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The effect of social desirability on reported motivation, substance use severity, and treatment attendance

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Abstract

Research has not consistently supported an association between stage of change and substance abuse treatment retention. This study examined whether social desirability response bias could help explain why. Participants (N = 200) recruited from an outpatient program completed the University of Rhode Island Change Assessment Scale (URICA), Treatment Readiness Tool (TREAT), Marlowe–Crowne Social Desirability Scale, and other measures. Number of treatment groups attended was collected from program records. In bivariate analyses, neither the URICA nor the TREAT was related to attendance. However, higher social desirability was strongly associated with lower URICA (but not TREAT) total scores, and in a multivariate path model, a moderately strong association emerged between higher URICA scores and greater treatment attendance when accounting for social desirability. Higher social desirability was also an independent predictor of greater treatment attendance and was strongly associated with lower Addiction Severity Index alcohol, drug, and psychiatric severity. Results underline a critical problem in measuring motivation and problem severity that has been largely neglected.

Keywords: Social desirability; Treatment attendance; Treatment retention; URICA; Stage of change

1. Introduction

Treatment motivation is a critical limiting factor in the delivery of substance abuse treatment and has received substantial research attention. Nevertheless, to date, the dominant measures of treatment motivation—that is, the stage of change scales—have proven to be surprisingly poor predictors of retention. This study examines whether socially desirable responding might be responsible for attenuating relationships between existing stage of change scales and treatment retention, focusing on the University of Rhode Island Change Assessment Scale (URICA; McConnaughy, DiClemente, Prochaska, & Velicer, 1989) and Treatment Readiness Tool (TREAT; Freyer et al., 2004). I begin by reviewing the research on stage of change scales and social desirability.

1.1. Stage of change scales and treatment retention

In the 1980s, a number of new models and scales of treatment motivation began to surface, all premised on the assumption that individuals progress through distinct stages in their motivation to change and theoretically grounded, in large part, in the transtheoretical model (TTM) of change (DiClemente & Prochaska, 1998; Prochaska & Norcross, 2001). Some of the scales, collectively known as "stage of change" scales, have become very well recognized, including the URICA (McConnaughy et al., 1989), Stages of Change Readiness and Treatment Eagerness Scale (Miller & Tonigan, 1996), Readiness to Change Questionnaire (Rollnick, Heather, Gold, & Hall, 1992), and TREAT (Freyer et al., 2004). Empirical work on these scales has helped to identify some important influences on the motivation to seek help and has helped spur research on motivational interviewing, an intervention with efficacy comparable to other evidence-based treatments even in small doses (Carey, Scott-Sheldon, Carey, & De Martini, 2007; Deas, 2008; Lundahl & Burke, 2009; Vasilaki, Hosier, & Cox, 2006).

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Despite these successes, however, research indicates weak and inconsistent associations between stage of change scales and treatment retention.

Although select studies have found that stage of change scales do predict treatment seeking and retention and that matching intervention to stage of change can improve outcomes (DiClemente & Prochaska, 1998; Prochaska & Norcross, 2001), many studies have produced null and contrary results (e.g., Aveyard et al., 1999; Crane et al., 1998; Farkas et al., 1996; Greene & Rossi, 1998; Lancaster et al., 1999; Naylor, Simmonds, Riddoch, Velleman, & Turton, 1999; Project MATCH Research Group, 1997; Steptoe et al., 1999; Whitelaw, Baldwin, Bunton, & Flynn, 2000). Pantalon and Swanson (2003) recently found, for example, that participants scoring lower on the URICA showed greater (not less) treatment adherence than high scorers, attending more therapeutic groups while hospitalized and more clinic appointments during their first month postdischarge. Reviewers of research on the stage of change/TTM model have thus expressed serious concerns over both the findings and the methodological limitations associated with that work (Ashworth, 1997; Bandura, 1998; Davidson, 1998; Migneault, Adams, & Read, 2005; Sutton, 1996b; Whitelaw et al., 2000).

It is not yet clear why the results for stage of change scales have been so disappointing. Critics have often focused on perceived weakness in the premise of distinct stages of motivational readiness (Bandura, 1998; Davidson, 1998; Sutton, 1996b). Indeed, the purported stage structure of motivation has been largely contradicted by the evidence (Davidson, 1992; Davidson, 1998; Littell & Girvin, 2002; Sutton, 1996a).[1] This suggests that item wording of associated scales (which is explicitly tailored to "stage") is inappropriate and that allocating individuals to stages needlessly sacrifices variability in motivation. Application of the stage of change scales to treatment retention per se is also inconsistent with the principle of compatibility (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975), which suggests that an attitude will be predictive of behavior only to the extent that both constructs are measured at compatible levels of specificity. Because the stage of change scales typically focus on global attitudes toward change rather than attitudes toward completing treatment in a given time frame at a given program, it makes sense that the scales are poor predictors of that specific behavior (Zemore, Ajzen, & O'Hearn, 2011).

One additional possibility, though, is that self-presentational biases, and particularly the motivation to respond in a socially desirable manner, have muddied associations between stage of change scales and treatment retention. If so, then accounting for the distortions caused by socially desirable responding could strengthen associations between self-reported stage of change and treatment retention.

[1] In fact, it has been argued that stage theories in psychology are falsified more or less as a rule, excepting those in the domain of human development (Bandura, 1998; Davidson, 1998).

1.2. Social desirability

Social desirability is an important, yet often neglected, issue in drug and alcohol research. Social desirability, or "faking good," is an individual difference variable and response bias reflecting the need to "obtain approval by responding in a culturally appropriate and acceptable manner" (Crowne & Marlowe, 1960, p. 350). Although social desirability has received little attention in the alcohol field, a few studies have shown that social desirability affects responses to alcohol and drug consumption and harms questions considerably. For example, a large general population survey found that higher social desirability, measured using the Marlowe–Crowne Social Desirability Scale (MC-SDS; Crowne & Marlowe, 1960), was a moderately strong predictor of lower self-reported alcohol and drug use (Welte & Russell, 1993). Another study, again using general population data, found that higher social desirability predicted substantially lower odds of self-reported (a) driving after drinking and (b) risky driving style generally (Schell, Chan, & Morral, 2006). Mirroring these results, two parallel studies on undergraduate drinkers (Davis, Thake, & Vilhena, 2010) found that those high on impression management, a related construct, reported 20%–30% less consumption and were about 50% less likely to report risky drinking than low impression managers. The second study (same article) also found that high impression managers reported 30%–50% fewer acute harms following a drinking episode and that effects maintained even after controlling for trait impulsivity/constraint.

Social desirability may also affect how individuals answer questions on motivation to change, although it is hard to predict *prima facie* how. On the one hand, pressures from treatment providers could cause people high on social desirability to exaggerate their willingness to change. On the other, stigma associated with alcohol and drug addiction could cause this same group to diminish their problems. Both effects could also obtain simultaneously: Among those high on social desirability, one subset may exaggerate their motivation to change, whereas another may seek approval by diminishing it. Further, the effects of social desirability could depend on both the scale characteristics and context of administration: Some items and contexts (e.g., face-to-face vs. computerized interviews) may be especially like to elicit biased responding. Whatever the case, to the extent that social desirability distorts measurement of motivation to change, it could dampen or alter the observed relationships between stage of change scales and treatment attendance.

A related issue is that social desirability could itself directly impact treatment retention. Theoretically, a desire for social approval could either contribute to or undermine treatment retention, depending on whether attendance is seen by the client as socially desirable, neutral, or stigmatizing. Again, there is almost no work on this question. In an exception, one (dated) study, sampling 62 alcohol-dependent males, found that individuals completing