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Differences in Early Maladaptive Schemas in a Sample of Alcohol and Opioid Dependent Women: Do Schemas Vary Across Disorders?

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Abstract

Research suggests that there may be differences between individuals diagnosed with alcohol dependence and individuals diagnosed with opioid dependence on co-morbid mental health problems (e.g., personality disorders, mood disorders, etc.). The current study examined whether there were differences in early maladaptive schemas, which are theorized to underlie mental health problems, among women diagnosed with alcohol dependence or opioid dependence who were seeking treatment for their substance use ($N = 420$). Results showed that opioid dependent women scored higher on 2 of the 18 early maladaptive schemas, particularly the schemas of dependence and punitiveness. Overall, these findings suggest that early maladaptive schemas may be largely consistent across women diagnosed with alcohol or opioid dependence. Implications of these findings for future research and treatment are discussed.

Keywords

Early maladaptive schemas; substance use; alcohol; opioid; women

Substance use among women, and its associated disorders, is a serious problem. Alcohol continues to be the most widely abused substance among women (Gabbard, 2001) and use and abuse of opioids is increasing at alarming rates (Veilleux, Colvin, Anderson, York, & Heinz, 2010). Women who have a substance use disorder are also more likely to have associated mental health problems, such as mood, anxiety, and personality disorders (Grant et al., 2004; 2006). Recent research also suggests that associated mental health problems may be different for women with an alcohol disorder diagnosis and women with an opioid dependence diagnosis (Grant et al., 2004; Skodol, Oldham, & Gallaher, 1999). Knowing whether women with different substance use diagnoses have similar or different associated mental health problems may help inform treatment of substance use, as the treatment of co-morbid mental health problems is an important target of substance use interventions (Veilleux et al., 2010). Expanding upon previous research, the current study examined differences in early maladaptive schemas, which are cognitive, behavioral, and affective patterns that cause considerable distress and are theorized to underlie mental health problems (Young, Klosko, & Weishaar, 2003), among women diagnosed with alcohol or opioid dependence and who were seeking treatment for their substance use disorder.

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Alcohol and Opioid Use and Mental Health Problems

A number of studies have demonstrated strong associations between substance use disorders and other mental health disorders, including mood, anxiety, and personality disorders (Grant et al., 2004; Strain, 2002; Veilleux et al., 2010). Furthermore, research has consistently shown elevated rates of co-morbid mental health problems among women seeking treatment for substance use disorders when compared to that found in the general population (Verheul, Ball, & van den Brink, 1998). Among non-treatment seeking samples, elevated rates of co-morbid mental health problems have been found among women with substance use disorders (Grant et al., 2006). Thus, research has consistently shown the importance of assessing co-morbid mental health problems among individuals with substance use disorders.

Although there is a relatively large literature on the association between substance use and additional mental health problems, less research has examined whether these associations vary among individuals who abuse or are dependent on different types of substances. Skodol and colleagues (1999), using a sample of patients from an inpatient unit specializing in personality disorders and an outpatient psychological clinic, showed that individuals who had a drug use disorder (opiates, sedatives, hallucinogens, or polysubstance) were more likely to meet criteria for antisocial, borderline, and narcissistic personality disorder than individuals who had an alcohol use disorder. Using data from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), a nationally representative sample of adults, Grant and colleagues (2004) showed that individuals with a drug use disorder were more likely to meet diagnostic criteria for a personality disorder than individuals with an alcohol use disorder. These studies suggest that individuals who abuse or are dependent on drugs, relative to alcohol, may be more likely to meet criteria for personality disorders.

Early Maladaptive Schemas and Substance Use

Recent research has examined early maladaptive schemas among individuals with a substance use problem (e.g., Ball & Cecero, 2001; Brotchie, Meyer, Copello, Kidney, & Waller, 2004; Roper, Dickson, Tinwell, Booth, & McGuire, 2010; Shorey, Anderson, & Stuart, 2011). Early maladaptive schemas have been defined as “self-defeating emotional and cognitive patterns that begin early in our development and repeat throughout life” (Young et al., 2003, p. 7). As outlined by Young and colleagues (2003), there are 18 early maladaptive schemas that individuals can possess, which fall into the domains of disconnection and rejection, impaired autonomy and performance, impaired limits, other directedness, and overvigilance and inhibition (see Young et al., 2003 for a detailed description of each schema). These schemas are believed to develop primarily during early childhood experiences that are often traumatic or toxic (e.g., abuse, neglect, lack of affection, etc.) and involve one's family of origin or primary caretakers (Young et al., 2003). As a result of these early life experiences, early maladaptive schemas are highly enduring and pervasive patterns of viewing and interacting with the world, result in a number of maladaptive coping mechanisms, and are theoretically believed to underlie a number of mental health problems, including personality disorders (Ball, 2007; Young et al., 2003). Indeed, a number of studies across a range of populations have shown early maladaptive schemas to be associated with mental health problems (e.g., Ball & Cecero, 2001; Cockram et al., 2010; Jovev & Jackson, 2004; Riso et al., 2006; Waller, Meyer, & Ohanian, 2001; Young et al., 2003).

Recently, researchers have begun investigating the prevalence of early maladaptive schemas in substance using populations. When compared to individuals without substance use problems, research has demonstrated elevated levels of early maladaptive schemas among

individuals seeking treatment for substance use (Brotchie et al., 2004; Roper et al., 2010; Shorey et al., in 2011). Research has also demonstrated that women with an alcohol dependence diagnosis scored higher on the majority of early maladaptive schemas than men with alcohol dependence, suggesting that early maladaptive schemas may be more prevalent among women in substance use treatment (Shorey, Anderson, & Stuart, 2012). In addition, the most common schemas among this sample of alcohol dependent women, which includes a subsample of the alcohol dependent women used in the current study, were self-sacrifice, unrelenting standards, insufficient self-control, and punitiveness. Moreover, attempts at avoiding the negative cognitive, behavioral, and emotional responses of early maladaptive schemas are associated with increased severity of substance use (Brotchie, Hanes, Wendon, & Waller, 2007).

However, to date we are aware of only one study that has examined potential differences among individuals diagnosed with alcohol and opioid disorders on early maladaptive schemas. Brotchie and colleagues (2004), using a sample of males and females recruited from substance use treatment clinics, compared individuals who had an alcohol abuse or dependence diagnosis ($n = 44$) to individuals with an opioid abuse or dependence diagnosis ($n = 36$) on early maladaptive schemas. Results showed that individuals with an alcohol diagnosis scored significantly higher than individuals with an opioid diagnosis on the schemas of subjugation and vulnerability. No other differences emerged. This study provides preliminary evidence that early maladaptive schemas may be fairly consistent across substance use disorders, which could have important implications for the effective treatment of various substance use disorders.

However, the study of Brotchie and colleagues (2004) had several limitations that should be addressed in future research. First, the sample size used in this study was relatively small, and combined males and females. Women often enter substance use treatment with more co-morbid mental health problems than men (Foster, Peters, & Marshall, 2000), and examining women independent of men on early maladaptive schemas will be important for future research. Second, this study used an older conceptualization and measure of Young's early maladaptive schemas, which contained only 15 schemas. Current theoretical conceptualization of early maladaptive schemas proposes 18 schemas (Young et al., 2003), and Young and colleagues have created a self-report measure designed to examine each of the 18 schemas (i.e., Young & Brown, 2003). Comparing individuals with an alcohol or opioid diagnosis on early maladaptive schemas could inform substance use treatment programs on the targets of intervention that may be most salient for each disorder. This may improve long-term substance use treatment outcomes, as early maladaptive schemas are theoretically proposed to underlie substance use (Ball, 2007; Young et al., 2003) and treatment of early maladaptive schemas has resulted in improved substance use outcomes (Ball, 2007).

Current Study

The current study sought to examine the prevalence of early maladaptive schemas in a sample of alcohol and opioid dependent women seeking treatment at a residential substance use facility. Due to the high prevalence of alcohol misuse and the increasing use and abuse of opioids, these disorders were examined in the current study. Using pre-existing patient treatment records, we also sought to examine whether there were differences in early maladaptive schemas across diagnostic groups, as previous research has demonstrated that alcohol users may endorse certain schemas to a greater degree than opioid users (Brotchie et al., 2004). Due to a dearth of research in this area, we did not have any definitive hypotheses concerning differences in early maladaptive schemas among substance disorder diagnosis groups.

Method

Procedures and Participants

Patient records from an inpatient substance treatment program that is located in the Southeastern United States were reviewed for the current study. This treatment program is an approximately 30-day residential program that is primarily guided by the traditional 12-step model, but also places a heavy emphasis on the identification and modification of patients' early maladaptive schemas. The treatment center only admits individuals into the program if they are approximately 25 years of age or older with a primary substance use disorder diagnosis. Upon admission to the treatment facility, patients complete a number of self-report measures and semi-structured interviews. Substance use disorder diagnoses, which are based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria (American Psychiatric Association, 1994), are made through consultation with a psychiatrist, a Ph.D. Licensed Psychologist, a general physician, and substance use counselors.

Patient records were searched from April 2006 to September 2010 to identify female patients with a primary diagnosis of (1) opioid dependence with no co-morbid substance use disorders and (2) alcohol dependence with no co-morbid substance use disorders. This resulted in a total of 420 patients, 52.4% (n = 220) of which were diagnosed with alcohol dependence and 47.6% (n = 200) with opioid dependence. The mean age of patients was 41.2 (SD = 10.1) and the majority were non-Hispanic Caucasian (89.8%), with the remaining patients being African American (3.8%), and "other" (e.g., Hispanic, Multi-Racial, Native American, etc., 0.9%). Some patients did not indicate their race (5.5%). Upon admission to the treatment program, 52.6% of patients were married, 21% were divorced, 18.1% were never married, and 2.6% indicated "other" (e.g., widowed, life partner, etc.). Some patients (5.7%) did not indicate their relationship status. Almost half of the patients were employed full-time (42.4%) prior to admission into the treatment program. The sample of women diagnosed with alcohol dependence is a sub-sample of women reported on previously (Shorey et al., 2012).

Women with an alcohol dependence diagnosis (M = 44.6, SD = 9.2) were significantly older than women with an opioid dependence diagnosis (M = 37.4, SD = 9.4), $t(418) = 7.793$, $p < .001$. Moreover, women with alcohol dependence (49.5%) were more likely to be employed full-time than women with an opioid dependence diagnosis (34.5%), $\chi^2(1) = 12.16$, $p < .01$. Women with an opioid dependence diagnosis (64.3%) were more likely to be married than women with an alcohol dependence diagnosis (47.8%), $\chi^2(1) = 11.03$, $p < .01$.

Measures

Demographics—Upon admission to the treatment facility, patients indicated their age, ethnicity, gender, relationship status, and employment status.

Early Maladaptive Schemas—Patients completed the Young Schema Questionnaire – Long Form, Third Edition (YSQ-L3; Young & Brown, 2003) as part of their initial intake assessment, and after medical detoxification if applicable. The YSQ-L3 consists of 232 self-report items that assesses the 18 early maladaptive schemas proposed by Young and colleagues (2003). Respondents are asked to indicate how much each item describes themselves, with each item rated on a six point scale (1 = completely untrue of me; 6 = describes me perfectly). A score of 4 (i.e., m*oderately true of me*) or greater on each item contributes to the overall total score for each early maladaptive schema (Young & Brown, 2003). The 18 early maladaptive schemas subscales, and number of items and possible score ranges for each, are: emotional deprivation (9 items; 0-54), abandonment (17 items; 0-102),

mistrust/abuse (17 items; 0-102), social isolation (10 items; 0-60), defectiveness (15 items; 0-90), failure (9 items; 0-54), dependence (15 items; 0-90), vulnerability (12 items; 0-72), enmeshment (11 items; 0-66), subjugation (10 items; 0-60), self-sacrifice (17 items; 0-102), emotional inhibition (9 items; 0-54), unrelenting standards (16 items; 0-96), entitlement (11 items; 0-66), insufficient self-control (15 items; 0-90), approval-seeking (14 items; 0-84), negativity/pessimism (11 items; 0-66), and punitiveness (15 items; 0-90) (Young & Brown, 2003).

Young and Brown (2003) developed cutoff scores for each early maladaptive schema, such that each schema can be categorized into low, medium, high, or very high schema endorsement. If a score falls into the *high* or *very high* range, it indicates that an individual likely has that particular early maladaptive schema. If a score falls into the *medium* range then it indicates that a particular schema may be present in an individual and should be further assessed. If a score falls into the *low* range it indicates that a particular schema is likely not present in an individual (Young & Brown, 2003). The YSQ-L3 has demonstrated good validity, reliability, and factor structure (Cockram et al., 2010; Saariaho, Saariaho, Karila, & Joukamaa, 2009).

Results

All analyses were conducted using SPSS version 18.0. We first examined distributions of each early maladaptive schema to determine whether they were positively skewed or kurtotic. Examination of distributions revealed that the highest skewness score was 1.5 (schemas of failure and enmeshment) and the highest kurtosis score was 1.6 (schemas of entitlement and vulnerability). Thus, because these values do not indicate potential problems with violating assumptions of normality for most data analytic techniques (Hildebrand, 1986) we conducted analyses using tests that assumed normal distributions.

We first examined correlations among early maladaptive schemas, which are presented in Table 1. For both groups, the vast majority of early maladaptive schemas were positively and significantly associated with each other, with most correlations falling between .30-.50. We next examined differences among diagnostic groups on continuous early maladaptive schema scores using *t* tests. These results are presented in Table 2. Only two significant differences emerged across the 18 early maladaptive schemas, which were for the schemas of punitiveness and dependence. Findings showed that women with an opioid dependence diagnosis scored significantly higher than women with an alcohol dependence diagnosis on the schemas of punitiveness, $t(418) = 2.013$, $p < .05$, $d = .19$, and dependence, $t(418) = 3.355$, $p < .01$, $d = .32$. With the exception of the dependence schema, which was approaching medium on effect size, all other effect size differences between groups on early maladaptive schemas fell into the small range.

Lastly, we examined interpretive scores for early maladaptive schemas for patients with alcohol dependence and opioid dependence separately. These results are presented in Table 3. Results showed that, for women with alcohol dependence, the schemas rated as high or very high most often were self-sacrifice (71.8%), unrelenting standards (55.9%), insufficient self-control (48.2%), and negativity/pessimism (39.5%). The schemas rated high or very high least often for women with alcohol dependence were dependence (17.3%), entitlement (19.5%), failure (20.9%), and enmeshment (23.2%). For women with opioid dependence, results showed that the schemas rated as high or very high most often were self-sacrifice (77.5%), unrelenting standards (52.5%), negativity/pessimism (51.5%), and insufficient self-control (51.0%). The schemas rated high or very high least often for women with opioid dependence were failure (20.5%), emotional inhibition (22.0%), enmeshment (25.5%), and entitlement and vulnerability (27.0% each). Chi-square analyses showed a significant

difference between groups on the schema interpretations of failure, χ^2 (3) = 8.37, $p < .05$, dependence, χ^2 (3) = 12.52, $p < .01$, and punitiveness, χ^2 (3) = 9.14, $p < .05$. As displayed in Table 3, women with opioid dependence were significantly more likely than women with alcohol dependence to score very high on the failure, dependence, and punitiveness schemas.

Discussion

The current study examined the prevalence of early maladaptive schemas among a treatment seeking sample of women diagnosed with either alcohol or opioid dependence. We also sought to examine whether there were differences between diagnostic groups in early maladaptive schemas, as previous research has demonstrated that co-morbid mental health problems may be different across substance use diagnoses (e.g., Grant et al., 2004) and that early maladaptive schemas may vary across disorders as well (i.e., Brotchie et al., 2004). Expanding upon previous research, this is the first study to examine differences in early maladaptive schemas across different substance use diagnoses among a sample of only treatment seeking women.

Overall, our findings demonstrated few diagnostic group differences in early maladaptive schemas, preliminarily suggesting that early maladaptive schemas may be largely consistent across women with an alcohol or opioid dependence diagnosis. These findings are consistent with the research of Brotchie and colleagues (2004) who showed only two significant differences in early maladaptive schemas across a combined sample of male and female alcohol and opioid users. It should be noted that Brotchie and colleagues (2004) found significant diagnostic group differences on the schemas of subjugation and vulnerability, whereas our findings showed differences on the schemas of dependence and punitiveness. Due to methodological differences between our study and that of Brotchie and colleagues, including Brotchie et al.'s use of a combined gendered sample and an older version of the Young schema questionnaire, comparison with this study is difficult.

Although there is a small body of research suggesting that women with an opioid disorder may be more likely than individuals with an alcohol disorder to have a co-occurring personality disorder (i.e., Grant et al., 2004; Skodol et al., 1999), based on our findings it appears that there may be few differences in the cognitive and behavioral patterns that are believed to underlie mental health disorders (i.e., early maladaptive schemas). While our findings are preliminary and require replication, these results suggest that the theoretical underlying pathways to substance use may be largely similar for women with alcohol and opioid dependence.

The effect size for the difference between diagnostic groups on the schema of dependence was in the low-to-medium range, and warrants discussion. The finding that women with an opioid dependence diagnosis scored significantly higher on the schema of dependence appears to be consistent with previous research on personality disorders and substance use diagnoses. That is, research has shown that opioid dependent individuals are more likely than alcohol dependent individuals to meet diagnostic criteria for dependent personality disorder (Grant et al., 2004). The early maladaptive schema of dependence and dependent personality disorder are quite similar. The dependence schema is characterized by a belief that one is incapable of handling everyday problems without significant help or support from other people (Young et al., 2003). Individuals with a dependence schema often feel incompetent and seek out individuals who may be able to take care of them (Young et al., 2003). Dependent personality disorder is characterized by a pervasive, and often excessive, need to be taken care of by other people (American Psychiatric Association, 1994). While this finding should be considered preliminary until replicated, future research might benefit

from examining the similarities between dependent personality and the schema of dependence, as well as possible reasons why this particular schema may be higher in individuals who abuse opioids rather than alcohol.

Consistent with previous research (e.g., Shorey et al., 2011; 2012), the schema of self-sacrifice was the most prevalent schema across patients. Self-sacrifice is distinguished by an excessive focus on meeting the needs of other people, which is generally at the expense of focusing on and meeting one's own needs (Young et al., 2003). Individuals with the self-sacrifice schema generally feel overly responsible for taking care of other people, which often manifests in a lack of emotional fulfillment for oneself (Young et al., 2003). Young and colleagues (2003) stated that the self-sacrifice schema is similar to the concept of codependence. Codependence is a widespread concept in the substance use literature, and often refers to an individual who derives their own esteem through the feelings and/or behavior of other people and who put their welfare below that of another person's welfare (Cermak, 1986; Harkness, Swenson, Madsen-Hampton, & Hale, 2001). Because codependence is a common term used in substance use treatment and is often targeted in substance use treatment (Harkness et al., 2001), it is possible that self-sacrifice represents a pervasive form of codependency and may be beneficial to target in substance use treatment. However, the association between self-sacrifice and codependency remains an empirical question and research should explore their relation.

Findings from the current study, and in conjunction with previous research (Ball, 2007; Brotchie et al., 2004; Roper et al., 2010), suggests that early maladaptive schemas may be an important treatment target in substance use interventions. Indeed, researchers have advocated for the importance of treating co-occurring mental health disorders in substance use treatment programs (Veilleux et al., 2010), as treating co-occurring disorders, such as personality disorders (Rounsaville et al., 1998), has resulted in improved long-term substance use outcomes. Recently, Ball (1998; 2007) has developed Dual-Focused Schema Therapy (DFST) for the concurrent treatment of substance use and early maladaptive schemas. Based on theory that proposes that early maladaptive schemas may underlie and exacerbate mental health problems, including substance use, Ball (1998) proposed that targeting early maladaptive schemas may result in improved substance use outcomes. Drawing on techniques from schema therapy (e.g., cognitive restructuring, behavioral skills training, guided imagery, etc.; Young et al., 1994, 2003) and relapse prevention (Marlatt & Gordon, 1985), DFST has shown promise in reducing early maladaptive schemas and substance use (Ball, 2007).

It should be noted that the purpose of DFST, or schema therapy in general, is not to completely ameliorate schemas, but rather to reduce them to a manageable level and increasing adaptive skill sets for coping with schemas. Indeed, research supports the notion that early maladaptive schemas are relatively stable across time (Riso et al., 2006) but are still amenable to intervention (Young et al., 2003). For instance, Roper and colleagues (2010) showed that early maladaptive schemas reduced after brief (i.e., 3 weeks) residential substance use treatment among alcohol dependent patients. It should be noted that the treatment employed by Roper and colleagues (2010) was abstinence based and psycho-educational in nature (following a social learning model), and did not specifically target early maladaptive schemas. Thus, while additional research is needed to determine whether targeting early maladaptive schemas results in improved substance use outcomes, the high prevalence of schemas in substance use populations suggests that they may be relevant treatment targets.

The current study has a number of limitations that should be considered when interpreting its findings. The cross-sectional nature of the study precludes the determination of causality

among study variables. Longitudinal research is needed to determine whether early maladaptive schemas precede problematic substance use initiation, which would be consistent with theory (Young et al., 2003). In addition, the ethnic composition of participants, which was primarily non-Hispanic Caucasian, and the treatment seeking sample of women limits the generalizability of study findings. There were also no measures of alcohol or opioid use/dependence severity, which hindered our ability to examine the relationship between substance use severity and early maladaptive schemas, or whether schemas were more prevalent among individuals with more severe substance use. It is possible that the differences in schemas found in the current study among diagnostic groups were influenced by severity of substance dependence. Future research should examine the associations between substance use severity and schemas by using standardized substance use measures. Moreover, substance use diagnoses were not made through the use of structured diagnostic interviews. Future work would be improved by the use of structured diagnostic interviews, which would increase confidence in the accuracy of substance diagnoses. In addition, we did not use methods to control for type I error for the large number of statistical tests we conducted, which would have further reduced power. Future studies that are not exploratory in nature should consider using bonferroni or other alpha corrections. Lastly, social desirability may have influenced study findings. Future research would benefit from examining whether social desirability affects responses to early maladaptive schemas. For instance, self-sacrifice is often viewed as desirable and altruistic (Young et al., 2003), and it is possible that one reason why a high percentage of patients identified with this schema is due to social desirability.

In summary, the current study examined early maladaptive schemas among adult women seeking residential treatment for either alcohol or opioid dependence. We also examined whether there were differences in schemas across diagnostic groups. Findings showed that some of the most prevalent early maladaptive schemas across groups were self-sacrifice, unrelenting standards, punitiveness, and insufficient self-control. In addition, results showed that women diagnosed with opioid dependence scored significantly higher than women diagnosed with alcohol dependence on the schemas of punitiveness and dependence, although these differences were relatively small in magnitude. These preliminary findings indicate that early maladaptive schemas may be largely consistent across opioid and alcohol dependent women. Future research should continue to investigate the relevance of early maladaptive schemas in substance use and treatment.

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Table 1

Correlations among Early Maladaptive Schemas for Alcohol and Opioid Dependent Women.

	ED	AB	MA	SI	DEF	FA	DEP	VU	ENM	SUB	SS	EI	US	EN	ISC	APS	NP	PUN
ED	---	.46***	.43***	.37***	.35***	.22**	.16*	.14*	.16*	.32***	.26***	.32***	.23***	.06	.23***	.09	.19**	.17*
AB	.48***	---	.69***	.56***	.62***	.44***	.41***	.44***	.41***	.52***	.48***	.58***	.43***	.38***	.50***	.47***	.55***	.46***
MA	.41***	.67***	---	.54***	.55***	.37***	.37***	.48***	.34***	.58***	.51***	.58***	.50***	.39***	.39***	.41***	.51***	.48***
SI	.39***	.51***	.59***	---	.62***	.47***	.44***	.43***	.34***	.52***	.38***	.56***	.33***	.32***	.45***	.39***	.47***	.30***
DEF	.37***	.63***	.59***	.59***	---	.61***	.53***	.43***	.38***	.61***	.45***	.52***	.51***	.50***	.51***	.50***	.47***	.51***
FA	.19**	.47***	.44***	.57***	.63***	---	.64***	.47***	.33***	.53***	.35***	.46***	.37***	.44***	.44***	.48***	.47***	.35***
DEP	.30***	.60***	.43***	.51***	.67***	.69***	---	.58***	.34***	.51***	.36***	.39***	.30***	.40***	.45***	.43***	.42***	.38***
VU	.21**	.55***	.53***	.49***	.59***	.45***	.55***	---	.42***	.45***	.39***	.45***	.40***	.38***	.46***	.40***	.54***	.34***
ENM	.22**	.44***	.40***	.40***	.51***	.46***	.48***	.42***	---	.46***	.41***	.36***	.35***	.34***	.41***	.45***	.39***	.29***
SUB	.25***	.49***	.44***	.46***	.55***	.47***	.56***	.40***	.52***	---	.64***	.52***	.54***	.32***	.48***	.59***	.52***	.47***
SS	.13	.33***	.33***	.31***	.36***	.30***	.35***	.30***	.38***	.59***	---	.49***	.60***	.30***	.52***	.54***	.46***	.55***
EI	.23***	.40***	.50***	.46***	.54***	.49***	.46***	.50***	.38***	.44***	.30***	---	.45***	.43***	.59***	.42***	.56***	.50***
US	.11	.32***	.35***	.28***	.30***	.18**	.21**	.38***	.28***	.35***	.46***	.38***	---	.44***	.38***	.58***	.49***	.52***
EN	.09	.28***	.39***	.30***	.37***	.28***	.35***	.44***	.33***	.21**	.10	.50***	.43***	---	.54***	.41***	.34***	.37***
ISC	.19**	.46***	.48***	.37***	.54***	.47***	.63***	.53***	.46***	.46***	.24***	.51***	.28***	.65***	---	.50***	.52***	.54***
APS	.19**	.44***	.35***	.37***	.48***	.39***	.49***	.37***	.44***	.60***	.37***	.42***	.46***	.35***	.51***	---	.56***	.47***
NP	.22**	.60***	.51***	.45***	.62***	.53***	.59***	.67***	.48***	.51***	.44***	.53***	.51***	.46***	.62***	.59***	---	.55***
PUN	.26***	.49***	.50***	.47***	.54***	.51***	.49***	.53***	.43***	.41***	.45***	.50***	.55***	.46***	.51***	.49***	.69***	---

Note: Correlations for alcohol dependent women are presented above the diagonal and below the diagonal for opioid dependent women. ED = emotional deprivation; AB = abandonment; MA = mistrust/ abuse; SI = social isolation; DEF = defectiveness; FA = failure; DEP = dependence; VU = vulnerability; ENM = enmeshment; SUB = subjugation; SS = self-sacrifice; EI = emotional inhibition; US = unrelenting standards; EN = entitlement; US = unrelenting standards; ISC = insufficient self-control; APS = approval seeking; NP = negativity/pessimism; PUN = punitiveness.

*$p < .05$

**$p < .01$

*** $p < .001$

Table 2

Mean Differences between Alcohol and Opioid Dependent Women on Early Maladaptive Schemas.

Schema	Alcohol Dependence *M* (*SD*)	Opioid Dependence *M* (*SD*)	*d*
Emotional Deprivation	14.4 (15.1)	13.9 (15.1)	.03
Abandonment	24.5 (24.6)	25.7 (25.4)	.04
Mistrust/Abuse	22.1 (23.7)	22.0 (24.1)	.04
Social Isolation	13.1 (16.2)	13.6 (16.4)	.03
Defectiveness	16.4 (21.2)	20.3 (24.1)	.17
Failure	9.0 (13.0)	10.9 (16.0)	.13
Dependence	9.1 (15.1)	13.8 (19.4)**	.32
Vulnerability	12.3 (14.8)	14.3 (17.3)	.12
Enmeshment	10.7 (15.1)	12.2 (16.2)	.09
Entitlement	9.8 (11.6)	11.8 (14.5)	.15
Insufficient Self-Control	28.8 (20.9)	29.5 (24.2)	.03
Subjugation	14.3 (14.9)	15.5 (16.1)	.07
Self-Sacrifice	46.6 (29.7)	50.1 (28.6)	.12
Emotion Inhibition	11.6 (12.5)	11.0 (13.1)	.04
Unrelenting Standards	32.3 (23.7)	34.4 (26.7)	.08
Approval-Seeking	22.6 (21.0)	22.6 (23.1)	.00
Negativity/Pessimism	18.4 (18.2)	21.5 (20.5)	.15
Punitiveness	24.9 (18.2)	28.8 (21.3)*	.19

Note: *d* = Effect size differences between alcohol and opioid dependent groups

* $p < .05$

** $p < .01$

Table 3

Comparisons between Alcohol Dependent Women and Opioid Dependent Women on Schema Interpretations.

Schema	Alcohol Dependence (*n* = 220) (%)	Opioid Dependence (*n* = 200) (%)
Emotional Deprivation		
High	17.7	15.0
Very High	20.5	19.0
Abandonment		
High	12.7	15.0
Very High	25.9	25.0
Mistrust/Abuse		
High	14.5	10.0
Very High	20.0	22.0
Social Isolation		
High	7.3	12.0
Very High	20.9	19.5
Defectiveness		
High	10.9	7.0
Very High	15.0	22.5
Failure		
High	11.4	5.0
Very High	9.5	15.5
Dependence		
High	5.9	11.0
Very High	11.4	21.0
Vulnerability		
High	14.1	9.5
Very High	12.3	17.5
Enmeshment		
High	12.3	11.0
Very High	10.9	14.5
Entitlement		
High	12.3	16.5
Very High	7.3	10.5
Insufficient Self-Control		
High	19.5	16.5
Very High	28.6	34.5
Subjugation		
High	13.6	18.5
Very High	17.7	20.0
Self-Sacrifice		
High	16.8	17.5
Very High	55.0	60.0

Schema	Alcohol Dependence (*n* = 220) (%)	Opioid Dependence (*n* = 200) (%)
Emotional Inhibition		
High	15.9	10.5
Very High	10.0	11.5
Unrelenting Standards		
High	22.4	12.0
Very High	34.5	40.5
Approval-Seeking		
High	14.5	12.5
Very High	20.0	24.5
Negativity/Pessimism		
High	15.0	16.0
Very High	24.5	30.0
Punitiveness		
High	24.5	19.0
Very High	20.9	32.5

Note: Because schemas rated as low or medium are not generally considered to be of clinical importance, these ratings are not provided in the table for clarity purposes. A full listing of low and medium ratings is available from the first author upon request.