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Drug Abuse and Intimate Partner Violence: A Comparative Study of Opioid-Dependent Fathers

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Abstract

Because very little is known about the coparenting relationships of drug-abusing men, this comparative study was designed to examine the lifetime prevalence and recent frequency of intimate partner violence in the coparenting relationships of 106 fathers enrolled in methadone maintenance treatment. When compared with 118 community controls, the opioid-dependent fathers reported greater prevalence of physical, sexual, and psychological aggression directed at the mother of their youngest biological child over the course of the relationship. They also reported more frequent physical, sexual, and psychological aggression directed at the mother during the previous year. Similarly, the opioid-dependent fathers reported both greater prevalence of physical and sexual aggression directed at them by the mother of their youngest child over the course of the relationship and more frequent sexual aggression directed at them over the previous year. The results highlight the need for clinicians to consider risk for intimate partner violence in coparenting relationships when planning family-oriented intervention designed to meet the needs of fathers, mothers, and children affected by chronic drug abuse.

Keywords

fathers; opioid-dependent fathers; intimate partner violence; aggression; drug abuse; coparenting relationships; methadone maintenance treatment

Domestic violence, or intimate partner violence, is a commonly occurring public health problem in the United States. Researchers (e.g., Schafer, Caetano, & Clark, 1998; Tjaden & Thoennes, 2000; Whitaker, Haileyesus, Swahn, Saltzman, 2007) estimate that approximately one in five couples involved in a sexual relationship has experienced at least one episode of serious intimate partner violence. Physical, sexual, and psychological abuse of intimate partners initiated by men and women is relatively common (see, e.g., Schafer et al., 1998; Tjaden & Thoennes, 2000; Whitaker et al., 2007), and both men and women who report having been the target of intimate partner violence often confirm more than a single exposure (Tjaden & Thoennes, 2000). Although some forms of physical abuse may be initiated by women as frequently as they are initiated by men (for a review, see Archer, 2000), other forms of intimate partner violence are more frequently perpetrated by men (see, e.g., Tjaden & Thoennes, 2000), and women consistently report more frequent exposure to more serious forms of physical, sexual, and psychological abuse with more frequent injury (see, e.g., Schafer et al., 1998; Tjaden & Thoennes, 2000; Whitaker et al., 2007). Reciprocal aggression initiated by both men and women also occurs very frequently within sexual

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partnerships characterized by intimate partner violence, usually in more severe forms with greater risk for injury to both partners (see, e.g., Whitaker et al., 2007).

Alcohol Abuse and Intimate Partner Violence

When either or both partners abuse alcohol, risk for intimate partner violence increases significantly. Systematic review of the relationship suggests that the association is strongest within clinical populations of men with more serious alcohol problems (Foran & O'Leary, 2008). For example, Cunradi, Caetano, Clark, and Schafer (1999) found a significant relationship between alcohol problems and intimate partner violence for both men and women in the general population that was mediated by demographic characteristics, psychosocial influences, and the alcohol problems of the partner. Similarly, O'Farrell and his colleagues (O'Farrell, Fals-Stewart, Murphy, and Murphy, 2003; O'Farrell, Murphy, Stephan, Fals-Stewart, & Murphy, 2004) showed that, when compared with demographically matched controls, men entering alcohol treatment reported more intimate partner violence during the previous year. Within a sample of men and women arrested during a domestic incident, Stuart et al. (2006) found a significant relationship between severity of alcohol problems and perpetration of physical and psychological aggression, and Fals-Stewart (2003) discovered that, among men seeking treatment for alcohol abuse or intimate partner violence, the probability of severe physical aggression directed at a female partner was 11 times greater on days the men used alcohol when compared with days they abstained.

Drug Abuse and Intimate Partner Violence

Systematic review of research conducted from several different perspectives has also documented a relationship between the use of illicit drugs and intimate partner violence (Moore et al., 2008). At this time, use of cocaine, amphetamines, and marijuana have been linked with risk for intimate partner violence within both the general population and populations of men seeking treatment for either substance abuse or intimate partner violence (Moore et al., 2008). For example, Coker, Smith, McKeown, and King (2000) showed that, within the general population, chronic drug abuse is associated with elevated risk for intimate partner violence by men. Likewise, Chermack, Walton, Fuller, and Blow (2001) found that more frequent use of cocaine and marijuana were both associated with more frequent perpetration of intimate partner violence and more frequent exposure to intimate partner violence among men and women enrolled in substance abuse treatment.

Moreover, Murphy, O'Farrell, Fals-Stewart, and Feehan (2001) found that, even after allowance for antisocial personality, severity of alcohol abuse, and other potential influences, frequency of illicit drug use still contributed to risk for intimate partner violence perpetrated by alcoholic men. Moore and Stuart (2004) also found that, after allowance for the potential influence of alcohol abuse, illicit drug use was associated with both perpetration and exposure to intimate partner violence among men arrested during a domestic incident, and Stuart et al. (2006, 2008) showed that illicit drug use may mediate the relationship between alcohol abuse and physical abuse of an intimate partner by men and women arrested for domestic violence. Finally, Fals-Stewart, Golden, and Schumacher (2003) noted that, among men entering drug abuse treatment, intimate partner violence directed at women was 3 times more likely to occur on days the men used cocaine when compared with days they abstained after allowance for the potential influence of both antisocial personality disturbance and general relationship distress.

Despite the empirical links between substance abuse and domestic violence, questions remain about the relationship between opioid abuse and intimate partner violence. Laboratory investigations done with healthy volunteers suggest that opioids may provoke

aggressive behavior (see, e.g., Berman, Taylor, & Marged, 1993), but laboratory investigations done with opioid-dependent individuals are more equivocal. For example, Clair et al. (2009) recently showed that opioid-dependent individuals demonstrated cognitive processing associated with less risk for aggressive behavior within a laboratory paradigm, but Gerra et al. (2001, 2004) found that chronic exposure to opioids was associated with more aggressive behavior within a laboratory procedure.

Moreover, clinical investigations do not clearly document a relationship between opioid dependence and risk for intimate partner violence. For example, Chermack et al. (2001) found that, unlike frequency of alcohol and cocaine use, frequency of opioid use was not associated with intimate partner violence among men and women enrolled in substance abuse treatment. Similarly, Fals-Stewart et al. (2003) found that the likelihood of physical aggression by men entering drug abuse treatment was not significantly higher on days the men used opioids. However, in one of the few surveys of men receiving methadone maintenance treatment, El-Bassel, Gilbert, Wu, Chang, and Fontdevila (2007) noted high rates of intimate partner violence, and they showed that continued use of opioids by either the men alone or both partners seemed to be associated with risk for more serious forms of intimate partner violence.

Coparenting Relationships and Intimate Partner Violence

When compared with couples without children, couples who share responsibility for the care of a minor child may be at greater risk for intimate partner violence (see, e.g., McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). Moreover, children whose parents engage in intimate partner violence are at risk for exposure to hostile-coercive parenting and physical abuse by both fathers and mothers. They are also at risk for emotional-behavioral disturbance. For example, Fox and Benson (2004) found that men prone to aggressive behavior with an intimate partner were also more likely to demonstrate hostile-coercive parenting behavior. Taylor, Guterman, Lee, and Rathouz (2009) reported that mothers who were the target of intimate partner violence were more likely to confirm hostile and neglectful parenting behavior. Within a growing literature on the psychosocial adjustment of children exposed to intimate partner violence, McDonald, Jouriles, Tart, and Minze (2009) recently showed that, among mothers with a school-age child seeking refuge from domestic violence, frequency of physical aggression directed at mother by father correlated positively with frequency of physical aggression directed at father by mother and frequency of physical aggression directed at the child by both partners. Frequency of parent-child aggression, more so than frequency of intimate partner aggression, correlated with more internalizing and externalizing pathology in the child.

This Study

Although empirical links between substance abuse and intimate partner violence have been relatively well established, questions remain about differential risk for intimate partner violence when men are abusing opioids, particularly when men are fathers. Consequently, this study was designed to examine the lifetime prevalence and recent frequency of intimate partner violence involving (a) psychological aggression, (b) physical aggression, (c) sexual coercion, and (d) physical injury within the coparenting relationships of opioid-dependent men. When compared with fathers living in the same community with no history of alcohol or drug abuse, opioid-dependent fathers were expected to confirm (a) greater prevalence of intimate partner violence directed at the mother of their youngest biological child over the course of the relationship and (b) more frequent intimate partner violence directed at the mother of that child during the previous year. Given accumulating evidence of reciprocal aggression within sexual partnerships (see, e.g., Whitaker et al., 2007), the opioid-dependent fathers were also expected to confirm (a) greater prevalence of intimate partner violence

directed at them by the mother of their youngest biological child over the course of the relationship and (b) more frequent intimate partner violence directed at them by the mother of that child during the previous year.

Method

Participants

The sample for this investigation was 224 men who enrolled in a comparative study of fathering by drug-abusing men (McMahon, Winkel, & Rounsaville, 2008). Within this sample, 106 of the men were opioid-dependent fathers enrolled in methadone maintenance treatment. The remaining 118 men were fathers with no history of alcohol or drug abuse and who lived in the same community as the opioid-dependent fathers. The demographic characteristics of the sample are summarized in Table 1. Because the father-mother-child triad examined in the broader study was father, mother, and youngest biological child, information about the characteristics of the youngest biological child and the men's relationship with the mother of that child are included.

When the demographic characteristics of the two groups were compared, the opioid-dependent men were somewhat older than the other men, $\chi^2(1, N = 224) = 6.80$, $p = .009$, and they had less formal education, $\chi^2(1, N = 224) = 34.01$, $p < .0001$, but there was no significant difference in the distribution of ethnic heritage within the two groups. Although the differences were relatively small, the opioid-dependent men had more biological children with more women, $\chi^2(1, N = 224) = 13.84$, $p = .0002$ and $\chi^2(1, N = 224) = 8.72$, $p = .003$. Because the opioid-dependent fathers were somewhat older, their youngest biological child was also somewhat older, $\chi^2(1, N = 224) = 5.39$, $p = .02$, but there was no significant difference in the gender of that child. The opioid-dependent men were also less likely to have ever been legally married to the mother of their youngest biological child, $\chi^2(1, N = 224) = 18.31$, $p < .0001$, and they were less likely to still be involved in an ongoing sexual relationship with the mother of that child, $\chi^2 (1, N = 224) = 27.95$, $p < .0001$. The opioid-dependent men had been enrolled in methadone maintenance treatment for an average of approximately 20 months.

Procedure

To recruit potentially eligible men, a written announcement seeking biological fathers for a study of father-child relationships was circulated throughout an urban community in south central Connecticut. To facilitate recruitment of the opioid-dependent fathers, the announcement was distributed within the four methadone treatment programs serving the community. To facilitate recruitment of fathers living in the same community with no history of alcohol or drug abuse, the announcement was distributed within (a) social service agencies, (b) community centers, (c) primary care clinics, (d) employment centers, (e) places of worship, and (f) selected work sites.

To be eligible for enrollment, potential subjects had to be the biological father of at least one child. Men in the opioid-dependent group had to be receiving methadone maintenance treatment, and men in the comparison group had to confirm that they had no history of a substance use disorder since the birth of their first child. Once determined to be eligible, fathers provided informed consent, eligibility was verified, and they completed two structured interviews and a battery of self-report measures during a single session conducted by a research assistant. All participants received $30 for completing the study. The research protocol was approved by the Human Investigations Committee for the Yale University School of Medicine.

Measures

Substance abuse—The Substance Use Disorders module of the Structured Clinical Interview for DSM-IV (First, Spitzer, Gibbon, & Williams, 2001) was used to determine the substance use history of each father. This instrument documents current and lifetime diagnosis of a substance use disorder. Use of alcohol, cannabis, cocaine, opioids, sedatives, amphetamines, hallucinogens, and other drugs is systematically reviewed. For this study, the structured interview was modified to carefully document substance use occurring before and after the birth of each participant's first child, and the structured interview was used to (a) verify opioid dependence in the drug-abusing fathers, (b) characterize the nature of other substance use in the drug-abusing fathers, and (c) verify the absence of drug or alcohol abuse in the other fathers.

Intimate partner violence—The Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) was used to document the lifetime prevalence and recent frequency of intimate partner violence. The CTS2 is a 78-item, self-report measure that asks respondents to rate the frequency of incidents representing (a) psychological aggression, (b) physical aggression, (c) sexual coercion, and (d) physical injury that have occurred in the context of their relationship with a current or former sexual partner during the previous year. Respondents rate the frequency of incidents along a 7-point scale ranging from 0 (n*ever)* to 6 (*more than 20 times*). If a specific behavior or consequence did not occur during the previous year, the respondent documents whether it ever occurred over the course of the relationship. Respondents are asked about both (a) their behavior and consequences for their partner and (b) the behavior of their partner and consequences for themselves. Psychometric data have shown that the instrument has good reliability and validity (see, e.g., O'Leary & Williams, 2006; Simpson & Christensen, 2005; Straus et al., 1996).

Each father was asked to rate the lifetime prevalence and recent frequency of intimate partner violence in his relationship with the mother of their youngest biological child. Following suggestions outlined by Straus et al. (1996), categorical ratings of lifetime occurrence were used to calculate seven subscale scores representing the prevalence of (a) severe psychological aggression, (b) minor and severe physical aggression, (c) minor and severe sexual coercion, and (d) minor and severe physical injury over the life of the relationship. Similarly, mid-points of the ordinal ratings were used to calculate seven subscale scores representing the frequency of (a) severe psychological aggression, (b) minor and severe physical aggression, (c) minor and severe sexual coercion, and (d) minor and severe physical injury during the previous year. Complementary sets of subscale scores representing the prevalence and frequency of (a) aggressive behavior directed at mother by father with injury to mother and (b) aggressive behavior directed at father by mother with injury to father were calculated using information provided by the fathers.

Data Analysis

Generalized linear modeling techniques (for a review, see Wu, 2005) were used to test for statistically significant between-group differences associated with drug abuse status. In each of the generalized linear analyses, dichotomous coding of drug abuse status representing a history of opioid dependence versus no history of drug or alcohol abuse was entered into the statistical model to represent between-group differences in the prevalence and frequency of intimate partner violence. To control for the potential influence of demographic characteristics, age and ethnic heritage of the father were included as covariates. Because both prevalence and frequency scores were positively skewed representing relatively limited prevalence and relatively low frequency throughout the sample, the general linear analyses were done with specification of a negative binomial distribution and a log link function (for a discussion, see Wu, 2005).

Considerations outlined by Jaccard and Guilamo-Ramos (2002) were used to balance the Type I versus Type II error rate across four clusters of statistical analyses done to document differences in the prevalence and frequency of (a) aggressive behavior directed at mother by father with injury to mother and (b) aggressive behavior directed at father by mother with injury to father. For each cluster of seven variables, the family-wise error rate was held constant at no more than .05 using the modified Bonferroni procedure developed by Holm (for description, see Jaccard & Guilamo-Ramos, 2002), and parameter estimates derived from the generalized linear analyses were used to obtain an estimate of standardized effect size *(d*) (Cohen, 1988).

Results

Intimate Partner Violence Directed at Mother by Father

Results of the generalized linear analyses performed to test for between-group differences in the lifetime prevalence and recent frequency of intimate partner violence directed at mother by father are summarized in Table 2. As indicated, the opioid-dependent fathers reported significantly greater prevalence of (a) severe psychological aggression, (b) minor physical aggression, (c) severe physical aggression, and (d) severe sexual coercion directed at the mother of their youngest biological child with significantly greater prevalence of both minor and severe injury to mother over the course of the relationship. Contrary to expectations, there was no significant difference in the prevalence of minor sexual coercion. The prevalence of aggressive behavior by father and injury to mother was generally limited, and effect sizes for statistically significant differences would, by criteria outlined by Cohen (1988), be characterized as small to medium.

As noted in Table 2, the opioid-dependent fathers also reported significantly more frequent (a) severe psychological aggression, (b) minor physical aggression, and (c) severe sexual coercion directed at the mother of their youngest biological child with significantly more frequent minor and severe physical injury to mother during the previous year. Contrary to expectations, the opioid-dependent fathers also reported significantly less frequent minor sexual coercion. Post hoc decomposition of that finding suggested that the inconsistency was accounted for largely by more frequent demands for sexual relations without the use of a condom and more frequent demands for oral or anal sex without the use of force within the comparison group but more frequent use of threats and physical force to coerce sexual relations within the opioid-dependent group. As indicated in Table 2, the frequency of aggressive behavior by father and injury to mother was, with the exception of minor sexual coercion within the comparison group, relatively low, and effect sizes for the statistically significant differences would be characterized as small to medium.

Intimate Partner Violence Directed at Father by Mother

Results of the generalized linear analyses performed to test for between-group differences in the lifetime prevalence and recent frequency of intimate partner violence directed at father by mother are summarized in Table 3. As indicated, the opioid-dependent fathers reported significantly greater prevalence of minor physical aggression and severe sexual coercion directed at them by the mother of their youngest biological child over the course of the relationship, with significantly greater prevalence of both minor and severe injury to father. Contrary to expectations, there was no significant difference in the prevalence of (a) severe psychological aggression, (b) severe physical aggression, and (c) minor sexual coercion directed at the fathers. The prevalence of aggressive behavior by mother and injury to father was, as shown in Table 3, relatively limited, and effect sizes for statistically significant differences would, by criteria outlined by Cohen (1988), be characterized as medium to large.

As noted in Table 3, the opioid-dependent fathers also reported significantly more frequent severe sexual coercion directed at them by the mother of their youngest biological child during the previous year. Paradoxically, they also reported significantly less frequent minor sexual coercion directed at them. Post hoc decomposition of that finding suggested that the inconsistency was again accounted for largely by more frequent demands for sexual relations without the use of a condom and more frequent demands for oral or anal sex without the use of force within the comparison group but more frequent use of threats and physical force to coerce sexual relations within the opioid-dependent group. Contrary to expectations, there was no significant difference in the frequency of any other dimension of intimate partner violence during the previous year. As indicated in Table 3, the frequency of severe sexual coercion was limited within the opioid-dependent group, but minor sexual coercion within the comparison group was much more common. Effect sizes for the statistically significant differences would be characterized as medium to large.

Discussion

As expected, the results of this study document greater prevalence and greater recent frequency of intimate partner violence within the coparenting relationships of opioid-dependent men. Despite other research suggesting there may not be an association between opioid abuse and intimate partner violence (for a review, see Moore et al., 2008), the data presented here suggest that physical, sexual, and more serious psychological aggression directed at mother by father occurs more frequently and with greater risk of physical injury to mother within the coparenting relationships of opioid-dependent men. The data also suggest that physical, sexual, and more serious psychological aggression directed at father by mother also occurs more frequently with greater risk of physical injury to father. When examined within the existing literature on substance abuse and intimate partner violence (for reviews, see Foran & O'Leary, 2008; Moore et al., 2008), the results highlight some important exceptions to that general pattern, and they highlight important issues for consideration by both clinicians and researchers interested in the development of clinical intervention designed to address the family problems of men entering drug abuse treatment.

Drug Abuse and Intimate Partner Violence

Generally, the results of this study are consistent with the results of other research that has documented differential risk for physical, sexual, and psychological aggression when substance-abusing men have been compared to men without any history of alcohol or drug abuse (for reviews, see Foran & O'Leary, 2008; Moore et al., 2008). Because there have been few, if any, investigations that have compared opioid-dependent men with community controls (for a review, see Moore et al., 2008), this study extends these finding to the specific population of substance-abusing men. Although the relationship has proven equivocal in other research, these findings suggest that opioid dependence is associated with risk for intimate partner violence. The small to moderate effect sizes noted here are comparable with those generated in systematic reviews of the relationship between other forms of substance abuse and intimate partner violence (see, e.g., Foran & O'Leary, 2008; Moore et al., 2008), and the results are consistent with the work of El-Bassel et al. (2007) who noted high rates of intimate partner violence within a larger sample of men receiving methadone maintenance treatment.

Research (e.g., Taylor et al., 2009) done with other high-risk populations suggests that risk for intimate partner violence may be highest when couples are involved in an ongoing sexual relationship and actually living together. Given that the opioid-dependent fathers were less likely to still be involved in a sexual relationship with the mother of their youngest child, it was surprising that they still reported more frequent intimate partner violence during the previous year with more frequent physical injury to mother. Although comparison of

lifetime prevalence and recent frequency suggests that there may have been some attenuation of risk as the sexual partnerships of the opioid-dependent men deteriorated over time, the finding raises important questions about ways risk for aggressive behavior within coparenting relationships may occur within clinical populations somewhat independent of ongoing sexual relationships. Generally, the results are consistent with other research showing that women often continue to be the target of intimate partner violence by men after the sexual relationship ends (see, e.g., Tjaden & Thoennes, 2000). The fact that couples share responsibility for the care of a child in the context of ongoing drug abuse by fathers may exacerbate that risk.

The findings concerning differential risk for more versus less severe forms of sexual coercion were not expected. Paradoxically, more severe forms of sexual coercion were more prevalent and more frequent within the opioid-dependent group, but there was no significant difference in the prevalence of less severe forms of sexual coercion and less severe forms of sexual coercion actually occurred more frequently during the previous year within the comparison group. Consistent with this, other research suggests that less severe forms of sexual coercion by both men and women are relatively common within ongoing sexual relationships, particularly when the couple is living together (see, e.g., Ramisetty-Mikler, Caetano, & McGrath, 2007). As noted above, men in the comparison group were much more likely to still be involved in an ongoing sexual relationship with the mother of their youngest biological child. Consequently, when couples have an ongoing sexual relationship that is not colored by alcohol or drug abuse, both partners may actually make more frequent demands for certain forms of sexual activity, and they may, realistically or unrealistically, be less concerned about the use of condoms to protect against both unwanted pregnancy and sexually transmitted disease.

Although the opioid-dependent men were just as likely to have lived with the mother of their youngest child at some point in the past (McMahon et al, 2008), they were, as noted, less likely to be involved in an ongoing sexual relationship with the mother of their youngest child. Consequently, although risk for more severe sexual coercion by either partner may be constant or actually escalate over the life of the coparenting relationship within this clinical population, risk for less severe sexual coercion by either partner may actually decline as sexual partnerships deteriorate. Again, there is some evidence (e.g., Tjaden & Thoennes, 2000) that risk for sexual coercion by men may escalate as sexual partnerships end. Alternatively, couples within this clinical population who remain together may, for some reason, be prone to more severe forms of reciprocal sexual aggression.

Although the reciprocal pattern of severe sexual coercion is at odds with popular stereotypes, the presence of significantly more severe sexual coercion within the opioid-dependent group is consistent with a rapidly expanding literature on physical and psychological coercion of sexual relations by women (see, e.g., Krahe, Scheinberger-Olwig, & Bieneck, 2003; Krahe, Waizenhofer, & Moller, 2003; Schatzel-Murphy, Harris, Knight, & Milburn, in press). Severe sexual coercion of women by men may be more prevalent within this clinical population, but there may also be clinically meaningful risk for severe sexual coercion of men by women (see, e.g., Struckman-Johnson & Struckman-Johnson, 1994). Research (e.g., Hallinan et al., 2008) indicating that chronic use of opioids affects the sexual functioning of men raises questions about ways the psychophysiological effects of opioids might influence negotiation of sexual relations within this clinical population.

The results also suggest that risk for intimate partner violence continues after men are engaged in methadone-maintenance treatment. Given that the opioid-dependent men had been enrolled in treatment for an average of more than 18 months, the persistence of intimate partner violence after an average of approximately 6 months of treatment is

somewhat surprising. Although it is impossible to document clearly the potential influence of drug abuse treatment without longitudinal data, the presence of ongoing intimate partner violence is generally at odds with previous findings that risk may be attenuated by continued enrollment in substance abuse treatment (O'Farrell et al., 2003, 2004). The findings are, however, very consistent with the work of El-Bassel et al. (2007) who noted high rates of intimate partner violence during the previous year within a larger sample of men enrolled in methadone maintenance.

Implications for Practice

Above all, the results of this study suggest that family-oriented intervention for opioid-dependent men needs to address risk for intimate partner violence within coparenting relationships. At this time, there is accumulating evidence that fathers, mothers, and children can benefit from family-oriented treatment designed to minimize the harm associated with paternal substance abuse (see, e.g., Kelley & Fals-Stewart, 2002, 2007, 2008). Given the results of this study, clinicians pursuing family-oriented intervention with opioid-dependent men need to do so acknowledging that, even when men are not living with a current or former sexual partner, there is substantial risk for physical, sexual, and psychological aggression with the potential for physical injury, particularly when men share responsibility for the care of a child. Although risk for aggressive behavior directed at mothers by fathers will undoubtedly be more substantial, clinicians must acknowledge that there is also risk for aggressive behavior directed at fathers by mothers.

Despite documentation of high rates of intimate partner violence within populations of substance-abusing men, Schumacher, Fals-Stewart, and Leonard (2003) found that substance abuse counselors rarely refer men with a recent history of intimate partner violence to programs that offer specialized treatment for domestic violence. Even when referred, substance-abusing men rarely seek concurrent treatment for intimate partner violence (Schumacher et al., 2003). Moreover, if men seek specialized treatment, traditional interventions for intimate partner violence have not proven very effective, which raises questions about the need for different, more innovative approaches (for a review, see Babcock, Green, & Robie, 2004).

As it has become clear that clients entering substance abuse treatment rarely seek collateral treatment for family problems such as intimate partner violence, there has been growing support for the integration of empirically validated, family-oriented intervention into substance abuse treatment. More than anything else, behavioral couples therapy has proven to be a very effective conjoint treatment for alcohol and drug abuse problems as well as to improve substance use and marital outcomes, including the frequency of intimate partner violence (see, e.g., Fals-Stewart & O'Farrell, 2003; O'Farrell et al., 2003, 2004). Acknowledging the concurrent nature of substance abuse and intimate partner violence, Easton et al. (2007) recently described the feasibility and potential efficacy of a 12-week psychosocial intervention for alcohol-abusing men arrested for domestic violence that holds promise for use with men regardless of whether the couple continues their relationship.

Acknowledging that marital conflict may be an important correlate of risk for emotional-behavior disturbance in children living with a substance-abusing father (see, e.g., Fals-Stewart, Kelley, Cooke, & Golden, 2002), Lam, Fals-Stewart, & Kelley (2008) recently showed that behavioral couples therapy and parent training can be combined to address risk for emotional-behavioral disturbance in children living with an alcohol-abusing father and his sexual partner. Similarly, McMahon (2009) recently reported the results of a pilot study documenting the promise of a parent intervention being developed for delivery to fathers enrolled in methadone maintenance treatment regardless of whether they live with their children. Although these clinical interventions might be used to improve the family

relationships of substance-abusing men, there is also need for alternatives when clinicians must respond to more serious forms of physical and sexual abuse perpetrated by substance-abusing men where there is immediate risk for serious physical or psychological harm to mothers and children. McMahon and Rounsaville (2002) have suggested that, when clinical intervention to improve relationships between substance-abusing fathers, coparents, and children is not feasible, there will still be need for creative interventions designed to address the needs of fathers, mothers, and children.

Implications for Research

As clinicians and researchers pursue family-oriented intervention designed to minimize the harm associated with intimate partner violence occurring in the context of chronic substance abuse, there will undoubtedly be need for a better understanding of family dynamics that contribute to intimate partner violence. Moore et al. (2008) suggested that research on the nature of intimate partner violence occurring in the context of ongoing drug abuse needs to be grounded in a biopsychosocial model that acknowledges the potential influence of both more distal and more proximal influences, including the causal influence of specific drugs of abuse. The research design used in this study allows for documentation of global risk for intimate partner violence within this clinical population, but it does not allow for those differences to be attributed directly to the opioid dependence. Consequently, potential influences contributing directly and indirectly to between and within-groups differences in risk for intimate partner violence within this clinical population need to be untangled. Other work (see, e.g., Murphy et al., 2001) suggests that childhood trauma, socioeconomic stress, personality disturbance, misuse of alcohol, and misuse of other drugs may be important influences.

Limitations

Although the results of this study expand understanding of intimate partner violence within the coparenting relationships of men enrolled in methadone maintenance treatment, aspects of the research design limit interpretation of the findings. The most obvious limitation is the absence of complementary data from the mother of each father's youngest biological child. This limitation is important because there is usually only moderate agreement in collateral reports of intimate partner violence. When compared with their sexual partners, men and women, including men and women affected by substance abuse, tend to report less intimate partner violence directed at their partner by themselves and more intimate partner violence directed at them by their partner (see, e.g., O'Leary & Williams, 2006; Simpson & Christensen, 2005). Consequently, although it is important to obtain the perspective of men on questions about their fathering, these estimates may represent lower-bound estimates for aggressive behavior directed at mother by father and upper-bound estimates for aggressive behavior directed at father by mother.

The relatively focused, self-selected nature of the sample also limits interpretation of the findings. Although the demographic characteristics of the drug-abusing group compare with those noted in a representative sampling of fathers entering the local system of care (McMahon, Winkel, Luthar, & Rounsaville, 2005), the fathers who chose to participate in this study may not accurately represent the local population of opioid-dependent fathers. Similarly, although Cabral et al. (2003) showed that community-based approaches to the recruitment of ethnic minority participants living in urban setting may produce the most representative samples, the men who chose to participate in this study may not accurately represent the local population of fathers with no history of drug and alcohol abuse. Given other data that suggest intimate partner violence may be more prevalent among sexual partners who share responsibility for a child (McDonald et al., 2006), the results of this study may also over-estimate risk for intimate partner violence among opioid-dependent

men who are not fathers. The results also cannot be extended to opioid-dependent fathers who are not currently enrolled in methadone maintenance treatment, and they cannot be extended to populations of fathers abusing other drugs.

Finally, the relatively conservative balancing of risk for a Type I versus Type II error limited the statistical power to detect relatively small, potentially meaningful differences in intimate partner violence. The most obvious examples are the relatively small differences in the recent frequency of severe physical aggression directed at mothers by fathers and lifetime prevalence of severe physical aggression directed at fathers by mothers compared with the average effect sizes for domestic violence associated with drug use reported in the systematic review done by Moore et al. (2008). However, these differences did not prove statistically significant despite the fact that they probably accounted for the statistically significant differences in recent frequency of severe injury to mother and lifetime prevalence of severe injury to father.

Conclusion

Despite ongoing interest in the role fathers play in the lives of mothers and children, there is surprisingly little information about the nature of coparenting occurring in the context of chronic drug abuse. The results of this comparative study suggest that reciprocal intimate partner violence is relatively common within the coparenting relationships of opioid-dependent men. They also highlight the need for better understanding of the causes and consequences of intimate partner violence within this population of fathers to inform the continued development of clinical intervention designed to minimize the harm associated with paternal drug abuse

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Table 1

Demographic Characteristics of the Sample

	Opioid-Dependent Group		Comparison Group	
Construct Dimension	***M***	**(*SD*)**	***M***	**(*SD*)**
Age	41.68	(7.10)	39.39	(5.61)
Ethnic heritage				
Hispanic	0.15	(0.36)	0.14	(0.35)
African-American	0.29	(0.46)	0.33	(0.47)
European	0.56	(0.50)	0.53	(0.50)
Years of education	11.92	(1.71)	13.37	(1.87)
Currently employed	0.18	(0.39)	0.88	(0.32)
Number of biological children	2.32	(1.44)	1.75	(0.89)
Number of coparenting relationships	1.58	(0.88)	1.29	(0.60)
Age of target child	10.81	(6.80)	8.41	(6.14)
Male gender for target child	0.52	(0.50)	0.55	(0.50)
Ever legally married to mother of target child	0.42	(0.50)	0.70	(0.46)
Current sexual relationship with mother of target child	0.27	(0.45)	0.64	(0.48)

Note. For dichotomous variables, *M* represents the proportion of participants confirming that characteristic. The target child for the study was each father's youngest biological child.

Table 2

Results of Generalized Linear Analyses for Dimensions of Intimate Partner Violence Directed at Mother by Father

	Opioid-Dependent Group			Comparison Group				
Construct Dimension	***M***	**(*SD*)**	**Range**	***M***	**(*SD*)**	**Range**	**Cohen's *d***	χ^2
Lifetime prevalence								
Severe psychological aggression	1.42	(1.39)	0–4	0.66	(1.01)	0–4	0.61	19.55*
Minor physical aggression	1.83	(1.66)	0–5	0.93	(1.32)	0–5	0.50	13.21*
Severe physical aggression	0.81	(1.41)	0–7	0.36	(1.00)	0–6	0.47	11.68*
Minor sexual coercion	0.71	(0.90)	0–3	0.65	(0.79)	0–3	0.01	0.00
Severe sexual coercion	0.21	(0.63)	0–4	0.08	(0.42)	0–4	0.30	5.61*
Minor injury to mother	0.51	(0.76)	0–2	0.17	(0.51)	0–2	0.46	12.01*
Severe injury to mother	0.42	(0.92)	0–4	0.12	(0.49)	0–4	0.53	15.19*
Frequency over the past year								
Severe psychological aggression	1.74	(3.68)	0–19	0.81	(1.92)	0–12	0.40	8.06*
Minor physical aggression	2.92	(6.29)	0–33	1.10	(2.88)	0–19	0.43	9.13*
Severe physical aggression	0.74	(2.69)	0–20	0.37	(1.80)	0–16	0.23	2.49
Minor sexual coercion	2.20	(6.70)	0–30	5.96	(10.64)	0–50	−0.51	12.23*
Severe sexual coercion	0.36	(1.76)	0–15	0.19	(1.33)	0–14	0.32	5.30*
Minor injury to mother	0.53	(1.61)	0–10	0.20	(0.98)	0–8	0.46	11.14*
Severe injury to mother	0.36	(1.47)	0–11	0.13	(0.96)	0–10	0.59	17.17*

Note. Values represent descriptive statistics for dimensions of intimate partner violence in the fathers' relationship with the mother of their youngest biological child, as reported by the father. Scores representing lifetime prevalence and frequency over the past year for each type of intimate partner violence were computed following guidelines outlined by Straus et al. (1996). x^2 represent tests for significant between-group differences in the different dimensions of intimate partner violence done within a generalized linear analysis with specification of a negative binomial distribution and log link function. Parameter estimates (*SE*) representing between-group differences after allowance for age and ethnic heritage of father were used to calculate Cohen's *d*.

Asterisks (*) denote statistically significant between-group differences after application of the modified Bonferroni procedure developed by Holm to hold the Type I error rate at no more than .05 for each cluster of dependent variables.

Table 3

Results of Generalized Linear Analyses for Dimensions of Intimate Partner Violence Directed at Father by Mother

	Opioid-Dependent Group			Comparison Group				
Construct Dimension	***M***	**(*SD*)**	**Range**	***M***	**(*SD*)**	**Range**	**Cohen's *d***	**χ^2**
Lifetime prevalence								
Severe psychological aggression	1.34	(1.33)	0–4	0.96	(1.03)	0–4	0.25	3.24
Minor physical aggression	2.02	(1.90)	0–5	1.27	(1.36)	0–5	0.40	8.22*
Severe physical aggression	0.86	(1.52)	0–7	0.48	(1.06)	0–6	0.31	4.93
Minor sexual coercion	0.64	(0.85)	0–3	0.58	(0.76)	0–3	0.02	0.03
Severe sexual coercion	0.28	(0.74)	0–4	0.04	(0.38)	0–4	0.83	40.04*
Minor injury to father	0.56	(0.78)	0–2	0.22	(0.56)	0–2	0.44	10.71*
Severe injury to father	0.37	(0.84)	0–4	0.08	(0.42)	0–4	0.54	17.50*
Frequency over the past year								
Severe psychological aggression	2.88	(6.80)	0–41	1.87	(6.42)	0–66	0.21	2.28
Minor physical aggression	4.16	(8.80)	0–39	2.17	(7.48)	0–63	0.33	5.84
Severe physical aggression	0.93	(2.96)	0–19	1.01	(5.14)	0–52	0.20	2.15
Minor sexual coercion	2.08	(6.18)	0–31	6.16	(10.92)	0–50	−0.52	13.67*
Severe sexual coercion	0.50	(2.12)	0–15	0.13	(1.29)	0–14	0.76	28.54*
Minor injury to father	0.80	(2.01)	0–10	0.54	(2.90)	0–29	0.29	4.40
Severe injury to father	0.72	(3.16)	0–25	0.35	(2.50)	0–25	0.26	3.59

Note. Values represent descriptive statistics for dimensions of intimate partner violence in the fathers' relationship with the mother of their youngest biological child as reported by the father. Scores representing lifetime prevalence and frequency over the past year for each type of intimate partner violence were computed following guidelines outlined by Straus et al. (1996). X^2 represent tests for significant between-group differences in the different dimensions of intimate partner violence done within a generalized linear analysis with specification of a negative binomial distribution and log link function. Parameter estimates (*SE*) representing between-group differences after allowance for age and ethnic heritage of father were used to calculate Cohen's *d*.

Asterisks (*) denote statistically significant between-group differences after application of the modified Bonferroni procedure developed by Holm to hold the Type I error rate at no more than .05 for each cluster of dependent variables.