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Evaluating alcoholics anonymous sponsor attributes using conjoint analysis☆

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HIGHLIGHTS

- Participants are 225 adults experienced with Alcoholics Anonymous sponsorship.
- Exploratory investigation to better understand qualities that may be more indicative of effectiveness
- Hypothetical sponsors ranked in attractiveness with attributes evaluated with conjoint analysis
- Confidentiality differences had the greatest potential influence while knowledge had the least.

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ABSTRACT

Alcoholics Anonymous (AA) considers sponsorship an important element of the AA program, especially in early recovery. 225 adult individuals who had experience as either a sponsor, sponsee, or both, participated in a hypothetical sponsor ranking exercise where five attributes were varied across three levels. Conjoint analysis was used to compute part-worth utility of the attributes and their levels for experience, knowledge, availability, confidentiality, and goal-setting. Differences in utilities by attribute were found where confidentiality had the greatest overall possible impact on utility and sponsor knowledge had the least. These findings suggest qualitative differences in sponsors may impact their effectiveness. Future research on AA should continue to investigate sponsor influence on an individual's overall recovery trajectory.

A large segment of the adolescent and adult population of the United States meet criteria for substance use disorder (SUD) with alcohol or other drugs (AOD). The 2013 National Survey on Drug Use and Health (NSDUH) approximated 21.6 million individuals or nearly 9% of the population aged 12 or older met the DSM-IV criteria for abuse or dependence of AOD (Substance Abuse and Mental Health Services Administration (SAMHSA, 2014). Of those individuals reporting treatment for SUD (4.0 million in 2013), 57% or 2.3 million utilized self-help groups (SHG) (SAMHSA, 2014). The NSDUH defines SHG as non-professionally led groups including or similar to Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) (SAMHSA, 2014). Since SHG are a dominate treatment protocol their efficacy has significance for overall SUD outcomes.

Several long term studies suggest that AA involvement is related to higher rates of abstinence, fewer drinking problems, greater self-efficacy, and better social functioning (Magura, Clelland, & Tonigan, 2013; Moos & Moos, 2006; Moos, Schutte, Brennan & Moos, 2010). Weekly meeting attendance or greater was also found to be predictive of higher odds of abstinence for both Narcotics Anonymous (NA) and AA over a five year study (Gossop, Stewart, & Marsden, 2008). Using an epidemiological causality model, Kaskutas (2009) matched current research studies and findings for AA effects arguing substantive evidence for AA efficacy.

Sponsorship functions an important element of the AA paradigm. The sponsor provides information on AA, acts as an empathetic friend, and introduces the sponsee to others in recovery. Finding a sponsor is especially encouraged for a newcomer to AA as this gives the newcomer a reliable and consistent source of support (AA, 2010). Research on sponsorship has focused generally on the presence or absence of a

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sponsor as a predictor of AA affiliation or SUD outcomes (Witbrodt, Kaskutas, Bond, & Delucchi, 2012; Young, 2012).

Research suggests sponsorship represents an important aspect of AA affiliation. This relationship has been documented in studies of AA involvement (Bond, Kaskutas, & Weisner, 2003; Majer, Jason, Ferrari & Miller, 2011; Subbaraman, Kaskutas, & Zemore, 2011) and the relationship with future drug and alcohol usage (Cloud, Zeigler, & Blondell, 2004; Kingree & Thompson, 2011; Tonigan & Rice, 2010; Witbrodt, Kaskutas, Bond, & Delucchi, 2012). In addition, having a sponsor significantly reduced the likelihood of an individual dropping out (Kelly & Moos, 2003), and the initiation of AA helping behaviors was associated with actively being under sponsor stewardship (Pagano, Zemore, Onder, & Stout, 2009).

Sponsorship also has risks. AA stresses several pitfalls including: 1) dependency, 2) misuse of perceived authority, 3) misuse of a counseling role, and 4) imposition of a personally biased AA worldview. All of these may put the sponsee at risk for successful transition to sobriety (AA, 2010). The risk of dependency is emphasized as a natural characteristic of an individual with SUD (Brown, 1995). Thus, there is reason to believe sponsorship qualities may affect recovery outcomes.

The use of conjoint analysis in evaluating preferences in the health care field is relatively nascent but expected to grow (Bridges, Kinter, Kidane, Heinzen, & McCormick, 2008). Recent studies in health have included an evaluation of consumer preferences for HIV test attributes (Phillips, Maddala & Johnson, 2002), research on individuals' preferences for cigarette and alcohol cessation (Flach & Diener, 2004), an investigation of the economic value of informal care (van den Berg, Maiwenn, van Exel, Koopmanschap, & Brouwer, 2008). Conjoint methods have also been used in research in quality adjusted life years (QALY) (Flynn, 2010). Recently a task force representing the International Society for Pharmacoeconomics and Outcomes Research reported on a standard checklist for good practices when using and reporting conjoint analysis in research (Bridges, Hauber, Marshall, Lloyd, Prosser et al., 2011).

Conjoint analysis is grounded in conjoint measurement theory, first mathematically developed by Luce & Tukey (1964). This theory allows for the use of ordinal preferences to be decomposed into relevant attribute part worths or marginal utilities. The general idea for psychology is that most people make relative preference decisions based on a bundle of attributes conjointly (or simultaneously) evaluated. This holistic evaluation can then be used to calculate relative importance weights for observed attributes (Krantz & Tversky, 1971). For example, individuals choose cars, but cars have an array of attributes that may influence individuals' preferences—e.g. safety, reliability, resale value, performance, mileage, etc. Conjoint analysis uses an ordinal ranking of car preferences (e.g. Toyota Corolla, Ford Mustang) to estimate the part worth utilities and tradeoffs between attributes (e.g. mileage vs. performance).

The general model for an additive conjoint model utilizes an observed ranking, rating, or choice dependent variable as a function of a combination of attributes. In a basic formulation, it is an ANOVA with an ordinal dependent variable. This formulation allows for nominal, ordinal, or interval attributes (e.g. a car that is red, goes fast, attracts attention, and gets 27 mpg). In addition, the associated part worth utilities do not have to assume a monotonic form (e.g. a fast car may have a part worth utility greater than a slow car, but a super-fast car may have a lower part worth utility than a slow car). Conjoint analysis is most often used to evaluate consumer preferences and attribute tradeoffs (e.g. does being rich make up for not having a sense of humor?).

Monte Carlo simulation studies of conjoint analysis have demonstrated the procedure to be superior to linear modeling (forcing the assumption of monotonicity), robust with respect to the dependent variable measure (ranking, rating, and choice — although ranking is the theoretically better measure), and the assumption of orthogonal designs (e.g. attribute independence) (Carmone, Green, & Jain, 1978; Elrod, 1992). The present study used ranking data on hypothetical Alcoholics Anonymous sponsor attribute profiles to evaluate part worth utilities of availability, experience, knowledge, confidentiality, and goal-setting behavior.

This exploratory investigation focused on the characteristics of an effective AA sponsor for an individual with SUD early in recovery (working their initial 12 step program). Five attributes were chosen to investigate based on their relationship to specified functions described by AA (AA, 2010), findings from sponsors that were generally supportive of the AA model (Whelan, Marshall, Ball, & Humphreys, 2009) and confidentiality as a risk (Brown, 1995). These five attributes were experience with AA, knowledge of AA, availability, level of confidentiality, and the structuring of goals or goal-setting. The major research goal was to measure the utility profiles of these five attributes – experience, knowledge, availability, confidentiality, and goal-setting – and their relative part worths to better understand possible differences in sponsorship effectiveness. In addition, did these utility profiles differ by sex (female/male) or current role (sponsor/sponsee) and if so, what were these differences?

1. Method

This investigation utilized a convenience sample of anonymous adult individuals in recovery from SUD in a cross-sectional, self-report design that was administered at the 2010 World Oxford House Convention. Oxford House (OH) is an operating model of a communal, democratically governed recovery residence for individuals with SUD. Six to 10 same sex residents share a rental home without limits on length of stay. The major house rules require residents to stay clean and sober, cover their share of expenses, maintain order, and share in house work (Jason et al., 2007). Individuals in residency are encouraged to participate in recovery related activities such as AA meetings. Oxford House is listed on SAMHSA's Registry of Evidence-Based Programs and Practices (SAMHSA, 2011).

1.1. Participants

109 (48.2%) females and 116 (51.3%) males participated in the study. White, not of Hispanic origin ($n = 163$, 72.1%) and African Americans ($n = 41$, 18.1%) comprised most of the sample. The average age was 40.9 years ($Md = 41.0$, $SD = 10.7$, minimum age = 20, maximum age = 72) with a median educational level of some college (35.1% of the sample). High school equivalency was achieved by 94.3% of the sample. Nearly fifty percent of the individuals were single, never married (47.6%) and 42.6% were separated or divorced.

Approximately 4 out of 5 participants currently lived in an Oxford House (80.5%) with the balance being mostly Oxford House alumni. The current average length of stay was 19.5 months ($Md = 12.0$, $SD = 20.7$). The average length of abstinence was 47.5 months ($Md = 29.5$, $SD = 54.4$). All of the participants for these analyses identified as having been a sponsor, sponsee, or both. Of the 225, 109 had been or were sponsors.

1.2. Measures

For this study, the conjoint method involved participants ranking hypothetical sponsors, each of whom was defined by their measures on five different characteristics. A participant was given a set of nine same sex sponsors (e.g. females were given female hypotheticals, males were given male hypotheticals) which differed on the bases of experience, knowledge, availability, confidentiality, and goal-setting behavior. Each participant then ordered these nine sponsors in their ranking of perceived sponsor effectiveness. The nine cards that represented a set of sponsors had attributes that were determined by a design of experiments (DOE). The DOE structured the evaluation of the possible attribute and level combinations (243 possibilities given three levels and five attributes) as three sets of nine sponsors (27 unique combinations). Each participant was randomly allocated one