

Depression as a Mediator of the Association between Substance Abuse and Negative Parenting of Fathers

Carla Smith Stover, Ph.D., Anna Urdahl, B.A., and Caroline Easton, Ph.D.

Yale University School of Medicine, Department of Psychiatry and Child Study Center, New Haven, CT 06520, USA

Objective: The role of substance abuse (SA) and depression on paternal parenting has recently gained attention in the research literature. Both SA and depression have been associated with negative parenting in fathers, but studies to date have not examined the mediating role that depression may play in the association of SA and fathering. **Methods:** SA, depression, and parenting data were reported by 87 fathers presenting for SA evaluation. Bootstrap mediation modeling was conducted to determine the role of depression on the association between SA and negative parenting. **Results:** Depression is a significant mediator of the relationship between the severity of fathers' drug use and hostile-aggressive parenting behaviors. Fathers who had concerns about parenting or wanted help to improve the parent-child relationship had significantly higher symptoms of depression. **Conclusions:** Depressive symptoms in fathers entering SA treatment have implications for both the severity of drug abuse and negative parenting behaviors.

Keywords: fathers, depression, substance abuse, parenting

INTRODUCTION

There is ample research related to mothering in the context of a host of psychosocial and psychiatric difficulties. In particular, examination of the impact of maternal depression on mothers' parenting has been the focus of a large body of literature (1–3). Examination of fathering in the context of substance abuse (SA) and other psychiatric difficulties has received much less attention (4–7). Although more limited than the literature on mothering, research indicates fathering in the context of SA and psychiatric difficulties can yield more negative parenting (5,8–11). Further understanding of the mechanisms that lead to maladaptive parenting in the context of SA can have significant intervention implications allowing

clinicians to target specific symptoms and characteristics in their work with clients to help decrease negative parenting and improve functioning within the family system as a whole.

Comorbidity of Substance Abuse and Depression in Men

Data from the National Institute of Drug Abuse (NIDA) suggest that individuals with a mood or anxiety disorder are twice as likely to have comorbid SA or dependence (12). While women tend to have higher rates of depression than men (13), men have higher rates of comorbid depression and polysubstance abuse or dependence (5.9% vs. 3.8%) and higher rates of comorbid depression and other types of SA or dependence (36.3% vs. 20.7%) relative to women (14). Yet, studies have not explored the relationships between SA, depression, and negative parenting behaviors, such as aggression, hostility, rejection, and neglect by fathers.

Paternal Parenting and Substance Abuse

Studies reveal that fathers with a history of alcohol and/or drug abuse report higher levels of parenting stress and poorer communication with their child than nonsubstance-abusing fathers (15). These fathers also report more problematic disciplinary practices and poorer monitoring relative to their nonsubstance-abusing or nonsubstance-dependent peers (11). For example, in a population of drug-abusing men, McMahon et al. (5) found that opioid-dependent fathers had more limited definitions of what it meant to be a father, had poorer relationships with their child's biological mother, were less involved in positive parenting, had poorer views of themselves as fathers, and reported less fathering satisfaction relative to their nonsubstance-abusing peers. In a similar vein, Eiden et al. (10) found that relative to a nonsubstance-abusing community sample, fathers who abused alcohol had more negative father-infant interactions as measured by low paternal sensitivity, positive affect, and verbalizations toward the child. Fathers

who were abusing alcohol had higher levels of negative affect and elicited lower infant responsiveness relative to the fathers who were not abusing alcohol. Of particular interest to the present study was the finding that for fathers, depression mediated the relationship between his alcoholism and sensitivity toward his infant. This study expands on this finding, looking at the relationships between drug- and alcohol-abuse severity, depression, and negative parenting behaviors that might be consistent with child maltreatment. Unlike previous studies, this investigation looks at the mediating role of depression in a clinical sample presenting for an initial intake at a SA treatment facility.

Paternal Parenting and Depression

Although it has not been studied as extensively in fathers as in mothers, depression in fathers has been negatively associated with the time spent with the child (father-child engagement) and the quality of the coparenting relationship. Additionally, noncustodial mothers and fathers with SA problems may experience emotional distress and depression due to the loss of their parental role (16,17). Depression has also been positively associated with parental aggravation and stress (13,18,19) and father-child conflict (20). Although prior research supports that both SA and depression contribute to negative parenting for men, the combination of depression and SA have not been well studied in fathers. Given the higher comorbidity of depression and SA in men and some literature suggesting that negative parenting behaviors in substance-abusing women are more associated with psychopathology than drug abuse (21), examination of such co-occurring symptoms in fathers and the impact on negative parenting is warranted.

The Current Study

To our knowledge, an examination of psychiatric symptoms such as depression that may also be contributing to both the severity of SA and parenting behaviors has not been explored in a sample of men entering SA treatment. This study examines: a) The relationship between SA and negative parenting with depression as a factor mediating this relationship; and b) The relationship between parental depression and fathers' desire to attain additional treatment to improve his parenting skills. In the context of SA treatment, this study has important clinical implications. If depression does, in fact, mediate the relationship between SA and negative parenting, providing treatment for fathers' depression may improve both their SA and parenting skills.

METHODS

Sample

The sample included 87 fathers that were part of a randomly selected sample of 127 men applying for treatment at a Forensic Drug Diversion Clinic from January 2009 to March 2011 that were included in a study on the impact

of fatherhood and SA symptoms (7). These men were referred by the court system for SA evaluation and treatment. Men were eligible for inclusion if they reported being the biological father of a child under the age of 18.

Procedure

At the time of their initial assessment appointment at the clinic, participants completed paper-and-pencil questionnaires and clinicians gathered demographic information from the men.

Measures

Data included basic demographics (e.g., age, ethnicity, living with significant other, relationship status, employment, fatherhood status, number and ages of biological children) and responses to specific questions about whether the fathers in the study would be interested in a parenting class, had concerns about their child, or wanted to discuss fatherhood/parenting issues as part of their treatment (coded as 1 = yes and 0 = no). Additionally, men completed paper-and-pencil questionnaires related to their substance use, mental health symptoms, and parenting behaviors on the following standardized measures:

The *Michigan Alcohol Screening Test* (MAST) is a 25-question self-report instrument (22) used widely to assess the severity of alcoholism. Each item utilizes weighted scoring, with two of the items amounting to the number of times an event occurs. The MAST has shown high validity as both a screening test and a measurement of severity in alcoholism (23).

The *Drug-Abuse Screening Test* (DAST; Skinner (24)) is a self-report questionnaire used to assess drug-use problems. It includes 28 yes/no items that measure symptoms of drug use and dependence. Items are weighted 0 or 1, and responses are summed to arrive at a total score ranging from 0 to 28. Higher scores indicate more severe drug-use problems. The DAST has shown good validity and reliability (25-27).

The *Beck Depression Inventory* (BDI) is a widely used 21-item self-report questionnaire that measures symptoms of depression over a 2-week period. The inventory uses a 4-point Likert scale that ranges from 0 to 3. The total score is calculated by summing the ratings on each scale and can range from 0 to 63 with higher scores indicating greater depression severity (28,29).

The *Parental Acceptance Rejection Questionnaire (PARQ) Short Form* (30) is a 24-item, self-report measure that documents frequency of (a) warm-affectionate, (b) hostile-aggressive, (c) rejecting, and (d) neglectful parenting behavior. Respondents rate how they generally behave toward their child along a 4-point scale that ranges from *Almost never true* (0) to *Almost always true* (3). The PARQ has strong reliability and validity data across 51 studies (30). Although the measure has been implemented much more frequently with mothers, other studies of substance-abusing fathers have utilized the PARQ (5).

Internal consistency reliability for the current sample was adequate for the hostile-aggressive (.70) and warm-affection (.71) subscales, but poorer for rejecting (.30) and neglectful (.42) subscales.

Analytic Plan

First, Pearson product-moment correlations were conducted on the variables of interest to determine the association between the independent SA variables (MAST and DAST totals) and depression (BDI total) and negative parenting (4 PARQ scores). Next, if correlations existed between the MAST and DAST and the PARQ scores, mediational hypotheses were tested using a bootstrapping method with days of contact with their child entered as a covariate in the model. Mediation is often tested using the causal steps approach popularized by Baron and Kenny (31) or the product-of-coefficients approach developed by Sobel (32,33). Both procedures employ the parametric techniques that assume multivariate normality of the sampling distribution of total and specific indirect effects, which can be problematic except in very large samples (34,35). The bootstrapping approach to mediation does not impose such an assumption, a process that simultaneously increases power and maintains reasonable control over the Type I error rate (35). Bootstrapping is a nonparametric resampling technique that empirically generates an approximation of the sampling distribution. The procedure yields point estimates and percentile confidence intervals for indirect and total effects. In this study, bootstrap percentile confidence intervals were further improved using bias correction and acceleration, as recommended by Preacher and Hayes (35).

RESULTS

Preliminary Analyses

The sample included 87 men who were fathers of a child under the age of 18. The mean age of the sample was 35.4 years ($SD = 9.74$) with an average of 12.2 years ($SD = 2.02$) of education. Fifty percent of the sample was employed at least part-time. Men were primarily African American (42.5%) and Caucasian (21.8%), with a small percentage (11.5%) Hispanic, (5.7%) Puerto Rican,

and 3.4% of other ethnicities. Men reported a mean of 6.54 days ($SD = 8.13$) of drinking in the last month, a mean MAST score of 3.66 ($SD = 3.70$), and a mean DAST score of 4.01 ($SD = 4.04$). Approximately 52% reported alcohol as their primary drug of choice followed by cannabis at 23% and cocaine at 5.7%. Only 4.6% of men reported the use of opiates, Phencyclidine, or multiple substances, whereas 9% of the sample denied significant abuse of drugs or alcohol despite an SA-related arrest. Sixty-five percent of men were referred for evaluation due to an arrest for domestic violence while under the influence of alcohol or substances. Others were referred by courts or on probation due to other substance-related charges or failed urine screenings as part of their probation requirements. The mean BDI score was 6.69 ($SD = 8.97$).

Participants reported having from 1 to 5 children with an average of 2.27 ($SD = 1.21$). Children ranged from 1 to 18 years of age. The average age of the youngest child was 5.9 ($SD = 5.7$). Forty percent of men reported having children with multiple women and 45% reported living with a significant other. Twenty-seven percent reported having concerns related to their child or children and 22% reported specific concerns about fatherhood or their relationship with their children. Twenty-three percent indicated they felt they would benefit from a parenting class to learn to manage their children and 18% reported they would like to discuss fatherhood or child-related issues as part of their treatment. Thirty-two percent of fathers reported living with at least one of their children. Of those who did not live with their children, 10% reported that they saw their child less than once per month. Another 16% reported they were not living with their child and did not report the amount of contact per month on the questionnaire. Given the focus on parenting behaviors, those fathers who had less than monthly contact with their children or did not report the amount of contact were excluded from further analysis resulting in a sample of 56 fathers.

As shown in Table 1, Pearson product-moment correlations revealed a significant association of both drug-abuse severity and alcohol-abuse severity and depression. Additionally, depression was significantly positively

TABLE 1. Correlations of depression, alcohol abuse, DA, negative parenting, and days per month that father sees child.

Variable	1	2	3	4	5	6	7	8
1. DA total	–							
2. Alcohol total	.63**	–						
3. Total BDI score	.58**	.28*	–					
4. Days per month see child	–.16	–.07	.05	–				
5. Hostility/aggression	.32*	.09	.42**	.16	–			
6. Indifference/neglect	.13	.08	.22	.05	.44**	–		
7. Undifferentiated rejection	.20	.19	.24	–.24	.25	.42**	–	
8. Warmth/affection	–.03	–.10	.01	–0.03	.08	.25	–.12	–
Mean	3.70	3.06	5.71	19.96	1.00	2.07	.63	21.18
Standard deviation	3.87	3.31	7.61	12.04	1.86	2.45	1.33	3.35

Notes: DA, drug abuse.

* $p < .05$, ** $p < .01$

associated with hostile-aggressive parenting; however, it was not significantly associated with indifference/neglect, undifferentiated rejection, or parental warmth/affection. Drug abuse was also significantly correlated with hostile-aggressive parenting, but alcohol abuse was not (see Table 1). Given the lack of correlation between alcohol-abuse severity and the negative parenting variables, no mediation testing was done between alcohol abuse and fathers' parenting behaviors.

Mediation Models

The bootstrap results (see Figure 1) indicated that the total effect of fathers' drug-abuse (DA) severity on their hostile-aggressive parenting behaviors (total effect = .17, $p = .01$) became nonsignificant when fathers' depression as measured by the BDI was included as a mediator in the model (direct effect of DA = .07, $p = .41$). Furthermore, the analyses revealed, with 95% confidence, that the total indirect effect (i.e., the difference between the total and direct effects) of fathers' drug abuse on hostile-aggressive parenting through depression as the mediator was significant, with a point estimate of .12 and a 95% BCa (bias-corrected and accelerated (36)) bootstrap confidence interval of .04–.35. Thus, depression fully mediated the association between DA and negative parenting behaviors of fathers.

Given the findings that depression is associated with more hostile-aggressive parenting, exploratory analyses were conducted to examine whether fathers who reported that they wanted help with parenting or fatherhood issues as part of their treatment had higher levels of depression, drug abuse, or alcohol abuse. There was significant overlap among response items, where respondents who (a) had concerns about fatherhood or their relationship to their child (or children) also (b) said they would like to participate in a parenting class and (c) said they wanted to discuss fathering issues as part of their treatment. Thus, a dichotomous variable indicating a father endorsed any one of these items was created. Seventeen fathers reported that they had concerns about

fathering and wanted parenting issues to be incorporated into their SA treatment. Analysis of variance (ANOVA) was used to compare fathers who indicated that they wanted help with parenting versus those who did not on severity of their symptoms of depression, SA, alcohol abuse, and how many days per month they saw their children. As shown in Table 2, fathers who had concerns about fatherhood reported significantly higher symptoms of depression, but no differences in substance or alcohol abuse or contact with their children.

DISCUSSION

The study results reveal that, in this sample of fathers presenting for an SA evaluation, the positive association between the severity of fathers' drug use and hostile-aggressive parenting behaviors was mediated by symptoms of depression. This is consistent with findings that parenting behaviors in substance-abusing mothers are more associated with psychopathology than drug use (21). Our findings are also consistent with previous studies that have reported depression in fathers is associated with negative parenting (13,18,19). This suggests that symptoms of depression are particularly important to assess in fathers who are presenting for drug-abuse treatment to determine how depression may be associated with both drug abuse and negative parenting that may be associated with child maltreatment (e.g., hostility and aggression). Targeting fathers' depression could have important clinical implications for reducing the severity of drug abuse and improving the quality of the father-child relationship. This, in turn, could improve child mental health and overall well-being.

Interestingly, no association was found between alcohol severity and negative parenting in this sample. This is contrary to other studies indicating alcohol use is associated with a host of more negative parenting behaviors in fathers. This inconsistency may be due to the wide age range of children in our sample as Eiden and colleagues specifically studied father-infant interactions (8–10). The

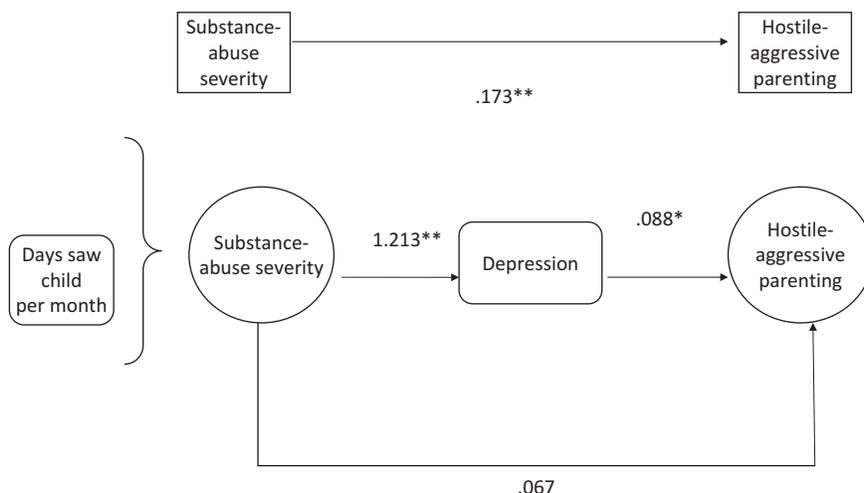


FIGURE 1. Mediation model.

TABLE 2. Relationship between reports of a wish for help related to fathering as part of their DA treatment and symptoms.

Variable	F	Fathers who want parenting help mean (SD)	Fathers who do not mean (SD)
Depression	4.07*	10.53 (11.18)	5.70 (8.12)
DA	.63	4.70 (3.53)	3.83 (4.16)
Alcohol abuse	.40	3.82 (3.86)	3.61 (3.69)
Days with child per month	1.26	14.00 (14.38)	18.24 (12.70)

Notes: DA, drug abuse.

* $p < .05$.

range of alcohol-abuse severity was also low with a mean MAST score of 3.66. It may be that a sample of more severe alcohol abuse and dependence would yield results consistent with other studies.

Also of importance was the finding that men who had concerns about fatherhood or their relationship and would like a parenting component as part of their treatment reported significantly higher symptoms of depression, but had similar levels of DA and alcohol-abuse severity to fathers who did not want this type of help. This indicates that fathers presenting for DA evaluation who have significant depression symptoms may be most open to and benefit from a treatment program that incorporates a focus on parenting and the father-child relationship.

Limitations

This study was meant to provide a preliminary examination of the association of depression to the SA and parenting behaviors of fathers presenting for an SA treatment evaluation at a forensic drug diversion clinic and the implications for assessment and treatment. Although the results provide important preliminary evidence for the mediating role of depression in DA severity and hostile-aggressive parenting behaviors, it has several limitations. First, clients were specifically referred to the clinic for an arrest and court involvement. Whether these results translate to the broader population of substance-abusing men in a variety of treatment settings is unclear. The study depended on fathers' self-reports of their SA, depression, and parenting behaviors. Collateral informants such as the reports of partners or co-parents about the parenting behaviors of fathers and information from child protective services records would have strengthened the reliability and validity of the results. The time frame of depression symptom reports on the BDI is within the last 2 weeks whereas the PARQ was designed to assess how parents generally behave toward their children. Future studies might examine more closely how the ratings of depression symptoms are associated with parenting behaviors in the same time period (e.g., Do negative parenting behaviors increase on days when fathers report more depressive symptoms?). The MAST and DAST are widely used tools with solid psychometrics, but they were designed as screening tools. They are not meant to diagnose SA or

dependence. Further exploration of SA diagnoses related to depression and parenting is needed.

CONCLUSIONS

Overall, these findings point to the benefits of evaluating both depressive symptoms and parenting behaviors and concerns of fathers entering SA treatment. Depression may provide a particularly important intervention target for fathers with co-occurring drug abuse and depressive symptoms that may improve outcomes for both fathers and their children. Additionally, fathers with co-occurring drug abuse and depressive symptoms may be particularly interested and open to incorporating parenting interventions into their SA treatment.

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Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

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