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An Examination of Early Maladaptive Schemas among Substance Use Treatment Seekers and their Parents

Ryan C. Shorey¹, Scott Anderson², and Gregory L. Stuart¹

¹University of Tennessee – Knoxville

²Cornerstone of Recovery, Louisville, TN

Abstract

Early maladaptive schemas, which are cognitive and behavioral patterns of viewing oneself and the world that result in substantial distress, are gradually being documented as important vulnerabilities for substance abuse. Unfortunately, there is limited research on early maladaptive schemas among substance abusers and their family members. Research on this topic may carry important implications for family-focused substance use interventions. The current study examined similarities and differences in early maladaptive schemas among a sample of substance abuse treatment seeking adults ($n = 47$) and at least one parent ($n = 58$). Results demonstrated that the substance abusers scored higher than their parents on 17 of 18 early maladaptive schemas, with most differences falling into the large effect size range. There were some similarities in the specific early maladaptive schemas endorsed by both groups despite substance abusers scoring higher on all schemas. Implications of these findings for future research and family-focused substance use treatment programs are discussed.

Keywords

Early maladaptive schemas; substance use; parents; family

Substance abuse and dependence (herein referred to as “substance abuse”) is a devastating and prevalent problem throughout the world and the economic, social, and personal costs of substance abusers are staggering. For instance, the economic cost of drug abuse in the United States, which includes both health and crime consequences of drug abuse, was estimated at \$180.9 billion in 2002 (Executive Office of the President Office of National Drug Control Policy, 2004). Similar estimates have been obtained for the economic costs of alcohol abuse each year (e.g., Harwood, 2000). Thus, continued research is needed to investigate factors that may help to effectively treat substance abuse. It is increasingly recognized that family members, such as parents, play an integral role in the treatment of substance abuse (Center for Substance Abuse Treatment, 2004). This has resulted in family-focused interventions becoming common components of substance abuse treatment programs. In addition, recent research has begun to examine the underlying risk factors for substance abuse, such as early maladaptive schemas, among substance abusers and their family members (Shorey, Anderson, & Stuart, 2011). However, we are unaware of any research that has examined the early maladaptive schemas of substance abusers and their parents and how they may be related to each other. Therefore, the current study addressed this gap in the literature by examining the early maladaptive schemas of treatment seeking substance abusers and their parents.

Early Maladaptive Schemas

First proposed by Beck (1967), the concept of schemas has received extensive empirical attention in recent years. While there are a number of different definitions and types of schemas (Dattilio, 2006), the current study focuses on early maladaptive schemas. Defined as “self-defeating emotional and cognitive patterns that begin early in our development and repeat throughout life” (Young, Klosko, & Weishaar, 2003; p. 7), early maladaptive schemas influence how individuals encode, process, and respond to stimuli in their environment (Young 1994). Believed to develop during childhood, usually through toxic or traumatic experiences that involve one’s primary caretakers (Young et al., 2003), early maladaptive schemas are core ways of viewing oneself, others, and the world, similar to the concept of “core beliefs” (Riso et al., 2006). Early maladaptive schemas are believed to interfere with individuals’ ability to meet their basic needs, such as autonomy, self-expression, and needs for connection with other people (Young et al., 2003). Moreover, early maladaptive schemas often generate high levels of negative affect and self-defeating behavioral patterns and are highly pervasive and resistant to change (Young et al., 2003).

As outlined by Young and colleagues (2003), there are 18 early maladaptive schemas that individuals can possess and each schema is believed to have the potential to underlie the development and maintenance of a range of mental health disorders, including both Axis I (e.g., depression, posttraumatic stress disorder, substance abuse) and Axis II (e.g., borderline personality disorder; narcissistic personality disorder) conditions (Ball, 1998; Ball & Cecero, 2001; Cockram, Drummond, & Lee, 2010; Giesen-Bloo et al., 2006; Young et al., 2003)¹. For example, the early maladaptive schema of unrelenting standards is focused on achieving perfection in everyday life, whereas the early maladaptive schema of abandonment is focused on the fear that close others will emotionally or physically leave (abandon) an individual (Young et al., 2003). Thus, it is not surprising that research has demonstrated that when early maladaptive schemas are targeted and modified during treatment, mental health problems decrease (Giesen-Bloo et al., 2006; Masley, Gillanders, Simpson, & Taylor, in press).

Early Maladaptive Schemas, Substance Abuse, and Family Functioning

Recent research has begun to investigate early maladaptive schemas among substance abusers (e.g., Brotchie, Meyer, Copello, Kidney, & Waller, 2004; Roper, Dickson, Tinwell, Booth, & McGuire, 2010). Ball (1998) was one of the first to propose that early maladaptive schemas may be relevant to substance abuse, as both early maladaptive schemas and substance abuse tend to be chronic, enduring problems, and schemas are believed to underlie the development and maintenance of difficult clinical problems. Since this time, there have been a number of studies that have demonstrated the relevance of early maladaptive schemas among substance abusers. For instance, research has demonstrated that substance abusers report greater early maladaptive schema endorsement than non-clinical controls (Brotchie et al., 2004; Roper et al., 2010) and their intimate partners who do not have a substance abuse problem (Shorey et al., 2011). Early maladaptive schemas are prevalent among alcohol dependent treatment seeking adults (Shorey, Anderson, & Stuart, 2012) and young adult opioid dependent treatment seeking patients (Shorey, Stuart, & Anderson, 2012). Preliminary research has also demonstrated improved substance abuse outcomes when treatment of substance abuse concurrently focuses on modifying early maladaptive schemas (Ball, 2007).

¹Because all 18 early maladaptive schemas have been outlined elsewhere (e.g., Shorey et al., 2012; Young et al., 2003), the interested reader is referred to these texts for a detailed description of each schema.

While there has been a rapid increase in research on early maladaptive schemas among substance abusers, there is a dearth of research on the early maladaptive schemas of family members of substance abusers. There is a large body of research demonstrating that family members of substance abusers, such as intimate partners, children, and parents, are at an increased risk for mental and physical health problems. For instance, family members of individuals with a substance abuse problem have elevated rates of depression, substance use themselves, asthma, and diabetes when compared to family members of non-substance users (Ray, Martens, & Weisner, 2009). Thus, it is well documented that family members of substance abusers have significant individual struggles that may contribute to personal distress and negative family interaction patterns, and researchers have therefore discussed how a systemic, family focused approach to substance abuse treatment is important (e.g., Crnkovic & DelCampo, 1998). Unfortunately, the lack of research on enduring, maladaptive characteristics and thought patterns that afflict family members of substance abusers, particularly among parents of adult substance abusers, has hindered our knowledge of factors that may impact family-based substance abuse treatment. Because early maladaptive schemas are pervasive, enduring, and cause considerable personal and relation distress (Young et al., 2003), it is possible that both substance abusers and their parents may have schemas that facilitate complex family dynamics that lead to conflict and reduced healthy family functioning.

To date, no known research has examined the early maladaptive schemas of parents of adult substance abusers. One study has examined the early maladaptive schemas of intimate partners of substance abusers (Shorey et al., 2011). Results found that substance abusers score higher on the majority of schemas than their partners and that partners did report a number of early maladaptive schemas as problematic. However, extrapolating these findings to parents of substance abusers is difficult. Parents of adult substance abusers may or may not report early maladaptive schemas as problematic; they may have similar schemas to their adult substance using children, which could indicate an intergenerational transmission of early maladaptive schemas; or parents and substance abusers could have different early maladaptive schemas. Because families often have thoughts, feeling, behaviors, beliefs, and values that are transmitted across generations (Miller, Anderson, & Keala, 2004), it is possible that early maladaptive schemas are also transmitted from parents to their offspring. Empirical research that investigates these questions could provide important information for family-based interventions. If both parents and substance abusers report problematic early maladaptive schemas, these could become targets of intervention and clinicians could determine whether schemas are interfering with family functioning.

Current Study

The current study expanded upon previous research to examine relations between early maladaptive schemas of substance abusers and their parents. Knowledge of whether patients' and parents' early maladaptive schemas are interrelated, and whether parents also struggle with early maladaptive schemas, may help to inform family-focused substance abuse treatment programs. Using pre-existing patient records from an adult inpatient substance abuse program, we examined whether patients scored higher on early maladaptive schemas than their parents and whether patients and parents reported similar early maladaptive schemas as problematic. Due to the exploratory nature of this study, we had no hypotheses regarding these potential differences.

Method

Procedures and Participants

Pre-existing patient chart records from a substance abuse treatment facility program that is located in the Southeastern United States were reviewed for the current study. The substance abuse treatment facility is guided by the traditional 12-step model and also heavily targets the identification and treatment of patients' early maladaptive schemas. The treatment facility only admits patients who have a primary substance abuse disorder diagnosis and are approximately 18 years of age or older.

During a patient's initial intake assessment into the treatment facility, a number of self-report measures are completed, which include the Young Schema Questionnaire – Long Form, Third Edition (YSQ-L3; Young & Brown, 2003), the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Asaland, Babor, de la Fuente, & Grant, 1993), and the Drug Use Disorders Identification Test (DUDIT; Stuart, Moore, Kahler, & Ramsey, 2003; Stuart, Moore, Ramsey, & Kahler, 2004) (discussed in detail below). When patients require medical detoxification, all self-report measures are completed after detoxification. Substance abuse diagnoses at the treatment facility are based on the Diagnostic and Statistical Manual of Mental Health Disorders, Fourth Edition – Text Revision (DSM-IV-TR; American Psychiatric Association, 2000). Diagnoses are made through a consensus by the substance abuse facility's treatment team, which includes a Ph.D. Licensed Psychologist, a Psychiatrist, a general physician, and substance abuse counselors.

As part of the patient's treatment, approximately 3–5 family therapy sessions are conducted with patients' intimate partners, parents, siblings, children, or friends, depending on the unique needs of each patient and the willingness of family members to participate in therapy. For the current study, the charts of patients were reviewed to determine whether they had a parent who completed the YSQ-L3, AUDIT, and DUDIT as part of family therapy. All family members who participate in family therapy at the treatment facility are asked to complete these measures for family therapy purposes. All procedures were approved by the Institutional Review Board (IRB) of the first and last author.

Patient's medical records were searched from May 2011 to December 2011 to determine whether parents who participated in family therapy also completed the YSQ-L3, AUDIT, and DUDIT. This time frame was chosen because May 2011 is when the treatment facility asked all patients and family members to complete the YSQ-L3, AUDIT, and DUDIT. This resulted in a total of 58 parents being identified corresponding to 47 patients. There were slightly more parents than patients because for a few patients both their mother and father participated in family therapy and completed the self-report measures. The majority of patients were male (68.1%) with a mean age of 29.63 ($SD = 9.57$; Range = 18–52). Ethnically, 97.9% were non-Hispanic Caucasian with the remainder being African American. The majority of patients were employed full-time prior to entering treatment (68.1%), with the remainder being employed part-time (10.6%), unemployed (14.9%), or retired/on disability (6.4%). The mean number of years of education completed for patients was 13.44 ($SD = 1.95$). For the 47 patients, the primary substance abuse diagnoses derived from their charts were as follows: 38.3% had a primary diagnosis of polysubstance dependence, 29.8% opioid dependence, 25.5% alcohol dependence, 4.3% cannabis dependence, and 2.1% alcohol abuse.

For parents, the majority were female (77.6%) with a mean age of 58.13 ($SD = 8.66$; Range = 44–87). Ethnically, the majority were non-Hispanic Caucasian (98.3%), with the remainder being African American. Most of the parents were employed full-time (56.9%), followed by retired/on disability (19%), employed part-time (12.1%), and unemployed

(12.1%). The mean number of years of education for parents was 15.18 ($SD = 2.99$). The majority of patients and parents were not living together prior to entering treatment (62.1%). Only 8.6% of parents indicated they had ever sought treatment for a substance abuse problem in their lifetime.

Measures

Demographics—Both patients and parents were asked to indicate their age, ethnicity, education level, and employment status. Parents were also asked to indicate whether they had ever sought treatment for problems with substance abuse (alcohol or drug).

Early Maladaptive Schemas—The Young Schema Questionnaire – Long Form, Third Edition (YSQ-L3; Young & Brown, 2003) was used to examine early maladaptive schemas. The YSQ-L3 is a 232 item self-report measure that assesses the 18 early maladaptive schemas identified by Young and colleagues (2003). Each item is rated on a six point scale (*1 = completely untrue of me; 6 = describes me perfectly*) to indicate how much individuals feel each item describes themselves. A score of 4 or greater on each item contributes to the total score of each specific schema, as a response of 4 or greater indicates that a particular item may be representative of a maladaptive belief or behavior (Young & Brown, 2003). Thus, total scores for each early maladaptive schema are obtained by summing the number of responses rated as a 4, 5, or 6 for all items associated with each schema. Score ranges for each early maladaptive schema are: emotional deprivation (0–54), abandonment (0–102), mistrust/abuse (0–102), social isolation (0–60), defectiveness (0–90), failure (0–54), dependence (0–90), vulnerability (0–72), enmeshment (0–66), subjugation (0–60), self-sacrifice (0–102), approval-seeking (0–84), entitlement (0–66), insufficient self-control (0–90), emotional inhibition (0–54), unrelenting standards (0–96), negativity/pessimism (0–66), and punitiveness (0–90) (Young & Brown, 2003; Young et al., 2003). The YSQ has demonstrated good factor structure, validity, and reliability (Cockram, Drummond, & Lee, 2010; Saariaho, Saariaho, Karila, & Joukamaa, 2009).

The YSQ-L3 also has established cutoff scores for each early maladaptive schema that classifies each schema in low, medium, high, or very high schema endorsement (Young & Brown, 2003). Scores that fall into the *high* and *very high* range indicates that an individual likely struggles with that particular early maladaptive schema; scores of *medium* indicate that a particular schema may be present in an individual and should be given attention/assessed further; and scores of *low* indicate that a particular schema is likely not present in an individual (Young & Brown, 2003).

Alcohol Use—The Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993) was used to assess alcohol use in the previous 12 months. The AUDIT, a 10-item self-report measure, examines the frequency and intensity of alcohol use, symptoms that might indicate tolerance or dependence to alcohol, and negative consequences associated with use. When compared with other measures of alcohol use, the AUDIT has demonstrated a greater ability to identify individuals with a likely alcohol use problem (Reinert & Allen, 2002). Additionally, research has demonstrated good reliability and validity of the AUDIT across a range of populations (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). A score of 8 or greater on the AUDIT is indicative of harmful/hazardous drinking (Babor et al., 2001; Saunders et al., 1993).

Drug Use—The Drug Use Disorders Identification Test (DUDIT; Stuart et al., 2003; 2004) was used to assess drug use in the previous 12 months. Developed to be consistent with the structure of the AUDIT, the DUDIT consists of 14 questions that examine the frequency of illicit drug use across 7 different classes of drugs (cannabis, cocaine, hallucinogens,

stimulants, sedatives/hypnotics/anxiolytics, opiates, and other substances [e.g., steroids, inhalants]) and symptoms that may be characteristic of tolerance or dependence. The DUDIT does not have an established, standard cutoff score to indicate harmful/hazardous drug use. The DUDIT has demonstrated good reliability and validity across multiple samples (Stuart et al., 2008).

Results

All statistical analyses were conducted using SPSS version 18.0. *T* tests were used to examine differences in mean scores of substance use and early maladaptive schemas among patients and their parents. Chi-square analyses were then used to examine interpretive score differences in early maladaptive schemas among patients and their parents. We first examined differences between patients and their parents on substance abuse. Results showed that patients scored higher on the AUDIT, $t(103) = 4.89, p < .001, (M = 12.34; SD = 12.90)$, and DUDIT, $t(103) = 11.12, p < .001, (M = 21.95; SD = 14.90)$ than their parents (AUDIT; $M = 3.82; SD = 2.72$ and DUDIT; $M = .17; SD = .62$). When the cutoff score for the AUDIT was examined for harmful/hazardous drinking, 10.3% of parents met the cutoff score of 8 or greater and 46.8% of the patients met the cutoff score. For patients, 87.2% indicated they had used drugs in the previous 12 months, including cannabis (63.8%), opiates (63.8%), sedatives/hypnotics/anxiolytics (55.3%), cocaine (48.1%), stimulants (27.7%), hallucinogens (23.4%), and “other” (e.g., steroids; inhalants) (21.3%). Only one (1.7%) parent indicated that they had used cannabis in the previous 12 months; two (3.4%) had used opiates; and three (5.1%) indicated that they had used another type of substance (e.g., steroids; inhalants).

Next, we examined whether patients reported higher scores on early maladaptive schemas relative to their parents. This question was examined through the use of *t* tests. Due to the number of analyses conducted, we utilized a bonferroni correction, which set our alpha level to .003. As displayed in Table 1, patients scored significantly higher on 17 of the 18 early maladaptive schemas. The only schema that did not meet the bonferroni corrected alpha value was self-sacrifice, with a *p*-value $< .01$. We also calculated effect size (*d*) differences between patients and their parents on each early maladaptive schema. This was done by comparing the mean schema scores of the two groups, divided by their pooled standard deviations (Cohen, 1988). Following the suggestions put forth by Cohen (1988) for interpreting effect sizes, a small effect size difference is equal to a *d* of .20, a medium effect size difference is equal to a *d* of .50, and a large effect size difference is equal to a *d* of .80. As displayed in Table 1, all effect size differences fell into at least the medium range, with 13 of the 18 differences falling into the large effect size range.

Finally, we examined interpretive scores for early maladaptive schemas for patients and their parents and differences between these interpretations among groups using chi-square analyses. Early maladaptive schemas that were rated as very high or high were combined and coded as a “1” and low and medium endorsed schemas were coded as a “0.” Again, due to the number of analyses conducted, we utilized a bonferroni correction, which set our alpha level to .003. The results of the chi-square analyses are presented in Table 2. Findings demonstrated that patients rated 13 of the 18 early maladaptive schemas as very high/high significantly more often than their parents. The schemas that did not meet the bonferroni corrected level were emotional deprivation, social isolation, failure, self-sacrifice, and unrelenting standards; *p*-values were $< .05$ for these analyses. For patients, the most commonly endorsed early maladaptive schemas were self-sacrifice, insufficient self-control, mistrust/abuse, negativity/pessimism, and punitiveness. For parents, the two highest endorsed schemas were self-sacrifice and unrelenting standards.

Discussion

Consistent with previous research on the comparison between substance abusers and non-treatment seeking controls (e.g., Brotchie et al., 2004; Roper et al., 2010; Shorey et al., 2011), results demonstrated that the treatment seeking substance abusers scored significantly higher than their parents on 17 of the 18 early maladaptive schemas, with the majority of differences being quite large when considered in terms of effect sizes. Moreover, these findings provide preliminary evidence that the majority of early maladaptive schemas may not be transmitted intergenerationally, since parents did not endorse high levels of most early maladaptive schemas. It is possible that children develop different early maladaptive schemas in response to their parents schemas (e.g., the development of unrelenting standards due to a punitive parent). However, it is also possible that some of the parents had previously received psychotherapy for personal problems, or that certain schemas decrease with age, which may have resulted in reductions in early maladaptive schemas. Unfortunately because this question was not assessed in the current study, this remains an empirical question to be answered in future research.

The only schema that patients and parents did not differ on when both total scores and interpretative results were considered was self-sacrifice. This schema is characterized by excessively meeting the needs of other people at the expense of meeting one's own needs and obtaining self-gratification (Young et al., 2003). This is usually done for three main reasons, namely to (1) help others avoid pain, (2) to not feel guilt oneself, and (3) to maintain a connection with others (Young et al., 2003). Young and colleagues (2003) noted that the self-sacrificing schema conceptually overlaps with the concepts of codependency and enabling, which are common terms and issues among substance abusers and their families (Cullen & Carr, 1999; Rotunda & Doman, 2001; Wright & Wright, 1999). Codependency often refers to an excessive preoccupation with the lives of other people (O'Brien, & Gaborit, 1991) and that, in the field of substance abuse, codependent family members often enable substance abuse through unhealthy, overly involved behaviors (Rotunda & Doman, 2001). However, while family members of individuals with a substance abuse problem are often considered the primary individual with codependent "problems," others believe that substance abusers themselves also struggle with codependent issues (Rotunda & Doman, 2001).

Similar to previous research with substance abusers and their intimate partners (Shorey et al., 2011), the self-sacrifice schema was the most commonly endorsed schema for parents, endorsed by 38% of the sample, and one of the most commonly endorsed schemas for patients. As mentioned above, the self-sacrificing behaviors of parents could represent a more pervasive form of enabling and codependent behaviors that support the use of substances. For example, such behaviors might be characterized by a lack of consequences and caretaking, which family members often engage in with substance abusers (Rotunda, West, & O'Farrell, 2004). However, additional research is needed to determine whether the self-sacrificing schema of parents is associated with actual behaviors that support substance abuse or helps the substance abuser reduce contact with negative consequences.

Implications for Future Research and Intervention

The current study provides preliminary evidence that early maladaptive schemas are more prevalent among adult substance abusers than their parents/Although this research should be replicated in other samples, the findings from the current study should be expanded upon in future research. First, research is needed to determine whether the early maladaptive schemas of parents influence the development of early maladaptive schemas and substance abuse in their children. Longitudinal research is needed to investigate these questions. In addition, research is needed to determine whether the early maladaptive schemas of

substance abusers and their parents, either individually or collectively, impact the functioning of families. That is, it is likely that early maladaptive schemas may negatively impact many domains of family functioning, such as communication, problem-solving, and the ability to be emotionally involved with family members. This would certainly be consistent with schema theory (Young et al., 2003), although empirical research is needed in this area.

Another interesting avenue for future research is to investigate the family-level schemas of substance abusers and their parents. Dattilio (2006) discusses “family schemas,” or jointly held beliefs in families that are the result of long-term interactions among family members that become ingrained ways of interacting. While similar to the concept of early maladaptive schemas, family schemas may refer to more basic day-to-day interactions among family members, such as rules for communication, values, and how dependent family members should be on each other (Dattilio, 2006). Family schemas can be positive or negative, and reinforced over time, and are not always part of conscious awareness among family members (Dattilio, 2006). While we are unaware of any known self-report measures or standardized assessment protocols for assessing family schemas, this is an area of research that could prove fruitful for families afflicted by substance abuse. Moreover, research could examine how family schemas influence and interact with early maladaptive schemas.

The current study may also have implications for family-based interventions for substance abuse. Clinicians would be wise to screen for early maladaptive schemas among the primary substance abuser and their family members, such as parents, and attempt to determine how they are impacting functioning among family members. The use of the YSQ-L3 (Young & Brown, 2003) could be helpful for this. There are a number of family-based intervention approaches that could potentially be enhanced by including a focus on early maladaptive schemas. For instance, behavioral-based interventions, such as those that focus on communication skills among family members (e.g., Behavioral Couples Therapy; O’Farrell & Fals-Stewart, 2006), could examine whether early maladaptive schemas serve as “filters” to effective communication or problem-solving among family members. Filters are either situational (i.e., state anger) or chronic problems (i.e., values and beliefs) that interfere with effective communication (O’Farrell & Fals-Stewart, 2006), and it is possible that early maladaptive schemas are a chronic, negative filter to effective communication among family members. This is just one clinical area where research could investigate the impact of targeting early maladaptive schemas among substance abusers and their parents, and future research should determine how cognitive behavioral interventions that focus on early maladaptive schemas impact family functioning and substance abuse. Because cognitive-behavioral therapy has been under utilized by family therapists (Dattilio, 2001), this approach may prove to be especially useful and innovative.

Limitations

There are a number of limitations to the current study that should be discussed when interpreting its findings. First, the cross-sectional design of the current study hinders our ability to determine causality among study variables. It is unclear whether patients’ schemas developed prior to the initiation of substance abuse or whether parents’ schemas influenced the development of patients’ schemas. While theoretical conceptualizations of early maladaptive schemas (Young et al., 2003) would support these assumptions, longitudinal research is needed to examine whether empirically they hold true. A strict reliance on self-report measures also represents a limitation to the current study. Particularly for substance abuse patients, structured diagnostic interviews for substance abuse should be employed to confirm diagnoses, as well as to determine whether there are any co-morbid Axis-I and Axis-II disorders that may impact the relation between substance abuse and schemas. While this is a limitation of the chart review nature of the current study, researchers should develop

studies that incorporate diagnostic interviews. The small sample size also precluded the examination of differences between hazardous drinking parents and non-hazardous drinking parents on early maladaptive schemas, and future research with larger samples should investigate whether these two groups differ on early maladaptive schemas.

Our sample was primarily non-Hispanic Caucasian in ethnicity, limiting the generalizability of our findings to more diverse populations. Moreover, our sample was a highly educated group of substance abuse patients and parents, with the majority of patients and parents having some college education. This also limits the generalizability of our findings to less educated samples of substance abusers and their parents. Another generalizability issue is that our sample of patients was primarily male, while our sample of parents was primarily female. Thus, our results may not generalize to daughters and their fathers, for example. Future research should examine whether results vary depending on the gender of the patient and/or parent. Further, the study may only be generalizable to parents who are willing to participate in the family-related substance abuse treatment of their children. That is, our sample was one of convenience, and it is possible that for some patients their parents were either unavailable for family therapy or declined to participate in family therapy. Unfortunately, this information is not recorded by the treatment facility where charts were reviewed. Future research would benefit from gathering this information and determining how this affects results. Finally, it is important to consider that social desirability may have affected results obtained.

In summary, the current study expanded upon previous research and is the first known study to examine the early maladaptive schemas of adult substance abusers and their parents. Our findings demonstrated that substance abuse patients scored significantly higher on 17 of 18 early maladaptive schemas than their parents. Moreover, patients and parents endorsed a number of early maladaptive schemas as problematic, with parents indicating self-sacrifice as their most common early maladaptive schema. These findings contribute to a growing body of research on the early maladaptive schemas of substance abusers and potential targets of intervention for family-focused substance abuse interventions. Additional research is needed to replicate and extend these findings and to determine whether modifying early maladaptive schemas during family-focused interventions reduces substance abuse and increases positive family interactions.

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Table 1
Mean Differences between Patients and Parents on Early Maladaptive Schemas

Early Maladaptive Schema	Parents (<i>n</i> = 58) <i>M</i> (<i>SD</i>)	Patients (<i>n</i> = 47) <i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>	<i>d</i>
Emotional Deprivation	3.91 (10.75)	12.68 (15.07)	3.47	< .001	.68
Abandonment	2.93 (7.75)	22.04 (23.02)	5.92	< .001	1.17
Mistrust/Abuse	5.43 (10.36)	26.63 (26.57)	5.58	< .001	1.10
Social Isolation	2.01 (6.44)	8.14 (11.16)	3.55	< .001	.69
Defectiveness	.63 (2.93)	12.48 (16.93)	5.23	< .001	1.03
Failure	1.51 (5.70)	7.31 (11.57)	3.35	< .001	.66
Dependence	1.20 (3.64)	13.63 (19.22)	4.82	< .001	.95
Vulnerability	1.56 (3.82)	13.78 (16.25)	5.54	< .001	1.09
Enmeshment	.68 (3.06)	12.08 (15.33)	5.53	< .001	1.09
Entitlement	2.31 (6.35)	11.44 (14.54)	4.30	< .001	.85
Insufficient Self-Control	3.24 (5.58)	28.48 (25.45)	7.34	< .001	1.45
Subjugation	3.15 (8.02)	14.74 (18.27)	4.34	< .001	.86
Self-Sacrifice	22.13 (22.26)	37.45 (30.37)	2.98	< .01	.59
Approval-Seeking	4.48 (9.93)	22.17 (24.61)	4.99	< .001	.99
Emotion Inhibition	2.06 (4.11)	11.61 (15.04)	4.63	< .001	.91
Unrelenting Standards	15.82 (16.22)	29.04 (24.34)	3.32	< .001	.65
Negativity/Pessimism	3.79 (8.01)	21.10 (20.73)	5.84	< .001	1.15
Punitiveness	7.44 (9.57)	24.44 (20.17)	5.68	< .001	1.12

d = effect size differences in patient and parents early maladaptive schemas.

Table 2

Differences between Patients and Parents on Schema Interpretations

Early Maladaptive Schema	Parents (<i>n</i> = 58) (%)	Patients (<i>n</i> = 47) (%)	$\chi^2(df), p$
Emotional Deprivation			4.60 (1), < .05
High/Very High	8.7	25.6	
Low/Medium	91.3	74.4	
Abandonment			21.68 (1), < .001
High/Very High	1.8	36.1	
Low/Medium	98.2	63.9	
Mistrust/Abuse			22.98 (1), < .001
High/Very High	5.2	44.7	
Low/Medium	94.8	55.3	
Social Isolation			7.75 (1), < .01
High/Very High	1.8	17.1	
Low/Medium	98.2	82.9	
Defectiveness			13.63 (1), < .001
High/Very High	0.0	21.3	
Low/Medium	100.0	78.7	
Failure			4.34 (1), < .05
High/Very High	3.5	14.9	
Low/Medium	96.5	85.1	
Dependence			15.16 (1), < .001
High/Very High	0.0	23.5	
Low/Medium	100.0	76.5	
Vulnerability			19.93 (1), < .001
High/Very High	0.0	29.8	
Low/Medium	100.0	70.2	
Enmeshment			13.56 (1), < .001
High/Very High	1.8	25.6	
Low/Medium	98.2	74.4	
Entitlement			10.05 (1), < .01
High/Very High	3.5	25.6	
Low/Medium	96.5	74.4	
Insufficient Self-Control			34.84 (1), < .001
High/Very High	1.8	51.1	
Low/Medium	98.2	48.9	
Subjugation			10.96 (1), < .01
High/Very High	6.9	32.0	
Low/Medium	93.1	68.0	
Self-Sacrifice			3.97 (1), < .05
High/Very High	38.0	57.5	
Low/Medium	62.0	42.5	

Early Maladaptive Schema	Parents (<i>n</i> = 58) (%)	Patients (<i>n</i> = 47) (%)	$\chi^2(df), p$
Emotional Inhibition			15.16 (1), < .001
High/Very High	0.0	23.5	
Low/Medium	100.0	76.5	
Unrelenting Standards			8.08 (1), < .01
High/Very High	20.7	46.9	
Low/Medium	79.3	53.1	
Approval-Seeking			16.17 (1), < .001
High/Very High	5.2	36.2	
Low/Medium	94.8	63.8	
Negativity/Pessimism			21.57 (1), < .001
High/Very High	8.7	49.0	
Low/Medium	91.3	51.0	
Punitiveness			15.45 (1), < .001
High/Very High	6.9	38.3	
Low/Medium	93.1	61.7	