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Predictors of changes in alcohol-related self-efficacy over 16 years

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Abstract

Self-efficacy is a robust predictor of short- and long-term remission after treatment. This study examined the predictors of self-efficacy in the year after treatment and 15 years later. A sample of 420 individuals with alcohol use disorders was assessed five times over the course of 16 years. Predictors of self-efficacy at 1 year included improvement from baseline to 1 year in heavy drinking, alcohol-related problems, depression, impulsivity, avoidance coping, social support from friends, and longer duration of participation in Alcoholics Anonymous (AA). Female gender, more education, less change in substance use problems, and impulsivity during the first year predicted improvement in self-efficacy over 16 years. Clinicians should focus on keeping patients engaged in AA, addressing depressive symptoms, improving patient's coping, and enhancing social support during the first year and reduce the risk of relapse by monitoring individuals whose alcohol problems and impulsivity improve unusually quickly. Published by Elsevier Inc.

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1. Introduction

Alcohol dependence is often a chronic and relapsing condition, and a full understanding of this disorder is only possible when it is examined over the long term (McLellan, Lewis, O'Brien, & Kleber, 2000). Consistent with this conceptualization, many current psychosocial treatments of drug and alcohol dependence reflect the importance of monitoring and treating substance use over a prolonged period (McKay, 2001, 2005). These treatment approaches focus on the long-term monitoring of identified risk factors to help patients decrease the likelihood of relapse. One factor commonly targeted in long-term monitoring interventions is self-efficacy or an individual's confidence in avoiding problematic alcohol use (Bandura, 1982, 1997; DiClemente, 1986; Moos, 2007).

Self-efficacy is hypothesized to determine whether, and under what circumstances, individuals will experience a relapse (DiClemente, 1986; Maisto, Carey, & Bradizza, 1999; Marlatt & Gordon, 1985). Consequently, many drug and alcohol treatments are explicitly designed to target and improve self-efficacy (Witkiewitz & Marlatt, 2004). Broad support for the role of self-efficacy as a determinant of positive treatment outcome has been found in alcohol- and drug-dependent patients (Allsop, Saunders, & Phillips, 2000; Goldbeck, Myatt, & Aitchison, 1997; Miller & Longabaugh, 2003; Rychtarik, Prue, Rapp, & King, 1992; Stephens, Wertz, & Roffman, 1993). For example, Ilgen, McKellar, and Tiet (2005) compared measures of self-efficacy to other measures of alcohol use and psychosocial functioning; high self-efficacy was the single strongest predictor of abstinence from drug and alcohol use 1 year after treatment. Self-efficacy also predicts positive treatment outcome at longer intervals ranging from 3 to 16 years (Moos & Moos, 2006).

The consistent relationship between higher self-efficacy and better substance use disorder (SUD) treatment outcomes has led some researchers to explore whether specific treatment (e.g., cognitive–behavioral therapy vs. 12-step-

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oriented therapy) differentially influences self-efficacy. Although self-efficacy tends to increase during formal treatment (Ilgen et al., 2005; Stephens, Wertz, & Roffman, 1995), such increases do not appear to be influenced by treatment type (DiClemente et al., 2001; Litt, Kadden, Stephens, et al., 2005; Project MATCH Research Group, 1997; Stephens et al., 1993). In a recent study, (Glasner-Edwards et al. 2007) found that patients with SUD with concomitant depression randomized to cognitive–behavioral therapy or 12-step facilitation showed comparable improvement in self-efficacy and that improvement in self-efficacy was related to better outcomes for both groups.

To the best of our knowledge, however, only a handful of studies have explored predictors of posttreatment self-efficacy other than type of treatment, and no studies of which we are aware have examined long-term predictors of the course of self-efficacy. Stephens et al. (1995) investigated predictors of self-efficacy for patients with marijuana use disorder and found that lower frequency of marijuana use, less temptation to use, higher likelihood of coping effectively with temptation, less perceived stress, and less contact with other substance users were associated with higher self-efficacy at the end of treatment. In a study of 2,000 male patients in the Department of Veterans, Ilgen, McKellar, and Moos (2007) found that more years of education, less severe substance-related problems, higher confidence in abstinence as judged by a treatment provider, and greater engagement with skills training during treatment predicted more self-efficacy 1 year after treatment. Connors, Tonigan, and Miller (2001) found that more participation in Alcoholics Anonymous (AA) predicted posttreatment self-efficacy in both outpatient and aftercare patients. An additional study of the same data set found that the pattern of results held for Type A and Type B alcohol-dependent individuals (Bogenschutz, Tonigan, & Miller, 2006).

Thus, there is a consistent relationship between self-efficacy and better substance use outcomes immediately following treatment, in the year after treatment, and at longer term follow-up. Further, preliminary evidence from a small number of studies suggests that the determinants of higher self-efficacy include more education, less severe SUD, less perceived stress, better use of coping skills, more engagement in skills training during treatment, and greater engagement with AA (Bogenschutz et al., 2006; Connors et al., 2001; Ilgen et al., 2007; Stephens et al., 1995). These apparent short-term determinants of self-efficacy are quite consistent with cognitive social learning theory (Bandura, 1977) and relapse prevention theory (Marlatt & Gordon, 1985; Witkiewitz & Marlatt, 2004).

(Bandura, 1977) identified several sources of self-efficacy, including past experiences with the behavior (e.g., prior attempts to quit or cut down on substance use, which may be reflected by less severe current problems), vicarious experiencing and verbal persuasion or encouragement (e.g., exposure to supportive abstinent role models that often occur in group therapy or self-help groups), and level of arousal/impulsivity and distress. More recent versions of the model by (Bandura, 1977) suggest that general social support can also enhance self-efficacy. Marlatt and Gordon (1985) proposed that self-efficacy is increased when patients are taught to identify high-risk situations and cope with them effectively. In addition to demographic variables, we follow these ideas and view the potential predictors of posttreatment self-efficacy as reflecting cognitive social learning variables and treatment participation variables.

The extent to which these findings apply to the longer term course of self-efficacy in individuals with an alcohol or drug use disorder is unknown. As treatments shift focus to target self-efficacy over the long term (McKay, 2005), better data are needed on the factors that influence self-efficacy over longer periods. We also do not know whether the findings apply to women because most participants in prior studies were men. Work by Skutle (1999) suggests that, compared to men, women appear to possess higher self-efficacy to resist using substance in the presence of positive emotional states but lower self-efficacy to resist using substances in the presence of negative emotions.

This study uses a sample of treatment-seeking individuals with alcohol use disorders to investigate predictors of self-efficacy 1 year after baseline and then over a period of 15 more years. The analyses focus on how demographic variables (e.g., education, age), social cognitive variables (SUD severity, depression, impulsivity, and coping and social support), and treatment participation (duration of formal treatment and AA) predict 1-year self-efficacy and the trajectory of self-efficacy over the ensuing 15 years, using cognitive social learning theory as a framework. On the basis of the limited number of prior studies, we expected that higher education, less severe substance use and depression, and more coping skills would predict higher 1-year self-efficacy. Consistent with the updated model of self-efficacy by (Bandura, 2004), we also expected that more social support would be associated with higher self-efficacy at 1-year follow-up. Finally, because it reflects less resistance to temptation, we thought that impulsivity would predict lower self-efficacy.

2. Methods

The sample was composed of individuals with alcohol use disorders who had never received professional treatment for these disorders prior to baseline. These individuals were initially recruited after contacting an information and referral center or detoxification program for information about treatment for alcohol-related problems. After providing informed consent, 628 eligible individuals completed a baseline assessment, which represented 64% of patients approached for the study (for more information about the initial data collection process, see Finney & Moos, 1995). Data were collected by trained research staff through a combination of mailings