD training. The next phase of research should include further confirmatory factor analysis in a larger random sample of social workers, and the inclusion of global measures of the subfactors.

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