

Regular article

Recovery at work: The relationship between social identity and commitment among substance abuse counselors

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Abstract

The complex makeup of the substance abuse treatment workforce poses unique challenges to the field. One interesting dynamic is the high rate of counselors who are personally recovering from addictions. Based on social identity theory, it was expected that counselors working in the field of substance abuse treatment who are in recovery themselves will identify more with their profession and report higher professional and organizational commitment. Data from a study of substance abuse counselors from across the United States support the proposed relationship between personal recovery status and professional commitment but not organizational commitment. © 2010 Elsevier Inc. All rights reserved.

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1. Introduction

The substance abuse treatment field faces many human resource management challenges due to the fact that clinicians have high caseloads and low pay and often face both resistance to treatment and relapse among their clients. Perhaps because of these factors, the turnover rate among clinicians is high, estimated anywhere from 16% (McNulty, Oser, Johnson, Knudsen, & Roman, 2007) up to over 50% annually (McLellan, Carise, & Kleber, 2003). The substance abuse treatment workforce is also unique because many clinicians are in recovery from substance abuse themselves. Previous studies have found the percentage of counselors in recovery ranging from 37% (McNulty et al., 2007) to 57% (Knudsen, Ducharme, & Roman, 2006).

The substance abuse treatment field provides a unique opportunity for personal and professional identities to align that does not exist in many other fields. This study proposes that recovery status, or whether or not someone is personally in recovery, represents an important anchor for an individual's self-identity such that those who are in recovery will identify more with their profession, attach greater meaning to their day-to-day work tasks, and as a consequence experience a greater sense of meaning at work than those who are not in recovery. This identification is expected to foster commitment to both the profession and the employing organization. Examining both professional and organizational commitment is important because they are distinct constructs (Meyer, Allen, & Smith, 1993; Wallace, 1993). Specifically, research finds that professional commitment is strongly related to intent to remain in a profession, whereas organizational commitment is strongly related to remaining in one's organization (Blau, 2000; Lee, Carswell, & Allen, 2000; Meyer et al., 1993). Moreover, although professional commitment is also related to intentions to remain in the organization and organizational commitment is related to intentions to stay in the profession, the effect sizes are weaker than those where the form of commitment is

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matched with the target outcome. This makes intuitive sense; an individual may be highly committed to the profession but express intentions to leave the organization due to a variety of working conditions (e.g., poor supervision, low pay). Likewise, an individual may express low professional commitment but remain at the organization because of strong relationships with coworkers, lack of available alternatives, or out of financial need.

1.1. Social identity

The idea that identity and self-concept are a result of social factors is the foundation of both social identity theory (SIT) and identity theory (IT). The premise of these theories is that the self is multifaceted and created by the interaction of the individual with society (Hogg, Terry, & White, 1995; Stets & Burke, 2000). People are not independent of the world around them but are instead shaped by the experiences and relationships they have. Identity formation, then, is based on a reflexive process of comparing one's self to others based on social categories or classifications.

According to SIT, people classify themselves through the social groups with which they align (Hogg et al., 1995; Stets & Burke, 2000; Tajfel, 1974). Similarly, IT claims that it is the roles that people fill that provide identity rather than the groups to which they belong (Hogg et al., 1995; Stets & Burke, 2000). Individuals hold many roles and belong to many groups, often simultaneously. Each of these social factors can provide meaning, identity, and expectations for the individual. Once an identity is established, it can influence attitudes and behavior (Doosje, Ellemers, & Spears, 1999).

1.2. Recovery and identity

Recovery status is an important individual difference because of the unique social identities connected to addiction and recovery. The addicted identity is highly salient and often conflicts with other important identities one holds, such as father, employee, or community member (Denzin, 1987). Therefore, identity reformation is an essential component to recovering from an addiction (Cain, 1991; Kellogg, 1993; Koski-Jannnes, 2002). For the alcoholic,¹ recovery often involves two distinct identity transformations (Cain, 1991). The first transformation is from “nonalcoholic drinker” to admitting that you are an “alcoholic,” and the second is to that of a “recovering alcoholic.” According to Cain, “the change that men and women of A. A. undergo is more than one of behavior—

from drinking to not drinking. It is a transformation of identity, of how one understands oneself” (1991, p. 244). By changing an individual's identity rather than just their behavior, there is greater chance of sustained recovery.

The recovery identity is further shaped and solidified through group membership and interpersonal interactions. For many individuals seeking recovery, a major source of this new self comes from the social forces at work within a twelve-steps community. During the recovery process, the individual aligns himself or herself more and more with AA. As the individual becomes more committed to the group, a social identity is created, and the attitudes, beliefs, behaviors, and norms of the individual start to align with those of the group (Alcoholics Anonymous, 1953). In addition, successful recovery also requires the renegotiation of social relationships based on this new identity (Koski-Jannnes, 2002). For recovering individuals who work in the substance abuse treatment field, situational cues in the work environment will also likely trigger this recovery identity. Interacting with substance abuse clients on a daily basis and walking with others through a process that is potentially very similar to their own experience will constantly remind them of their personal recovery.

1.3. Recovery and commitment

Because of the salience of the recovery identity and the high rate of substance abuse clinicians who are in recovery, differences based on clinician recovery status are of particular interest. Surprisingly, few empirical studies have examined differences between clinicians who are in recovery and those who are not. Culbreth's (2000) review of the literature shows that most of these studies focused on criteria such as treatment effectiveness, treatment methods, attitudes about addiction, clinical decision making, and personality. There are also a few studies examining differences in pay (Olmstead, Johnson, Roman, & Sindelar, 2007), supervision preferences (Culbreth, 1999) and attitudes about ethical issues (e.g., Hecksher, 2007; Hollander, Bauer, Herlihy, & McCollum, 2006) as a function of recovery status. Interestingly, when recovery status has been studied in relation to work attitudes, it has been used as a control variable rather than a key predictor (Ducharme, Knudsen, & Roman, 2008). The aim of this study is to fill this gap in the literature by testing for the direct effects of recovery status on work attitudes. Two of the most commonly studied work attitudes will be considered: organizational commitment and professional commitment. Although similar in many ways, these two forms of commitment are distinct; they have been shown to have different relationships with other constructs (Cooper-Hakim & Viswesvaran, 2005; Meyer et al., 1993).

1.3.1. Professional commitment

The potential for overlap between personal, organizational, and professional values and goals in the substance abuse treatment field is greater than in most, increasing

¹ Much of the empirical research on recovery is based on alcoholism and Alcoholics Anonymous (AA). We recognize that not all people in recovery are recovering from an alcohol addiction or are members of AA. However, alcohol is the most common of all chemical dependencies, and the twelve-steps treatment program is reported as being foundational in 90%–95% of substance abuse treatment programs (Bristow-Braitman, 1995; Laudet, 2003).

the likelihood that clinicians in recovery may more strongly identify with their work. It is thought that they will feel a strong sense of commitment to their profession. Professional commitment refers to “the strength of motivation to work in a chosen career role” (Hackett, Lapierre, & Hausdorf, 2001, p. 393).

The strong link between the individual's identity and the profession in which they work is most clearly seen in the twelfth step of AA. It states, “having had a spiritual awakening as the result of these steps, we [try] to carry this message to alcoholics, and to practice these principles in all our affairs” (Alcoholics Anonymous, 1953, p. 109). Helping others find freedom from addiction is a key goal of AA members. Because this is also the mission of the substance abuse treatment field, it seems reasonable to expect that counselors who are in recovery themselves will express a strong commitment to their profession. Based on this idea, it is proposed that recovery status is related to professional commitment.

Hypothesis 1. Counselors who are personally in recovery will express higher affective professional commitment than counselors who are not personally in recovery.

1.3.2. Organizational commitment

Just as substance abuse counselors who are in recovery are expected to express commitment to their profession, it is anticipated that they will also be more strongly committed to their organization than counselors who are not personally in recovery. Affective organizational commitment has been defined as a bond or link between the individual and the organization (Mathieu & Zajac, 1990). This type of commitment is a result of an emotional connection and a desire to stay connected to the organization (Mowday, Porter, & Steers, 1982). The central element of organizational commitment is a personal identification with the organization (Meyer, Becker, & Vandenberghe, 2004; Wiener, 1982). Such organizational identification is the “extent to which one defines him or herself in terms of the work he or she does and the prototypical characteristics ascribed to individuals who do that work” (Mael & Ashforth, 1992, p. 106). Counselors who are in recovery are more likely to experience an overlap due to these similarities, especially the similarity of goals and values. For people who adhere to the twelve steps, the final step charges people who are recovering to go out and help others find recovery. This step is commonly referred to as “carrying the message.” Helping people recover from addiction is also the primary goal of treatment centers. Therefore, there is congruence between the values of the organization and the values of the counselor who is in recovery. This leads us to predict:

Hypothesis 2. Counselors who are personally in recovery will express higher affective organizational commitment than counselors who are not personally in recovery.

2. Materials and methods

2.1. Sample and procedure

The data used in this study are part of a larger National Institute on Drug Abuse (NIDA)-funded research project that used NIDA's Clinical Trials Network (CTN; <http://www.drugabuse.gov/CTN/>) as a platform for the research. Data were collected from 86 freestanding public and private treatment centers associated with 27 treatment organizations located throughout the United States. We recruited treatment organizations through formal presentations at the CTN's External Affairs Subcommittee Meeting and the Community Treatment Program (CTP) Caucus (both in May 2004). We also contacted several CTP directors who were known leaders within the CTN and asked for their help with study recruitment. This yielded our sampling frame of 26 CTN-affiliated treatment centers and 1 non-CTN treatment organization. The treatment organizations that participated in the study were mostly nonprofit entities (88%) that were accredited (72%) and not housed on a hospital campus (84%). Wide geographic representation was obtained: 26% Eastern United States (e.g., Connecticut, Pennsylvania), 11% Midwest United States (e.g., Indiana, Ohio), 26% Southern United States (e.g., Florida, North Carolina), and 37% Western United States (e.g., California, Colorado). Participating treatment organizations offered services to adolescents only, adults only, and both adolescents and adults. Inpatient, residential, and outpatient programs were also represented in the sample. Most treatment organizations (61%) reported their treatment orientation as being eclectic or mixed model. In terms of sample representativeness, there is evidence that counselors employed at programs affiliated with the CTN are similar to other counselors across the country (Knudsen, Ducharme, & Roman, 2007).

To be eligible to participate in the study, the CTP had to provide drug abuse counseling services in a community-based setting. Prison-based programs, Veteran's Health Administration programs, and driving-under-the-influence schools were excluded. To be eligible to participate in the study, counselors had to have direct contact with clients in a therapeutic relationship.

Although the specific responsibilities of a counselor vary from organization to organization, a typical substance abuse counselor performs various clinical and administrative tasks. A major part of their job is to counsel clients with addictions to various substances, both individually and in group settings. They are also responsible for the development, modification, and evaluation of treatment plans for these clients (O*NET, 2003). Within this sample, the number of full-time counselors who carry a caseload employed by the CTPs averaged 56, with individual treatment centers reporting between 8 and 225 counselors. Alcohol was the most commonly treated addiction (48% of clients), followed by marijuana (29%), heroin (24%), and cocaine (22%).

The data were collected on-site during normal business hours, and the treatment center was compensated a flat rate of \$1,000 and an additional \$50 for each completed counselor survey and \$75 for each completed clinical supervisor survey to offset employee time off-the-clock. A researcher traveled to each location to administer the paper-and-pencil survey. The survey took approximately 1 hour to complete. To ensure confidentiality, the surveys were coded with numbers rather than names, and completed surveys were turned in directly to the researcher. CTP administration was not allowed access to completed surveys. The research protocol was approved by the institutional review board at the first author's home university.

Seven hundred thirty-nine counselors from 27 different treatment organizations took the survey (81% response rate). Usable data were collected from 695 counselors. Participants were primarily female (64%) and Caucasian (59%). The average age was 43 years with an average of about 10 years of experience as a substance abuse counselor. Counselors carried an average caseload of 25 clients and worked about 44 hours per week. The average annual salary was approximately \$34,000. Half (50%) of the counselors held certifications or licensure in addiction treatment. Thirty-eight percent of the counselors were personally in recovery.

2.2. Measures

2.2.1. Recovery status

Consistent with previous research (e.g., Ball et al., 2002; Glover-Graf & Janikowski, 2007), we operationalized recovery status with a single-item yes/no question, "Are you personally in recovery?" Responses were coded 0 = no and 1 = yes.

2.2.2. Professional commitment

A modified version of Meyer et al.'s (1993) six-item measure of affective professional commitment was used to measure counselors' emotional connection with their profession. Meyer's study focused on nursing, so where necessary, the word *nursing* was replaced with *the substance abuse profession*. A sample item is, "I am enthusiastic about the substance abuse profession." A 5-point Likert-type scale

was used (1 = *strongly disagree*; 5 = *strongly agree*). The coefficient alpha for this scale is .80.

2.2.3. Organizational commitment

Affective organizational commitment was measured with Meyer et al.'s (1993) six-item measure also using the same 5-point scale as described above. A sample item is, "This organization has a great deal of personal meaning to me." The coefficient alpha is .85.

2.2.4. Control variables

There are numerous other variables that could influence the work attitudes examined in this study. The first set of control variables to be considered were demographics that may serve as the basis of alternate salient social identities. This included variables such as gender, race, marital status, and parental status. Secondly, previous research has found some significant differences between counselors who are in recovery and those who are not. Counselors in recovery from their own addictions are less likely to have professional training or graduate degrees (Culbreth, 2000; Culbreth & Borders, 1998; Hecksher, 2007; Valle, 1979), get paid less (Olmstead et al., 2007), and are older (Culbreth & Borders, 1999). Therefore, education level, certification/licensure, current salary, and age were considered as potential control variables. Finally, tenure in the profession and current caseload was also considered due to their possible impact on work attitudes.

3. Results

3.1. Analyses

Data analysis began by determining which control variables would be used. The correlations between the potential control variables and the two criteria, organizational commitment and professional commitment, were considered. To preserve power and avoid overinflated results from the inclusion of a large number of superfluous, unrelated variables, only the control variables that were significantly related to the specific criterion variable were

Table 1
Means, standard deviations, and correlations of primary study variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Recovery status ^a	0.38	0.49	–				
2. Professional commitment	4.15	0.63	.25 **	–			
3. Organizational commitment	3.10	0.85	.15 **	.42	–		
4. Age	43.21	12.15	.38 **	.13 **	.16 *	–	
5. Certification ^b	0.50	0.50	.23 **	.17 **	.13 *	.37 **	–
6. Education	4.90	1.41	–.28 **	–.13 **	–.12 *	–.02	–.06

Note. N ranges from 288 to 290.

^a Recovery status coded 0 = not in recovery, 1 = in recovery.

^b Certification coded 0 = not certified or licensed, 1 = certified or licensed.

* $p < .01$.

** $p < .001$.

used as controls (Neter & Wasserman, 1990). Based on this criterion, the following control variables were used for both affective professional commitment and affective organizational commitment: age, certification/licensure, and education level. The means, standard deviations, and correlations among primary study variables appear in Table 1.

Multiple regression analysis was used to test the hypotheses. To be able to accurately interpret the results of a regression analysis, the core assumptions of linearity, collinearity, normality, tolerance, and leverage must be met. We conducted diagnostic analyses to examine these assumptions, and the results were found to be acceptable according to the standards set forth in Cohen, Cohen, West, and Aiken (2003; e.g., all tolerance values $>.77$; all variance inflation factors (VIF) were <1.29 ; histograms and normal P-P plots of regression standardized residuals reflect normality).

We also conducted a confirmatory factor analysis to examine the construct validity of professional commitment and organizational commitment. First, a two-factor model was run whereby professional commitment and organizational commitment were distinct factors. This model fit the data well, $\chi^2(df = 53) = 282.73, p < .001$; CFI (comparative fit index) = 0.94, RMSEA (root mean square error of approximation) = 0.08, SRMR (standardized root mean square residual) = 0.05. We then compared the a priori two-factor model to an alternative one-factor where all items loaded on the same factor. These data did not fit the data well, $\chi^2(df = 54) = 1,428.08, p < .001$, CFI = 0.63, RMSEA = 0.19, SRMR = 0.13. More importantly, the one-factor model fit the data less well than the two-factor model, $\Delta\chi^2(df = 1) = 1,145.35, p < .001$. This demonstrates strong construct validity and the uniqueness of these two constructs.

The hypotheses proposed direct relationships between counselor recovery status and both types of commitment. These hypotheses were tested using multiple regression. Both recovery status and the relevant control variables were entered as predictors in the equations (see Table 2). For professional commitment, recovery status was significant ($\beta = .22, p < .001$). However, recovery status was not a significant predictor of organizational commitment ($\beta = .08, p = .06$). Therefore, Hypothesis 1, but not Hypothesis 2, was supported.

Table 2
Summary of regression analyses of effects of recovery status and controls on commitment

Predictor	Outcome: Professional commitment Total $R^2 = .08$. $F(4, 662) = 14.75 ***$			Outcome: Organizational commitment Total $R^2 = .44$. $F(4, 662) = 8.57 ***$		
	B	SE B	β	B	SE B	β
Recovery status	0.28	0.06	.22 ***	0.14	0.08	.08 *
Age	0.00	0.00	.01	0.01	0.00	.10 **
Certified/Licensed	0.13	0.05	.11 ***	0.12	0.07	.07 *
Education	−0.03	0.02	−.06	−0.05	0.02	−.09 **

* $p < .10$.

** $p < .05$.

*** $p < .01$.

4. Discussion

4.1. Theoretical implications

The purpose of this study was to examine the influence of substance abuse counselors' personal recovery status on their work-related commitment. It contributes to the literature by integrating two traditionally independent lines of research, social identity and work attitudes, in a setting where neither is often studied, substance abuse treatment. This study sought to determine if counselors who have been through the recovery process themselves might identify more with their work and therefore report more commitment than counselors who are not in recovery.

The key finding from this study is that recovery status does in fact play an important role in the level of work-related commitment of substance abuse counselors. Counselors who are personally in recovery report significantly higher levels of affective commitment to the profession. This strong emotional connection implies that they identify with their profession, are motivated to work in this field, and believe that their role in the profession is important to their self-image (Hackett et al., 2001; Meyer et al., 1993). Although previous research has considered that recovery status may play an important role in clinical outcomes such as treatment approaches, client recovery rates, and attitudes toward supervision (Culbreth, 1999, 2000; Culbreth & Borders, 1998, 1999), this study shows that recovery status is important to consider in our understanding of commitment of those employed in the substance abuse treatment profession.

It was hypothesized that recovery status would be directly related to both forms of commitment due to the strong social identity associated with being in recovery. Surprisingly, recovery status was not significantly related to affective organizational commitment. One explanation for this is that although recovery status was significantly related to one's attitude about the profession, it may be too distal to have a strong direct effect on attitudes and evaluations about a person's specific organization. It may be that this target of commitment is influenced more directly by job and organizational factors that are more proximal (Mathieu & Zajac, 1990).

There are some other key differences between professional and organizational commitment that may explain the differential findings. In professional occupations such as the one under investigation, it is often assumed that professional commitment typically precedes the other attitudes because of the training required to enter the field (Lee et al., 2000). Most substance abuse counselors have already made a commitment to the profession by taking steps to get the necessary education and certification before joining an organization. In addition, unlike previous generations, workers today have to deal with more changes in their work setting due to downsizing, mergers, and acquisitions. This turbulent work environment often means that people are unlikely to stay with the same organization their whole career, making occupations more stable than organizations

(Lee et al., 2000; Van Vuuren, Veldkamp, de Jong, & Seydel, 2008). This is likely to result in people focusing on and committing to their profession more than to their organization (Lee et al., 2000).

4.2. Practical implications

There are practical applications of the finding that affective professional commitment is related to recovery status. Understanding why employees do their work is of strategic importance to organizations. A study by Van Vuuren et al. (2008) found that organizational values and value congruence are strong motivators of behavior and commitment. For counselors who are personally in recovery and hold strong personal values regarding the twelfth step and helping others find recovery, it is easy for them to see the overlap of their personal values with those of the profession. This identification may then lead to commitment which has positive downstream benefits for the organization. To maximize the positive results of having high levels of professional commitment, Lee et al. (2000) argued that organizations concerned with retention of employees should implement strategies for building and enhancing professional identification for all employees. They suggest practices such as offering professionally valued rewards and activities. In the substance abuse treatment field, this could include educational and training benefits and support to attend professional conferences. These types of programs will help to enhance the counselors' professional identification and commitment, which can in turn lead to increased organizational commitment.

If it is true that identification with the values and goals of the profession has positive results, then it is likely that organizations will benefit by increasing any counselor's awareness of the congruence between their personal values and those of the organization. This will help strengthen the employee's attachment to their specific organization and not just the profession in general. Organizations that want to increase organizational commitment should present an image of the organization that allows employees to identify with common goals, values, and mission (Van Dick et al., 2004; Van Vuuren et al., 2008). This could be done by creating a mission or vision statement for the organization based on values that are important to the counselors, such as helping hurting people find freedom from addiction. By integrating this vision into routine communications and human resource practices like training and performance appraisal, employees will better be able to identify with their work and strengthen their professional and organizational identification (Lee et al., 2000).

4.3. Limitations and future research

As in all research, this study has limitations. One limitation of this study has to do with the construct of identity. The theoretical foundation for this study was that counselors who are personally in recovery will have a highly salient identity based on their recovery experience. It is possible that some

people may be in recovery but that this part of their lives does not impact their identity in a way that would influence their attitudes toward their job. It is also possible that counselors who are not in recovery themselves but have a close friend or family member who has struggled with an addiction may have deep-level identification with their work. As a result, it is possible that the single-item measure of recovery status does not adequately tap into how strongly a person in recovery identifies with this part of their life. However, the recovery literature makes a very strong case that there is a significant transformation of identity that occurs during the recovery process (Cain, 1991; Denzin, 1987; Kellogg, 1993). It is safe to assume, then, that most, if not all, counselors who are in recovery identify in some way with their recovery. An interesting future study would be to measure the degree to which a person identifies with his or her own recovery and with the profession as well as any experience of recovery among family or close friends to gain a better understanding about how identification plays a part in the relationship between recovery status and work attitudes.

This study focused on affective commitment to both the profession and the organization, but it is possible that other forms of commitment might be related to recovery status. Continuance commitment is a form of commitment based on the costs associated with leaving (Mathieu & Zajac, 1990). It can result from a lack of perceived alternatives, sunk costs, or other perceived sacrifices that would result from leaving the organization or profession (Meyer, Stanley, Herscovitch, & Topolnysky, 2002). It may also be that counselors who are in recovery may feel that they have fewer career alternatives and so they stay in the substance abuse field. Normative commitment is based on a sense of obligation grounded in social norms (Meyer et al., 2002). Counselors in recovery may feel obligated to work in the substance abuse treatment field out of an obligation to the substance abuse treatment community as a way to show gratitude for their own recovery. At the organization level, counselors who are in recovery may feel indebted to their organization for taking a chance on them and giving them a job. These feelings of obligation may tie the person to the profession or the organization even if he or she is not emotionally connected, as in affective commitment. Therefore, this line of research could be expanded to the other types of commitment, looking to see if there are differential relationships with these different forms of commitment.

4.4. Conclusion

Based on the findings of this study, it is clear that clinician recovery status should be considered in future work in the substance abuse treatment field. Culbreth (1999, 2000) and Culbreth and Borders (1998, 1999) have laid the foundation by studying recovery status in more clinical matters, but this study shows that the impact of recovery status extends beyond treatment itself. Counselors who are personally in recovery are more committed to their profession than

counselors who are not. The recovery identity can be a powerful one. Recovering from an addiction is a personal accomplishment that extends down into the core of an individual and can affect all aspects of their life, and its influence should not be overlooked.

References

- Alcoholics Anonymous. (1953). *Twelve steps and twelve traditions*. New York: Alcoholics Anonymous World Services, Inc.
- Ball, S., Bachrach, K., DeCarlo, J., Farention, C., Keen, M., McSherry, T., et al. (2002). Characteristics, beliefs, and practices of community clinicians trained to provide manual-guided therapy for substance abuse counselors. *Journal of Substance Abuse Treatment*, 23, 309–318.
- Blau, G. (2000). Job, organizational, and professional context antecedents as predictors of intent for interrole work transitions. *Journal of Vocational Behavior*, 56, 330–345.
- Bristow-Braitman, A. (1995). Addiction recovery: 12-Step programs and cognitive-behavioral psychology. *Journal of Counseling & Development*, 73, 414–418.
- Cain, C. (1991). Personal stories: Identity acquisition and self-understanding in Alcoholics Anonymous. *Ethos*, 19, 210–253.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*, 2nd ed. Mahwah, NJ: Lawrence Erlbaum.
- Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: Testing an integrative framework. *Psychological Bulletin*, 131, 241–259.
- Culbreth, J. R. (1999). Clinical supervision of substance abuse counselors: Current and preferred practices. *Journal of Addictions & Offender Counseling*, 20, 15–25.
- Culbreth, J. R. (2000). Substance abuse counselors with and without a personal history of chemical dependency: A review of the literature. *Alcoholism Treatment Quarterly*, 18, 67–82.
- Culbreth, J. R., & Borders, L. D. (1998). Perceptions of the supervisory relationship: A preliminary qualitative study of recovering and nonrecovering substance abuse counselors. *Journal of Substance Abuse Treatment*, 15, 345–352.
- Culbreth, J. R., & Borders, L. D. (1999). Perceptions of the supervisory relationship: Recovering and nonrecovering substance abuse counselors. *Journal of Counseling & Development*, 77, 330–338.
- Denzin, N. K. (1987). *The recovering alcoholic*. Newbury Park, CA: Sage.
- Doosje, B., Ellemers, N., & Spears, R. (1999). Commitment and intergroup behavior. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 84–106). Oxford: Blackwell.
- Ducharme, L. J., Knudsen, H. K., & Roman, P. M. (2008). Emotional exhaustion and turnover intention in human service occupations: The protective role of coworker support. *Sociological Spectrum*, 28, 81–104.
- Glover-Graf, N. M., & Janikowski, T. P. (2007). Substance abuse counselors' experiences with victims of incest. *Journal of Substance Abuse Treatment*, 20, 9–14.
- Hackett, R. D., Lapierre, L. M., & Hausdorf, P. A. (2001). Understanding the links between work commitment constructs. *Journal of Vocational Behavior*, 58, 392–413.
- Hecksher, D. (2007). Former substance users working as counselors: A dual relationship. *Substance Use & Misuse*, 42, 1253–1268.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly*, 58, 255–269.
- Hollander, J. K., Bauer, S., Herlihy, B., & McCollum, V. (2006). Beliefs of board certified substance abuse counselors regarding multiple relationships. *Journal of Mental Health Counseling*, 28, 84–94.
- Kellogg, S. (1993). Identity and recovery. *Psychotherapy: Theory, Research, Practice, Training*, 30, 235–244.
- Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2006). Counselor emotional exhaustion and turnover intention in therapeutic communities. *Journal of Substance Abuse Treatment*, 31, 173–180.
- Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). Research participation and turnover intention: An exploratory analysis of substance abuse counselors. *Journal of Substance Abuse Treatment*, 33, 211–217.
- Koski-Jannes, A. (2002). Social and personal identity projects in the recovery from addictive behaviours. *Addiction Research & Theory*, 10, 183–202.
- Laudet, A. B. (2003). Attitudes and beliefs about 12-step groups among addiction treatment clients and clinicians: Toward identifying obstacles to participation. *Substance Use & Misuse*, 38, 2017–2047.
- Lee, K., Carswell, J. J., & Allen, N. J. (2000). A meta-analytic review of occupational commitment: Relations with person- and work-related variables. *Journal of Applied Psychology*, 85, 799–811.
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13, 103–123.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108, 171–194.
- McLellan, A. T., Carise, D., & Kleber, H. D. (2003). Can the national addiction treatment infrastructure support the public's demand for quality care? *Journal of Substance Abuse Treatment*, 25, 117–121.
- McNulty, T. L., Oser, C. B., Johnson, J. A., Knudsen, H. K., & Roman, P. M. (2007). Counselor turnover in substance abuse treatment centers: An organizational-level analysis. *Sociological Inquiry*, 77, 166–193.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538–551.
- Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89, 991–1007.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnysky, L. (2002). Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20–52.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organizational linkages*. New York: Academic Press.
- Neter, J., & Wasserman, W. (1990). *Applied linear statistical models: Regression, analysis of variance, and experimental designs*. Homewood, IL: Irwin.
- O*NET. (2003). Summary report for: 21-1011.00—Substance abuse and behavioral disorder counselors. Retrieved January 8, 2009, from O*NET Consortium Web site: <http://online.onetcenter.org/link/summary/21-1011.00>.
- Olmstead, T. A., Johnson, J. A., Roman, P. M., & Sindelar, J. L. (2007). Why are recovering substance abuse counselors paid less? *Substance Abuse*, 28, 31–44.
- Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63, 224–237.
- Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information*, 13, 65–93.
- Valle, S. K. (1979). *Alcoholism counseling: Issues for an emerging profession*. Springfield, IL: Thomas.
- Van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., et al. (2004). Should I stay or should I go? Explaining turnover intentions with organizational identification and job satisfaction. *British Journal of Management*, 15, 351–360.
- Van Vuuren, M., Veldkamp, B. P., de Jong, M. D. T., & Seydel, E. R. (2008). Why work? Aligning foci and dimensions of commitment along the axes of the competing values framework. *Personnel Review*, 37, 47–65.
- Wallace, J. E. (1993). Professional and organizational commitment: Compatible or incompatible? *Journal of Vocational Behavior*, 42, 333–349.
- Wiener, Y. (1982). Commitment in organizations: A normative view. *Academy of Management Review*, 7, 418–428.