



# The case for examining and treating the combined effects of parental drug use and interparental violence on children in their homes

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## ABSTRACT

This review examines what have been, to this point, generally two divergent lines of research: (a) effects of parental drug abuse on children, and (b) effects of children's exposure to interparental violence. A small, but growing body of literature has documented the robust relationship between drug use and intimate partner violence. Despite awareness of the interrelationship, little attention has been paid to the combined effect of these deleterious parent behaviors on children in these homes. Thus, we argue for the need to examine the developmental impact of these behaviors (both individually and combined) on children in these homes and for treatment development to reflect how each of these parent behaviors may affect children of substance abusers.

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## Contents

1. Introduction . . . . .	76
2. Children of substance abusers (COSAs): overview of empirical findings . . . . .	77
3. Children's exposure to intimate partner violence . . . . .	77
4. The relationship between parental drug use and IPV . . . . .	77
5. The effects of interparental violence on children's development . . . . .	78
6. Effects of parental drug use and interparental violence on children in their homes: theoretical perspectives . . . . .	78
6.1. Social learning theory and theories of social development . . . . .	78
7. Parental drug use and IPV: effects on youth in these homes . . . . .	79
8. The argument for examining IPV and parental drug use . . . . .	79
9. Research issues . . . . .	80
10. New perspectives for clinical intervention . . . . .	80
Acknowledgements . . . . .	80
References . . . . .	80

## 1. Introduction

In 2006, 22.6 million individuals in the U.S. were estimated to abuse or be dependent on drugs or alcohol (Substance Abuse and Mental Health Services and Office of Applied Studies [SAMHSA], 2007). According to the 2007 National Survey on Drug Use and Health, nearly 20 million Americans aged 12 and older had used an illicit drug in the month prior to the survey interview (SAMHSA, 2008). Males are

more likely than females to be current illicit drug users (10.4 versus 5.8%, respectively; SAMHSA, 2008).

Although estimates vary widely from study to study, it is clear that many illegal drug users reside with children. Among clinical samples, between 44% and 85% of parents who abuse substances have been found to retain custody of their children (Grella, Hser, & Huang, 2006; Hohman, Shillington, & Baxter, 2003; Tyler, Howard, Espinosa, & Doakes, 1997; Wilke, Kamata, & Cash, 2005), whereas 37% to 57% of community samples of drug-using mothers and fathers have minor children living with them (Doane, Kelley, Neff, & Cooke, 2008; Lam, Wechsberg, & Zule, 2004; Nair, Black, Schuler, Keane, Snow, Rigney, &

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Magder, 1997; Pilowsky, Lyles, Cross, Celentano, Nelson, & Vlahov, 2001). In the U.S. alone, more than 8.3 million children (11%) are estimated to live with a parent who abuses or is dependent on alcohol or other substances (U.S. Department of Health and Human Services, 2005).

Although children who reside with an alcohol- or drug-abusing parent experience greater risk for negative outcomes such as aggression (Osborne & Berger, 2009) and alcohol and drug use and abuse (e.g., Biederman, Faraone, Monuteaux, & Feighner, 2000), as argued by Hogan (1998), compared to alcohol abusers, families in which a parent abuses illegal drugs, particularly opiates and cocaine (i.e., 'hard drugs'), often experience a distinct set of challenges to healthy development. For instance, as compared to alcohol abusers, drug users are more likely to have lower socioeconomic status (e.g., economic disadvantage, living in substandard housing). Related to this problem, adult drug users are more likely to live in large urban areas (defined as 1 million or more; *Substance Abuse and Mental Health Services Administration, 2004*). Disadvantaged urban areas have neighborhood risk factors (often referred to as 'concentrate effects') that increase likelihood of illegal activity (Sampson, 1987). Moreover, criminal activities associated with drug use place the parent at risk for arrest and imprisonment. As might be expected, in comparison to alcohol-dependent patients, individuals who primarily abuse drugs other than alcohol are more impaired across a range of psychological and social aspects of functioning (Miller, 1993). Similarly, Cooke, Kelley, Fals-Stewart and Golden (2004) found that, as compared to fathers in which men met criteria for alcohol abuse, drug-abusing fathers had significantly higher subscale scores (indicating more problems) on five of the seven Addiction Severity Index subscales (i.e., Drug, Legal, Medical, Employment, and Family). Because children whose parents abuse substances other than alcohol may confront a more complex and potentially detrimental set of obstacles to healthy development, the focus of this paper is children of substance abusers (COSAs).

## 2. Children of substance abusers (COSAs): overview of empirical findings

COSAs are at greater risk for a myriad of problems, including anxiety and depression (Billick, Gotzis, & Burgert, 1999; Fals-Stewart, Kelley, Fincham, Golden, & Logsdon, 2004; Kelley & Fals-Stewart, 2008; Osborne & Berger, 2009; Stanger, Higgins, Bickel, Elk, Grabowski, Schmitz, Amass, Kirby, & Seracini, 1999), poor self-concept (Drucker & Greco-Vigorito, 2002), aggression (Malo & Tremblay, 1997; Osborne & Berger, 2009), externalizing disorders (Catalano, Haggerty, Fleming, Brewer, & Gaaney, 2002; Kelley & Fals-Stewart, 2004, 2008; Schroeder, Kelley, & Fals-Stewart, 2006), and academic difficulties (e.g., Blanchard, Sexton, & Morgenstern, 2005; Kolar, Brown, Haertzen, & Michaelson, 1994). History of family substance abuse is also linked to offspring experimentation with or abuse of alcohol and drugs (Biederman et al., 2000; Braitman, Kelley, Ladage, Schroeder, Gumienny, Morrow, & Kklostermann, 2009; Caetano, Field, & Scott, 2003; Keller, Catalano, Haggerty, & Fleming, 2002; King, Vidourek, & Wagner, 2003).

A series of investigations have also demonstrated that COSAs are more likely to be diagnosed with a current or lifetime psychiatric disorder. In a sample of cocaine- and opiate-addicted mothers, Luthar, Cushing, Merikangas and Rounsaville (1998) found nearly 66% of COSAs had one or more major psychiatric diagnoses by age 12. Studies that have compared children of drug abusers to children of alcohol abusers or non-substance abusers have found children of drug abusers are more likely to have at least once lifetime psychopathological condition relative to children in other conditions (Kelley & Fals-Stewart, 2004; Wilens, Biederman, & Bredin, 2002).

A limitation of much of the previous research on COSAs is the tendency to examine differences between COSAs as compared non-COSAs in order to make general statements about COSAs as a whole.

Undoubtedly, individual, parent, family, and contextual factors contribute to variability in children's developmental outcomes. At this time, however, our understanding of factors that interact with or mediate the effects of parental drug use is relatively limited.

Although many factors may contribute to poor child outcomes in this population, one of the most common and potentially devastating may be interparental violence. Thus, our review examines what has been, to this point, two somewhat divergent lines of research: (a) the effects of parental drug abuse on children, (b) the effects of children's exposure to interparental violence, and (c) the small, but growing body of empirical literature that has documented the strong relationship between parental drug use and intimate partner violence and the combination of these effects on child outcomes.

## 3. Children's exposure to intimate partner violence

Intimate partner violence (IPV) is a broad and intransigent social problem. In 2005, there were approximately 3.5 million reports of family violence and nearly 1 million female victims of intimate partner violence (*National Crime Victim Survey [NCVS], 2006*). Surveys of representative samples of couples suggest that each year, one out of every eight husbands engages in physically aggressive behavior toward their wives. These acts range from instances of pushing or slapping to severe violence such as beating one's partner up or the use of weapons (e.g., Schafer, Caetano, & Clark, 1998; Straus & Gelles, 1990). Importantly, both clinical and community samples have demonstrated that women engage in physical aggression in their intimate relationships in proportions that are equal to or slightly higher than men (e.g., Archer, 2000; Chase, O'Farrell, Murphy, Fals-Stewart, & Murphy, 2003; Dutton, Nicholls, & Spidel, 2005; Krahé & Berger, 2005; Luthra & Gidycz, 2006); however, consequences of male-to-female physical aggression appear greater for women (Cascardi, Langhinrichsen, & Vivian, 1992; Janssen, Nicholls, Kumar, Stefanakis, Spidel, & Simpson, 2005). For instance, over 50% of women who have experienced IPV have been injured by their partners (Catalano, 2007). A third of all female homicide victims are murdered by a romantic partner; conversely, 3% of all male homicide victims are killed by an intimate partner (U.S. Department of Justice Bureau of Justice Statistics, 2007). As pointedly argued by Morse (1995, p. 269), women in these relationships are more likely to suffer injury that requires medical treatment far more often than men, "not necessarily because men strike more often, but because men strike harder".

Although magnitude and gravity of IPV are alarming, equally distressing is that children are over-represented in violent homes (Bair-Merritt, Holmes, Holmes, Feinstein, & Feudtner, 2008; McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006; Silvern, Karyl, Waelde, & Hodges, 1995). For instance, based on a secondary analysis of 1615 nationally representative dual-parent families with children, McDonald et al. (2006) estimated that 15.5 million children live in families in which IPV had occurred at least once in the previous year. Of these, 7 million children were estimated to have lived with families in which severe IPV had occurred. Thus, it is estimated that 29.4% of U.S. children live in partner-violent homes, with 13.3% residing in homes where severe violence occurs. In addition, police record of substantiated cases of domestic violence revealed that children were present in 43% of cases and 81% to 95% of these children saw or heard the violence (Fantuzzo, Fusco, Mohr, & Perry, 2007; Fusco & Fantuzzo, 2009). Moreover, a survey of 851 pediatricians revealed that 47% had treated at least one child for injuries from domestic violence in 2003 (Trowbridge, Sege, Olson, O'Connor, Flaherty, & Spivak, 2005).

## 4. The relationship between parental drug use and IPV

A growing body of research has revealed a robust relationship between drug use and partner violence. For instance, Brookoff,

O'Brien, Cook, Thompson and Williams (1997) reported that 92% of partners who engaged in IPV used alcohol or drugs on the days of the episode. Using data from the National Family Violence Survey and the National Survey of Families and Households, O'Leary and Schumacher (2003) found that the odds of severe male-to-female physical aggression were higher on days of cocaine use. Among men entering outpatient treatment for drug use, Fals-Stewart, Golden and Schumacher (2003) showed that after controlling for Antisocial Personality Disorder and dyadic satisfaction, the odds of severe male-to-female physical aggression were over three times higher on days of cocaine use. Moreover, in a series of studies, Fantuzzo et al. have shown that children are disproportionately present in homes in which there is a police call for domestic violence, and that children in these homes are more likely to be exposed to other risk factors including a parent's substance use (Fantuzzo, Boruch, Beriama, Atkins, & Marcus, 1997; Fantuzzo, Fusco, Mohr, & Perry, 2007).

There also is evidence supporting a dose–response relationship between substance use and IPV. For instance, a meta-analytic review of IPV perpetration and victimization risk factors and found an average effect size (*d*) of 0.65 across five studies assessing the association between men's drug use and male-to-female IPV (Stith, Smith, Penn, Ward, & Tritt, 2004).

Although less research has examined female substance abuser's risk for partner violence, this may be a particularly critical line of inquiry because female substance abusers are more likely to live with partners who also use drugs (e.g., Hser, Evans, & Huang, 2005). Also, when both partners are involved in drug use, each partner's drug use has been found to contribute independently to the prediction of partner violence (Golinelli, Longshore, & Wenzel, 2009). In addition, female substance abusers are more likely to have children (Mangrum, Spence, & Steinley-Bumgarner, 2006), are more likely to be living with their minor children (e.g., Pilowsky et al., 2001), and are more likely to be their children's primary caregiver, even when living with another adult (Stewart, Gossop, & Trakada, 2007). Thus, it is possible that different combinations of parental drug use and interparental violence may have different risks for children's exposure to these behaviors and have different effects for children in these homes.

## 5. The effects of interparental violence on children's development

Children of all ages are impacted by intimate partner violence, with infants and preschoolers exhibiting a number of symptoms of emotional and behavioral distress (e.g., poor weight gain, poor sleeping patterns, and irritability; Humphreys, 1995). Among school-aged children, witnessing severe interparental conflict has been linked to children's feelings of terror and helplessness and fears for their own and their parents' safety (Levendosky & Graham-Berman, 1998), and children's anxiety, depression, somatic complaints, and sleep disruptions (Kitzmann, Gaylord, Holt, & Kenney, 2003; Lewis-O'Connor, Sharps, & Humphreys, 2006; McFarlane, Groff, O'Brien, & Watson, 2003; Paterson, Carter, Gao, Cowley-Malcolm, & Lusitini, 2008; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003; Yates, Dodds, Sroufe, & Egeland, 2003). Children's exposure to interparental violence is also related to children's proneness to bullying, aggressive, violent, and delinquent behavior (Baldry, 2003; Cauffman, Feldman, & Waterman, 1998; Lemmey, McFarlane, & Wilson, 2001; McFarlane et al., 2003; Moretti, Obsuth, Odgers, & Reebye, 2006). However, as compared to children who witness non-severe violence or live in homes in which severe violence has occurred but they did not witness violent events, children's exposure to severe IPV was more strongly associated with children's internalizing, externalizing, and post-traumatic symptoms as reported by mothers and fathers (Lam, Fals-Stewart, & Kelley, 2009a). Thus, severity, chronicity, recency, and extent to which children are directly exposed or intervene in interparental violence appear to have important implications for child outcomes (see Edleson, 1999, 2004).

Although children who reside with a drug-abusing parent and children who are exposed to interparental violence may share symptoms such as depression, anxiety, and aggression, other child symptoms appear unique to each of these parent behaviors. For instance, considerable research has demonstrated that as compared to non-COSAs, COSAs are at greater risk of alcohol and drug use and abuse (e.g., Biederman et al., 2000; Caetano et al., 2003). In contrast, children who experience interparental violence may be more likely to exhibit fearfulness, and trauma-like symptoms (e.g., Levendosky & Graham-Berman, 1998). Because children are in close proximity to the violence (Pynoos, Frederick, Nader, & Arroyo, 1987) and because interparental violence takes place in what should be children's safe haven (e.g., Lang & Stover, 2008), IPV may be highly traumatic for children.

It is possible that parental drug use and IPV may activate different processes in children. Although their work has focused on marital conflict as related to children's emotional security and not the interaction of parental drug use and IPV, research by Davies et al. (e.g., Davies & Cummings, 1994; Davies, Harold, Goeke-Morey & Cummings, 2002) appears relevant for children who experience both parental drug use and IPV. They contend that children evaluate marital conflict in terms of its implications for their emotional security and respond accordingly. Witnessing hostile exchanges sets the emotional tone in the family and may undermine children's sense of emotional security. More specifically, marital conflict may reduce children's trust in the emotional security of their parents' relationship, and may affect the way that children interpret parent–child interactions such that children perceive parent–child conflict as more hostile and threatening (Harold, Shelton, Goeke-Morey, & Cummings, 2004). Both reductions in emotional security in the parents' relationship and decreases in children's feelings of security with their parents activate emotional, cognitive, and behavioral responses that may adversely influence long-term development (see Harold et al., 2004).

Although there may be some similarities in how these two parent behaviors affect children's emotions and behaviors, given the modest research addressing the interplay of these two parent behaviors, we urge the reader caution on this point. Related to this point is whether these distinct parent behaviors activate different processes in children, and the degree to which these processes create independent effects on child symptoms.

## 6. Effects of parental drug use and interparental violence on children in their homes: theoretical perspectives

### 6.1. Social learning theory and theories of social development

Despite the growing awareness that parental drug use and IPV are interconnected and that both parental drug use and IPV may have long-lasting effects on children who reside in these homes, theoretical developments that consider the interrelationship among drug use and interparental violence have received modest attention. As such, the following section is meant to stimulate greater interest in theories and comprehensive frameworks that may help to explain these often related behaviors.

Two theoretical explanations that have received notable attention are social learning and theories of social development. Both social learning theories (Bandura, 1986; Johnson, 2002) and theories of social development (Catalano & Hawkins, 1996; Johnson, Amatetti, Funkhouser, & Johnson, 1988) stress the importance of socialization and healthy relationships with parents and others to model prosocial beliefs and behaviors, and to provide interactions that illustrate appropriate rewards and consequences. From this vantage, substance use begins in the substance-specific attitudes and behaviors of parents who often serve as the child's first role models (Maisto, Carey, & Bradizza, 1999). Thus, witnessing drug use and exposure to drug paraphernalia may increase a child's familiarity with and increase the likelihood that these behaviors are imitated or tolerated in later life.

Simply stated, drug use, in and of itself, may provide a certain amount of risk.

In an application of the social development model, Catalano, R., Kosterman, R., Hawkins, J., Newcomb, M., & Abbott (1996) found that social development theory predicted drug use at ages 17 and 18. In contrast, Benda (1999) found support for a social learning theory model of adolescent alcohol use but not adolescent drug use. Although additional research is needed to test the utility of social learning theory as opposed to more complex theories that have their origins in social learning theory, it is possible that more comprehensive frameworks that consider both social models and a more complex array of social interactions (e.g., peer influences, neighborhood effects) will have greater utility in predicting drug use among COSAs.

Social learning theory, however, has been perhaps the most valuable in explaining intergenerational violence (e.g. Carr & VanDeusen, 2002; see Gelles, 2007; Markowitz, 2001; Mihalic & Elliot, 1997). Interparental violence may communicate that violence toward a partner is appropriate (Carr & VanDeusen, 2002; Corvo & Carpenter, 2000; Kalmuss, 1984; Widom, 1989) and an acceptable way of responding to stress, expressing anger, and controlling others within the family (Kalmuss, 1984). In support of social learning theory, Carr and VanDeusen (2002) found witnessing interparental violence in childhood significantly predicted men's reports of dating violence. Moreover, adolescent boys exposed to IPV are more likely to believe that the use of aggression is acceptable in dating relationships, and engage in more aggressive behaviors with their partners (Kinsfogel & Grych, 2004). Similarly, Mihalic and Elliot (1997) found that boys with a history of witnessing interparental violence were three times more likely to be abusive in dating relationships than boys from non-violent homes. Recent studies of college students have shown that women's perpetration of dating violence was associated with reports of their fathers' but *not* their mothers' physical abuse (Edwards, Desai, Gidycz, & VanWynsberghe, 2009; Kaura & Allen, 2004; Luthra & Gidycz, 2006). Clearly, additional research is needed with a broader range of females including adolescent girls and non-college student women. Nevertheless, social learning theory has demonstrated usefulness in predicting aggression in romantic relationships. Therefore, we believe that social learning theory and theories based in part on social learning may be useful in predicting aggressive behavior among both males and females who reside with a substance-abusing parent and who witness interparental violence.

Another theory that may have strong predictive utility is the theory of developmental psychopathology, in which Sroufe and Rutter (1984) proposed a developmental framework as a way to conceptualize the manner in which children adapt to harsh events (e.g., parental substance abuse and violence). From this perspective, children in these homes adapt at the expense of developmental milestones, which results in unhealthy and compromised behavioral responses (e.g., hypervigilance, insecure relationships characterized by fear or hostility). In other words, in the context of parental drug abuse and violence, children's emotional and behavioral problems may be viewed as efforts to adapt to an unhealthy family environment. Clearly, Sroufe and Rutter's theory, which has empirical support (e.g., Maughan & McCarthy, 1997), may prove useful as researchers attempt to understand how parent drug use and family violence create child vulnerability and the ways in which youth adapt to these adverse experiences.

It is possible that different theoretical perspectives will yield different expectations and predictions for COSAs' emotional, social, cognitive, physical, and behavioral outcomes. This, of course, would lend itself to rigorously controlled trials comparing predicted and actual outcomes.

## 7. Parental drug use and IPV: effects on youth in these homes

Few studies have examined whether parental violence, independent of parental drug use, may serve as a mechanism to disrupt youth

development. In one of the few investigations to address this issue, Hanson, Self-Brown, Fricker-Elhai, Kilpatrick, Saunders, & Resnick (2006) found that violence-exposed adolescents who reported parental alcohol or drug use had the highest rates of psychiatric diagnoses; however, parental drug use and violence exposure were independently associated with child outcomes.

In an analysis of 2756 children born in 18 large U.S. cities, prevalence of children's aggressive, anxious or depressed, and inattention/hyperactivity behavior measured at age three increased with the number of conditions the mother reported 1 year after delivery (i.e., mental health, substance use, and domestic violence). Moreover, approximately 40% of mothers who had a substance abuse problem (i.e., smoking, binge drinking, illegal drug use) reported domestic violence (Whitaker, Orzol, & Kahn, 2006). However, Whitaker et al. did not evaluate potential interactions between illegal drug use and domestic violence on children's behavior.

In a small scale cross-sectional study, Fals-Stewart et al. (2004) compared 40 demographically-matched families in which the father met criteria for drug abuse (DA) to 40 children whose fathers met criteria for alcohol abuse (AA) and to the behavior of 40 children from demographically-matched homes in which neither parent met criteria for substance abuse (NA). Children of drug-abusing men exhibited greater emotional and behavioral symptoms as reported by mothers. Importantly, interparental conflict witnessed by the child (as assessed by the Porter-O'Leary Scale) partially mediated the effects of family type (DA versus AA) on children's internalizing behavior. For the DA versus NA contrast, interparental conflict witnessed by the child and male-to-female violence (as assessed by the CTS-2) mediated the effects of family type on children's internalizing symptoms. However, because direct effects between family type and children's internalizing and externalizing symptoms remained significant, all mediation effects met criteria for partial, rather than full, mediation. Although cross-sectional, results of Fals-Stewart et al.'s study suggest that parental drug use may have independent effects on children's internalizing behavior that may be partially mediated by IPV.

## 8. The argument for examining IPV and parental drug use

Although COSAs are at elevated risk for the development of various types of problems, many offspring of drug-abusing parents are psychologically healthy. Therefore, the challenge to researchers is to identify heterogeneity in the family environments and experiences of COSAs, that may help not only identify risk factors, but also protective ones. Without appropriate models that consider the range of childhood experiences, emotional and behavioral problems may be completely attributed to parental drug use. Although genetic and environmental factors may create separate, single events that interact to create vulnerability for various youth problems, our argument, theoretical explanations, and suggestions for future research and clinical involvement, focus on the need to examine and treat the interrelationship between intimate partner violence (IPV) and parental drug abuse for children in their homes. Although this is not to argue that other variables (e.g., child maltreatment, parenting, peer values, parent psychopathology, quality of the neighborhood) should not be considered in tandem; rather, our rationale for concentrating on the relationship between substance abuse and IPV in this review is that the relationship between drug abuse and IPV is well-established (Caetano, Schafer, & Cunradi, 2001; Fals-Stewart, 2003; O'Farrell, Van Hutton, & Murphy, 1999; Stith et al., 2004). Second, exposure to IPV is all-too-common among children raised by drug-abusing parents (Fals-Stewart, Kelley, Cooke, & Golden, 2003; Hanson et al., 2006). Finally, exposure to IPV presents one of the most destructive risk factors for children's short- and long-term development (e.g., Fosco, DeBoard, & Grych, 2007; Grych, Jouriles, Swank, McDonald, & Norwood, 2000; see Russo, 2008).

The conspicuous absence of systemic research addressing the combined influence of parental drug use and interparental violence led Nicholas and Rasmussen (2006) to call into question the legitimacy of continuing to conduct research on children of substance abusers that does not control for interparental violence. Although Nicholas and Rasmussen examined COAs, a nationally representative sample of over 4000 adolescents found that 67.4% of those living with a family member who used drugs (most often a parent) also reported exposure to violence (Hanson et al., 2006). Thus, we believe that Nicholas and Rasmussen's argument is valid for children of drug abusers.

## 9. Research issues

Partner violence is high among drug-abusing parents with children in their homes (e.g., Fals-Stewart et al., 2003; Fals-Stewart et al., 2003; Frank, Brown, Johnson, & Cabral, 2002; Hanson et al., 2006; Lam, Fals-Stewart, & Kelley, 2009b) and in the early stages of marriage when children are likely to be young (O'Leary, Barling, Arias, Rosenbaum, Malone, & Tyree, 1989). Unfortunately, documented cases of domestic violence often have multiple young children in the home (see Fusco & Fantuzzo, 2009; Kitzmann et al., 2003).

Although several recent studies have spotlighted children's exposure to interparental violence, with few exceptions (e.g., Fantuzzo, Fusco, Mohr & Perry, 2007; Fantuzzo et al., 1997, 2007), the majority of these studies have not reported whether children's exposure to interparental violence may have been the incidental result of parental exposure to substance use. Given the extensive research showing that substance abuse often co-insides with interparental violence, children who experience interparental aggression may be likely to witness parental drug abuse. Thus, we would encourage researchers whose primary focus is family violence to consider whether these children are also subject to parental substance use, and if so, what type of substance(s), over what period, the severity of the parent(s) drug use (any drug use versus heavy drug use), and whether the child witnessed one (or both parents) while they were using or high. Because the dynamics of partner violence may also be related to specific behavioral problems among children (McFarlane, Malecha, Watson, Gist, Batten, Hall, et al. 2007), the nature of interparental violence (i.e., father-to-mother, mother-to-father, or both) and severity (i.e., severe, non-severe) should be examined as well. Likewise, researchers whose primary interests are substance abuse should assess the degree to which COSAs also witness family violence. We mention these questions as a starting point to bring to the forefront the number of children who witness interparental violence in the context of parental substance abuse and to increase our understanding of whether parental drug use coupled with interparental violence may provide unique, interactive, or cumulative risk for children's behavior and emotional well-being.

Clearly, differentiating the effects of parental drug use from those of interparental violence will be difficult. This challenge is exacerbated by the need to understand co-occurring family problems (e.g., poverty, poor parenting, child maltreatment, child temperament, parent psychopathology), gender differences, peer influences, the nature–nurture interplay, and stages of youth development. Thus, these two parent behaviors (i.e., parental drug use and interparental violence) are unlikely to be the only risks these children experience. Related to this issue, considerable research has shown that cumulative childhood events are associated with greater mental health (Edwards, Holden, Felitti, & Anda, 2003) and medical risks (e.g., Dube, Fairweather, Pearson, Felitti, Anda, & Croft, 2009; Dube, Felitti, Dong, Giles, & Anda, 2003). Thus, we are not advocating for models that examine only these two variables, but rather, multi-variable comprehensive models that include both of these parent behaviors. It is also possible that we have reached the point of diminishing returns in

terms of examining the effects of parental drug use alone as related to children's outcomes.

We would also appeal to investigators to examine the relative risk to children exposed to maternal versus paternal drug abuse and partner violence. In a recent study, Osborne and Berger (2009) found that children living with a substance-abusing parent were at greater risk for health and behavioral problems, this risk was not moderated by parent gender, and that two substance-abusing parents resulted in greater child risk than one. Another issue that warrants greater attention is how the impact of youth exposure to parental drug use and IPV may vary as a function of children's developmental stage and children's gender.

## 10. New perspectives for clinical intervention

Effective prevention and intervention for these children result in the quality of our understanding of these interrelated parent behaviors. Children in these homes are exposed to different risks and have different needs. By understanding the interplay of these parent behaviors, we may be better able to develop complex and comprehensive parent- and child-based approaches that support these youth and may have enduring effects. Clearly, further research is needed to examine interparental violence as a specific mechanism for child risk COSAs. Given the robust relationship between drug use and interparental violence, the importance of this research problem cannot be understated.

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