Published in final edited form as:
Addict Behav. 2014 May ; 39(5): 897–900. doi:10.1016/j.addbeh.2014.02.003.

Parenting Under the Influence: The Effects of Opioids, Alcohol and Cocaine on Mother-Child Interaction

Natasha Slesnick[1], **Xin Feng**[1], **Brittany Brakenhoff**[1], and **Gregory S. Brigham**[2]

[1] Department of Human Sciences The Ohio State University

[2]Maryhaven, Columbus, Ohio

Abstract

Nearly 20% of adults receiving treatment for a substance use disorder live with their minor children (Stanger et al., 1999) and women in drug use treatment are twice as likely as men to have children in their household (Wechsberg et al., 1998). Parental drug use impacts the family through reduced family resources such as money and food, and researchers consistently note parenting deficits among substance users (Solis, Shadur, Burns, & Hussong, 2012). Little is known about differences in parenting and mother-child interaction among mothers with different drugs of choice or among mothers of older children, between 8 to 16 years. This study reports the findings from a sample of treatment seeking opioid, alcohol and cocaine using mothers and their 8-16 year old child. Findings from a mother-child observational task and self-reported parenting measure indicated less undermining autonomy and mother maternal acceptance among opioid compared to alcohol addicted mothers. African American mothers were observed to have fewer negative interactional behaviors than Whites and both African American mothers and children self-reported higher firm control and maternal acceptance. Overall, mothers appeared to struggle with effective discipline with older versus younger children. Findings offer useful information to clinicians seeking to effectively tailor their interventions to women and children who present with different drugs of abuse, race/culture and developmental stage of child.

Address correspondence to Dr. Natasha Slesnick, Department of Human Sciences, The Ohio State University, 135 Campbell Hall, 1787 Neil Ave, Columbus, OH 43210. Phone: (614) 247-8469; FAX: (614) 292-4365; slesnick.5@osu.edu..

Author Disclosure

Contributors

The first and fourth authored designed and executed the study. The first author completed the majority of the writing. The second author had primary responsibility for analyzing and reporting the data for this study. The third author drafted the introduction to the paper. All authors approved of the final manuscript.

Conflict of Interest

There are no conflicts of interest by any author.

1. Introduction

While it is well-established that mothers with an opioid use disorder differ from non-addicted mothers in terms of parenting, less is known about how mothers with an opioid use disorder differ from mothers with other substance use disorders (Hogan, 2003). Further, while a small number of studies have examined substance use disordered mothers' interactions with their infant or young child (Burns, Chethik, Burns, & Clark, 1997; Hagan & Myer, 1997; Mayes & Truman, 2002; Neuspiel, Hamel, Hochberg, Greene, & Campbell, 1991); studies that have examined substance use disordered mothers of older children have primarily relied on self-report data (Sollis et al., 2012). The current study addresses this gap in the literature by including an observational assessment of mothers and their 8 to 16 year old children in addition to mother and child self-report of parenting. A better understanding of parenting and the unique mother-child interaction patterns is necessary for targeting parenting interventions for these families, as well as indicating whether parenting interventions should be modified for mothers with different presenting drugs of choice.

Previous research has focused on two dimensions of parenting: parental warmth and parental control (Amato, 1990; Schaefer, 1965). Briefly, parental control refers to the amount of discipline and supervision parents provide as well as the amount of independence and autonomy they encourage (Amato, 1990; Schaefer, 1965). Parental warmth refers to the positive interactions and emotions experienced in the parent-child relationship such as love, acceptance, support, and closeness (Schaefer, 1965). Previous studies have generally found that mothers with substance use disorders struggle with both dimensions of parenting (Gruber & Taylor, 2006; Mayes & Truman, 2002; Suchman, Rounsaville, DeCoste, & Luthar, 2007). Among children of substance use disordered mothers lower levels of parental control and warmth predict higher levels of externalizing problems, depression, and school maladjustment (Luthar & Sexton, 2007; Suchman et al., 2007).

Surprisingly little research has examined the unique impact of different drugs of choice on African American drug users. However, race appears to influence substance use related consequences (Bernstein et al., 2005; Patkar et al. 1999; Zapolski, Pedersen, McCarthy, & Smith, 2013) parental discipline (Deater-Deckard, Bates, Dodge, & Pettit, 1996), monitoring (Slesnick et al., 2012), and communication patterns (Baldwin, Baldwin, & Cole, 1990; Steinberg, Dornbusch, & Brown, 1992).

The mother-child relationship may also differ based on children's age. Stanger and colleagues (2004) found that within substance use disordered families with children between the ages of 2 to 18 years, poor parental monitoring increased with child's age and positive parenting behaviors decreased with age. Taken together, by understanding factors unique to mothers based on their drug of choice (opioids, alcohol, or cocaine), race, and age of child, it will be possible to develop targeted interventions for these mothers and their children. The current study utilizes baseline data from a clinical trial designed to evaluate the efficacy of a family systems therapy with substance abuse treatment seeking mothers recruited through a community based treatment program in a large Midwestern city.

2. Methods

2.1. Participants

Participants included 183 mother-child dyads. Mothers were eligible to participate if: 1) they had a child between the ages of 8-16 who lived with them at least 50% of the time for the past 2 years or 100% of the time in the past 6 months, 2) were seeking outpatient treatment for their substance use disorder, and 3) met diagnostic criteria for an alcohol or drug use disorder. Mother's ages ranged from 22 to 54 years (M = 33.9) and the target child's ages ranged from 8 to 16 (M = 11.5). Mothers reported having 1 to 11 children (M = 3.2). Nearly half of the mothers reported opioids as their drug of choice (89 mothers, 48.6%), 60 mothers (32.8%) reported alcohol and 34 mothers (18.6%) reported cocaine as their drug of choice. However, there was a high overlap between alcohol and cocaine use. Of the 34 women who reported cocaine as their drug of choice, 33 also reported alcohol use in the last 90 days. Because of the overlap in alcohol and cocaine use, this group is referred to as the cocaine/alcohol group. Thus, the final groups utilized in the analyses included 89 opioid using mothers, 57 alcohol using mothers, and 37 cocaine/alcohol using mothers.

2.2. Procedure

The Ohio State University Institutional Review Board approved all study procedures. Both the mother and target child completed several individual and family measures as well as a video recorded interaction task. Mothers were offered a $75 gift card while children were offered a $40 gift card for completing the assessment interview.

2.3 Measures

2.3.1. The Form-90—(Miller, 1996) is a structured interview and was used to measure mother's frequency of substance use and assess the mother's primary drug of choice. It has demonstrated high test-retest reliability (Tonigan et al., 1997; Westerberg et al., 1998).

2.3.2. Parental Warmth and Control—Child's Report of Parental Behavior Inventory (CRPBI) includes 56-items used to measure child-report of acceptance/rejection, psychological autonomy/control, and firm/lax control (Margolies & Weintraub, 1977). The Parent Form of the CRPBI (Schwarz et al, 1985) was used to measure mothers' reports of parental warmth and control. The measures have shown high levels of internal consistency (Margolies & Weintraub, 1977; Schwarz et al, 1985).

2.3.3. Observation of Parent-Child Interaction—A 10 minute interaction between mother and child was video recorded in the family's home. The interaction was coded using the Autonomy and Relatedness coding system (Allen et al., 2000). The coding system consists of 10 categories which rates behaviors based on whether the behavior promotes or undermines autonomy or relatedness (Allen, Porter, McFarland, McElhaney, & Marsh, 2007). Following the procedures outlined in the coding manual, an autonomy and relatedness composite score was created for both the mother and the child (Allen, Hauser, Bell, Boykin, & Tate, 1994). Twenty percent of the observations were double-coded, and coding reliability (ICC) was .70.

3. Results

Scores from the current study were compared to clinical cut-off scores for the CRPBI. The following were used as clinical cut-off scores: less than 51 for acceptance/rejection, less than 26 for autonomy/psychological control, and less than 18 for firm/lax control (Suchman et al., 2007). Mothers' mean scores fell below the clinical cut-off scores for the CRPBI on all three subscales.

3.1 Observed Mother-child Interaction during the Family Discussion Task

Mothers' and children's behaviors were coded separately, and three variables were derived from the coded behaviors in the family discussion, autonomous-relatedness, undermining autonomy, and undermining relatedness. For each variable, a mixed-effect regression analysis was conducted with grouping status, race, actor (child vs. mother), and group by race and group by actor interactions as predictors and child age as a covariates. Two dummy variables (alcohol versus opioid use and cocaine/alcohol versus opioid use) were created to represent three groups in the analyses. The interaction terms were not significant on any of the analyses and were removed. With autonomous-relatedness, a difference between the child and mother was found, $t(181) = 14.57$, $p < .001$, with mothers displaying higher levels of autonomous-relatedness than the children. Child age was also associated with autonomous-relatedness, $t(181) = 5.13$, $p < .05$, in that older children displayed higher levels of autonomous-relatedness. On undermining autonomy, effects of group [$t(181) = 2.36$, $p < .05$], race [$t(181) = 3.15$, $p < .01$], and actor [$t(181) = 5.42$, $p < .001$] were found. Specifically, dyads in the alcohol group were higher than the opioid group, White dyads were higher than African American dyads, and mothers were higher than children in undermining autonomy. For undermining relatedness, there was a difference between the children and mothers, $t(181) = -2.53$, $p < .05$, with children showing more of such behavior than their mothers.

3.2 Parenting

Both the children and the mothers rated maternal parenting on three dimensions, acceptance/rejection, psychological control/autonomy, and firm/lax control. Each parenting dimension was analyzed using a repeated measures ANOVA with informant (child vs. mother) as within-subject factors, group and race as between-subject factors, and child age as a covariate. Group by race interaction was initially included in the analyses, but was then removed because it did not contribute to the explanation of any of the dependent variables. The analysis on maternal acceptance/rejection yielded a group effect [$F(2,175) = 3.21$, $p < .05$, $\eta^2 = .04$] and race effect [$F(1,175) = 8.06$, $p < .01$, $\eta^2 = .05$], as well as a child age effect [$F(1,175) = 30.40$, $p < .001$, $\eta^2 = .14$] with older children and mothers of older children reported lower levels of maternal acceptance. Children's and mothers' ratings did not differ. Results indicated that children and mothers in the opioid group reported higher levels of maternal acceptance than those in the alcohol and cocaine/alcohol groups (Table 1), and African American children and mothers reported higher levels of maternal acceptance than their White counterparts (Table 2).

For maternal psychological control/autonomy, older children and mothers of older children reported mothers as exerting higher levels of psychological control, $F(1,175) = 8.30$, $p < .01$, $\eta^2 = .05$. With regard to maternal firm/lax control, a race effect [$F(1,175) = 13.07$, $p < .001$, $\eta^2 = .07$] was found. Specifically, African American children and mothers reported higher levels of maternal firm control than White children and mothers (Table 2). In addition, younger children and mothers of younger children reported higher levels of maternal firm control, $F(1,175) = 16.21$, $p < .001$, $\eta^2 = .09$.

4. Discussion

Observational findings suggest that the relationship between opioid addiction, parenting and parent-child interaction may be less negative than for alcohol addiction. During the observational task, opioid-addicted women showed less undermining autonomy behaviors than the alcohol use disordered mothers. Furthermore, opioid addicted mothers and their children self-reported more maternal acceptance than did the comparison mothers and children. As these mothers had not yet begun their treatment for substance use disorder, the observed differences may be associated with the clinical effects of opioid use which include anxiety reduction, euphoria and a profound sense of well-being. However, overall, the self-reported parenting scores for opioid, alcohol and cocaine/alcohol abusing mothers fell into the range observed for clinical samples, supporting prior studies' conclusions that in general, substance use disordered mothers struggle with parenting and parent-child interaction.

Similar to national reports, opioid addiction was primarily observed among White mothers (80.9%) while alcohol and cocaine/alcohol addiction was primarily observed among African American mothers (70.2%) (Bernstein et al., 2005; SAMHSA, 2012). African American mothers were observed to show less negative parenting than Whites, in terms of lower undermining autonomy behaviors. African American mothers and their children also self-reported higher firm control and higher maternal acceptance than Whites. Higher firm control among African American mothers has been widely reported, and is generally perceived positively, as caring, by youth in these families and to have a positive impact on African American youth outcomes (Brody & Flor, 1998; Garcia Coll & Pachter, 2002). These findings support a group difference hypothesis, supporting the use of culturally relevant models of socialization when working with substance use disordered African American mothers and their children.

Differences by child age were observed. Compared to younger children, older children were observed to express higher autonomy-relatedness, indicating more promoting than undermining behaviors. With greater cognitive awareness of mothers' limitations, older children may experience and express more sensitivity towards them (Roberts & Strayer, 1996). In regard to mothers, it appears that they struggle more with effective discipline with older compared to younger children. That is, mothers were more likely to use psychological control strategies (inducing guilt, intrusive parenting, etc.) rather than promote autonomy among older children. This finding might indicate that mothers struggle to adapt to the changing developmental needs of their children.

4.1. Implications for Practice and Conclusions

Considering the limitations of a cross-sectional design and sample of convenience, the findings reported here support research indicating different behavioral and social consequences associated with different drugs of choice. Although few treatment programs for substance use disorders offer relational therapy to mothers with children in their care, family therapy interventions that engage substance using mothers and their children in treatment provide an opportunity to address strains in the mother-child relationship and support mothers' parenting efforts as she moves towards sobriety. This study also indicates that sensitivity to cultural and developmental differences in parenting and mother-child interaction associated with age of the child appear to be important factors to consider when effectively intervening with these families.

Acknowledgments

Role of Funding Sources

This research was supported by NIDA grant R01 DA023062 to the first author. NIDA had no involvement in the in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

References

Allen J, Hauser S, Bell K, O'Connor T. Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem. Child Development. 1994; 65:179–194. [PubMed: 8131646]

Allen, J.; Hauser, S.; Bell, K.; McElhaney, K.; Tate, D.; Insabella, G., et al. The autonomy and relatedness coding system. University of Virginia; Charlottesville: 2000. Unpublished manuscript

Allen J, Porter M, McFarland F, McElhaney K, Marsh P. The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. Child Development. 2007; 78:1222–1239. [PubMed: 17650135]

Achenbach, TM.; Edelbrock, CS. Manual for the Child Behavior Checklist and Child Behavior Profile. Child Psychiatry, University of Vermont; Burlington, VT: 1982.

Amato P. Dimensions of the family environment as perceived by children: A multidimensional scaling study. Journal of Marriage and the Family. 1990; 52:613–620.

Baldwin, A.; Baldwin, C.; Cole, R. Stress-resistant families and stress resistant children. In: Rolf, J.; Masten, A.; Cicchetti, D.; Nuecheterlein, K.; S.; Weintraub, editors. Risk and protective factors in the development of psychopathology. Cambridge University Press; New York: 1990. p. 257-280.

Bernstein E, Bernstein J, Tassioipoulos K, Valentine A, Heeren T, Levenson S, Hingson R. Racial and ethnic diversity among a heroin and cocaine using population: Treatment system utilization. Journal of Addictive Diseases. 2005; 24:43–63. [PubMed: 16368656]

Burns KA, Chethik L, Burns WJ, Clark R. The early relationship of drug abusing mothers and their infants: An assessment at either to twelve months of age. Journal of Clinical Psychology. 1997; 53:279–287. [PubMed: 9075056]

Brody GH, Flor DL. Maternal resources, parenting practices, and child competence in rural, single-parent African American families. Child Development. 1998; 69:803–816. [PubMed: 9680686]

Deater-Deckard K, Dodge K, Bates J, Pettit G. Physical discipline among African American and European American mothers: Links to children's externalizing behaviors. Developmental Psychology. 1996; 32:1065–1072.

García Coll, CT.; Pachter, L. Ethnic and Minority Parenting. In: Bornstein, MH., editor. Handbook of Parenting, Volume 4: Social Conditions and Applied Parenting. 2nd. Lawrence Erlbaum Publishers; Mahwah, NJ: 2002.

Gruber KJ, Taylor MF. A family perspective for substance abuse: Implications from the literature. Journal of Social Work Practice in the Addictions. 2006; 6:1–29.

Hagan JC, Myers BJ. Mother–toddler play interaction: A contrast of substance-exposed and nonexposed children. Infant Mental Health Journal. 1997; 18:40–57.

Hogan D. Parenting beliefs and practices of opiate-addicted parents: Concealment and Taboo. European Addiction Research. 2003; 9:113–119. [PubMed: 12837989]

Luthar S, Sexton C. Maternal drug abuse versus maternal depression: Vulnerability and resilience among school-age and adolescent offspring. Development and Psychopathology. 2007; 19:205–225. [PubMed: 17241491]

Margolies PJ, Weintraub S. The revised 56-item CRPBI as a research instrument: Reliability and factor structure. Journal of Clinical Psychology. 1977; 33:472–476.

Mayes, L.; Truman, S. Substance abuse and parenting. In: Bornstein, M., editor. Handbook of parenting, volume 4: Social conditions and applied parenting. 2nd. Vol. 4. Lawerence Erlbaum Associates; Mahwah, NJ: 2002. p. 329-359.

Miller, WR. Project MATCH Monograph Series. Department of Health; Bethesda, MD: 1996. Form 90 Structure assessment interview for drinking and related problem behaviors. 5, U.S.

Neuspiel DR, Hamel SC, Hochberg E, Greene J, Campbell D. Maternal cocaine use and infant behavior. Neurotoxicology and Teratology. 1991; 13:229–233. [PubMed: 2046640]

Patkar A, Sterling R, Gottheil E, Weinstein S. A comparison of medical symptoms reported by cociane-, opiate-, and alcohol-dependent patients. Substance Abuse. 1999; 20:227–235. [PubMed: 12511830]

Roberts W, Strayer J. Empathy, emotional expressiveness, and prosocial behavior. Child Development. 1996; 67:449–470.

Schaefer E. Children's reports of parental behavior, an inventory. Child Development. 1965; 36:413–424. [PubMed: 14300862]

Schwarz JC, Barton-Henry ML, Pruzinsky T. Assessing child-rearing behaviors: A comparison of ratings made by mother, father, child, and siblings on the CRPBI. Child Development. 1985; 56:462–479. [PubMed: 3987419]

Solis J, Shadur J, Burns A, Hussong A. Understanding the diverse needsof children whoe parents abuse substances. Current Drug Abuse Review. 2012; 5:135–147.

Steinberg L, Dornbusch S, Brown B. Ethnic differences in adolescent achievement: An ecologcial perspective. American Psychologist. 1992; 47:723–729. [PubMed: 1616171]

Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Treatment Episode Data Set (TEDS): 2000-2010. National Admissions to Substance Abuse Treatment Services. Rockville, MD: 2012. DASIS Series S-61, HHS Publication No. (SMA) 12-4701

Suchman N, Rounsaville B, DeCoste C, Luthar S. Parental control, parental warmth, and psychosocial adjustment in a sample of substance-abusing mothers and their school-aged and adolescent children. Journal of Substance Abuse Treatment. 2007; 32:1–10. [PubMed: 17175393]

Stanger C, Higgins S, Bickel W, Elk R, Grabowski J, Schmitz J, Amass L, Seracini A. Behavioral and Emotional Problems Among Children of Cocaine and Opiate-Dependent Parents. Journal of the American Academy of Child and Adolescent Psychiatry. 1999; 38:421–428. [PubMed: 10199114]

Stanger C, Dumenci L, Kamon J, Burstein M. Parenting and children's externalizing problems in substance-abusing families. Journal of Clinical Child & Adolescent Psychology. 2004; 33:590–600. [PubMed: 15271616]

Tonigan J, Miller W, Brown J. The reliability of Form 90: An instrument for assessing alcohol treatment outcome. Journal of Studies on Alcohol and Drugs. 1997; 58:358–364.

Wechsberg WM, Craddock SG, Hubbard RL. How are women who enter substance abuse treatment different than men? A gender comparison from the Drug Abuse Treatment Outcome Study (DATOS). Drugs & Society. 1998; 13:97–115.

Westerberg VS, Tonigan JS, Miller WR. Reliability of Form 90D: An instrument for quantifying drug use. Substance Use. 1998; 19:179–18.

Highlights

1. Women addicted to opioids, compared to alcohol, show less negative parenting.
2. Overall, all mothers fell into the clinical range on parenting behaviors.
3. African American mothers showed less negative parenting behaviors than Whites.
4. Overall, mothers appear to struggle with effective discipline for older children.
5. Treatment should attend to drug of choice, culture and developmental age.

Table 1

Means and Standard Deviations by Drug of Choice

	Alcohol				Cocaine/Alcohol				Opioid			
	Child		Mother		Child		Mother		Child		Mother	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Autonomous-relatedness	4.16	2.65	7.02	2.13	4.14	2.91	7.22	1.82	3.99	2.55	6.79	2.40
Undermining autonomy	1.55	1.36	2.31	1.49	1.64	1.44	2.36	1.73	1.46	1.50	1.92	1.62
Undermining relatedness	0.87	0.79	1.02	0.91	1.07	1.25	1.11	1.32	1.36	1.55	0.86	1.16
Acceptance	36.92	9.82	38.15	7.23	33.82	10.27	35.70	9.50	37.21	9.86	39.61	7.07
Psychological autonomy	18.54	6.84	18.35	5.42	15.85	4.96	18.33	7.30	18.41	7.51	21.08	6.77
Firm control	22.74	4.71	22.93	4.71	21.44	4.51	19.36	5.77	20.76	5.31	19.99	5.09

Table 2

Means and Standard Deviations by Race

	African American				European American			
	Child		Mother		Child		Mother	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Autonomous-relatedness	3.83	2.79	6.90	2.19	4.29	2.50	6.98	2.23
Undermining autonomy	1.21	1.27	2.19	1.60	1.81	1.53	2.08	1.62
Undermining relatedness	0.78	0.84	1.05	1.13	1.48	1.55	0.88	1.11
Acceptance	37.33	9.51	38.80	7.73	35.64	10.35	37.95	7.83
Psychological autonomy	17.74	6.56	18.83	5.65	18.09	7.21	20.89	7.30
Firm control	22.61	4.26	22.41	5.01	20.56	5.45	19.35	5.16