

PSYCHOMETRIC PROPERTIES OF THE GENERAL ALCOHOLICS ANONYMOUS TOOLS OF RECOVERY (GAATOR 2.1)

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INTRODUCTION

Twelve-step therapy has been demonstrated to be equally effective as more research supported therapies (e.g., PMRG, 1997a, 1997b, 1998a; 1998b; Ouimette et al., 1997, 1998), and mutual-help participation is generally associated with reductions in drinking (Emrick et al., 1993). Several 12-step specific assessment tools have been developed to better understand change processes in AA (e.g., Tonigan et al., 1996; Humphreys et al., 1998). Few of these assessments, however, focus on the spiritual development of AA members, a core aspect to sustained abstinence according to the core AA literature (AA, 1976, 1981). This study evaluated the psychometric properties and stability of a measure intended to assess adoption of prescribed 12-step principles and practices, most notably as they related with spiritual development.

METHODS

One hundred-eight treatment resistant substance abusers (n = 56 alcohol, n = 52 drug dependent) were recruited into one of two clinical trials examining the relative effectiveness of the Community Reinforcement and Family Training approach. The rationale and findings of these trials have been reported elsewhere (e.g., Miller et al., 1999). The General Alcoholics Anonymous Tools of Recovery (GAATOR) was administered at intake and follow-up in each study, and questionnaire responses were combined across the two samples for the psychometric analyses presented in this study.

Ninety-eight clients provided complete responses to the GAATOR administered at intake (91% of total sample). On average, substance abusers reported that 29% (SD = .34) of the ninety days before intake were alcohol or illicit drug free days, with the median percentage of day's abstinent indicating substantially higher frequency of use, 10% abstinent days. A majority of the sample was male (91%), and the average age of participants was 35.44 (SD = 11.91). About half of the sample was non-Hispanic White (54%) and 28% of the sample was currently unemployed.

The GAATOR (2.1) has 24-items, and each item asks a respondent to indicate whether a 12-step related event/belief has happened to them (i.e., Definitely True, True, False, Definitely false). Item content is specifically 12-step in focus but not program specific (e.g., AA, NA, CA, etc...). Prior to analyses all items were recoded to reflect negation of an item, 0 (Definitely false, false), item agreement, 1 (True), or strong endorsement of an item, 3 (Definitely true).

Copies of the GAATOR 2.1 can be obtained directly at the CASAA website: CASAA.UNM.EDU

PSYCHOMETRIC ANALYSES

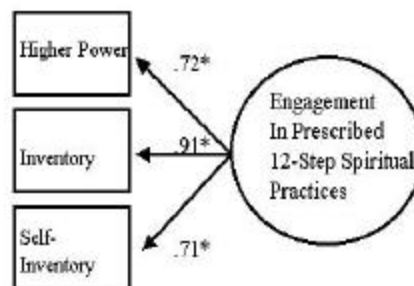
Principal Component Analysis (PCA) was conducted (N = 98) on the recoded 24-item GAATOR 2.1 collected at intake. The PCA used

orthogonal rotation, with principal components defined by Eigen values larger than 1.0. Five components were identified, accounting for 68% of the variance. The fourth and fifth components, however, each consisted of only two items apiece, and examination of the scree plot suggested that these two components could be deleted (58% variance accounted for after deletion of 4th and 5th components). The first component, *Higher power* (9 items), accounted for the lion share of item covariance, and included items such as, 'I have believed that awareness of my Higher power is essential for my sobriety', and 'I have turned my will and life over to my Higher Power'. The second component, *Inventory* (6 items), included specific prescribed behaviors such as sharing of personal inventory (step 5), making of amends, and 'I have shared my experience strength and hope with others (12th step)'. All items in this component involved interactions with others. The third component, *Self-Inventory* (5 items), also consisted of specific 12-step prescribed practices but of an introspective nature, e.g., 'Writing down my all my shortcomings has helped my sobriety', 'I have made a list of my resentments', and 'I have taken a daily inventory of my behavior'.

Cronbach alpha were computed for the Higher Power, Inventory, and Self-Inventory scales and were .92, .87, and .79, respectively. Study of item squared correlations with scale scores without the item under consideration included failed to indicate the presence of 'weak' scale items.

Analyses described thus far were based on data collected at intake, and confirmatory factor analysis (N = 64) was done using data collected at the three-month follow-up to determine the stability of the observed GAATOR scales. Using a maximum likelihood estimation method and allowing the three parameter estimates to vary between the observed scales and latent construct, the CFA model had an excellent fit, CFI = .99, and each of the measurement paths were positive and significant (see Figure 1).

FIGURE 1.



DISCUSSION

The GAATOR was originally developed to measure prescribed 12-step practices and beliefs pertaining to spirituality. The 24-item questionnaire is intentionally non-specific in regards to particular 12-step programs, and psychometric study of alcohol and drug dependent individuals indicate that the GAATOR (version 2.1) has three distinct scales with good-to-excellent internal item consistency.

Pre-post replication of GAATOR scales has both measurement and substantive implications. On one hand, the three scales of the GAATOR appear to be relatively stable across time. Thus, while actual scale scores may vary with time the dimensions included in the GAATOR appear to consistently represent a larger construct that may be labeled, 12-step spiritual practices. Measurement of the spiritual practices of 12-step exposed individuals is critical for understanding what aspects of prescribed behaviors predict positive outcome, and for evaluating the effectiveness of 12-step based therapies. Currently, few measures are available for assessing the extent and nature in which 12-therapy is successful in engaging clients into 12-step programs, and there are even fewer assessments that examine client engagement in prescribed 12-step spiritual practices.

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