



Treatment of co-occurring child maltreatment and substance abuse

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Abstract

Despite high prevalence and severe negative consequences of child maltreatment (e.g., Brown, G. R., & Anderson, B., (1991). Psychiatric morbidity in adult inpatients with childhood histories of sexual and physical abuse. *American Journal of Psychiatry*, 148, 55–61; Jaudes, P. K., Ekwo, E., & Van Voorhis, J.V., (1995). Association of drug abuse and child abuse. *Child Abuse and Neglect*, 19, 1065–1075; Murphy, J. M., Jellinek, M., Quinn, D., Smith, G., & Goshkom, M., (1991). Substance abuse and serious child mistreatment: Prevalence, risk, and outcome in a court sample. *Child Abuse and Neglect*, 15, 197–211), the treatment of perpetrators and victims of child abuse and neglect remains grossly understudied (Behl, L. E., Conyngham, H. A., & May, P. F., (2003). Trends in child maltreatment literature. *Child Abuse and Neglect*, 27, 215–229). More than half of parentes founded for the abuse and neglect of their children have evidenced drug abuse, yet no treatments have been validated that concurrently address these problems. The reciprocal interaction between substance abuse and child maltreatment supports the need to concurrently treat these problems. This article illustrates the relationship between child maltreatment and parental substance abuse and proposes a behavioral model to explain the reciprocal influence of drug abuse and child maltreatment. A behavioral treatment plan that is designed to concurrently address drug abuse and child abuse is proposed and suggestions are made for future directions in this area. © 2005 Elsevier Ltd. All rights reserved.

Keywords: Child maltreatment; Substance abuse; Treatment

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Despite high prevalence and severe negative consequences of child maltreatment (e.g., Brown & Anderson, 1991; Jaudes, Ekwo, & Van Voorhis, 1995; Murphy et al., 1991), the treatment of perpetrators and victims of child abuse and neglect remains grossly understudied (Behl, Conyngham, & May, 2003). Contributing to this crisis, greater than half of the parents who have been found to physically abuse and neglect their children have evidenced drug abuse, yet *no* treatments have been validated to concurrently address these problems. Indeed, substance abuse programs are poorly equipped to manage issues specific to child abuse and neglect, and drug abusers are often excluded from programs specializing in the treatment of child maltreatment (e.g., Gershater-Molko, Lutzker, & Wesch, 2003). This deplorable oversight perpetuated the origination of this manuscript, the primary purpose of which is four-fold: (1) underscore the relationship between child maltreatment and parental substance abuse, (2) propose a behavioral model to explain the reciprocal influence of drug abuse and child maltreatment, (3) propose a behavioral treatment plan designed to concurrently address drug abuse and child abuse and neglect, and (4) suggest future directions in this area.

1. Brief prevalence and description of child neglect and physical abuse

Approximately 4% of children are reportedly victims of child maltreatment (McCurdy & Daro, 1993), with child neglect accounting for about 60% of the founded incidents of child maltreatment, and child physical abuse accounting for most of the remaining cases (Scannapieco & Connell-Carrick, 2002; U.S. Department of Health and Human Services, 1998). Unlike other forms of child maltreatment, child neglect involves an omission of protective behaviors that may result in harm to the child. Several forms of child neglect have been identified, including physical neglect (e.g., inadequate hygiene, poor nutrition/diet, inadequate supervision, household safety), emotional neglect (e.g., failure to provide affection, use of drugs in front of child), educational neglect (e.g., allowing truancy, failure to promote educational activities), and medical neglect (e.g., refusal or delay in seeking health care) (Combs-Orme, Martin, Fox, & Faver, 2000; Kaplan, Pelcovitz, & Labruna, 1999). U.S. Department of Health and Human Service (1998) reports indicate child neglect most often includes physical neglect (57% of neglect cases), educational neglect (29%), and emotional neglect (22%). Erickson and Egeland (2002) report that of the approximate 2 and a half million victims of maltreatment in the United States each year, more than half are victims of neglect. Although the aforementioned studies indicate high rates of child neglect, these rates are likely gross underestimates since child neglect often goes undetected.

Child physical abuse is the most frequently managed form of child maltreatment, with greater than half of all reports requiring intensive monitoring or treatment due to the potential for danger, including victim fatalities (Chaffin et al., 2004). Child physical abuse occurs when children incur injuries (e.g., bruises, abrasions, burns) resulting from purposeful malevolence from caregivers (Zuravin, 1991). Unlike neglect, there is often tangible evidence that physical abuse has occurred (Wekerle & Wolfe, 2003). Although child neglect is most often found to occur in children younger than 5 years, physical abuse uniformly affects children of all ages (Azar & Wolfe, 1998).

Females are reported for child maltreatment more than males, with 88% of all perpetrators of child abuse and neglect being the mothers of the victim (U.S. Department of Health and Human Services, 1998). Ethier, Palacio-Quintin, and Jourdan-Ionescu (1992) stated that mothers are more likely to neglect their children, whereas fathers are more likely to physically or sexually abuse their children. Characteristics that have been identified in caregivers who are at risk to maltreat their children include being a young mother, and raising a greater number of children in the home (see Hughes & Gottlieb, 2004; Klerman, 1993). Mothers less than 26 years neglect their children more often than older mothers (Jaudes et al., 1995). For instance, mothers who give birth to their children prior to 18 years are about 4 times more likely to be reported for abuse or neglect than mothers who are at least 21 years (Lee & George, 1999). Interestingly, as compared with perpetrators of abuse and neglect, their non-perpetrating counterparts report more problems in their family, greater parenting and child-rearing stress (Holden & Banez, 1996). Thus, non-perpetrating caregivers living in the homes of child abuse and neglect victims are also in need of treatment.

There are some characteristics of children that appear to put them at a greater risk of being a victim of neglect. For instance, almost all children who are reported for child neglect are under 8 years (Bernstein et al., 2003). In addition, children who are born prematurely, viewed as less attractive by their parents, evidence difficult temperaments and physical or mental disabilities, increase the risk of a child becoming a victim of abuse or neglect (Wolfe & McEachran, 1997; Zuravin & DiBlasio, 1996). Second or later born children are more likely to become victims of neglect than first-born children (Lee & George, 1999).

2. Strong relationship between drug abuse and child abuse and neglect

Co-occurring substance abuse and child maltreatment in parents is evidenced in both substance abuse treatment and child protective service settings. Perpetrators of child maltreatment have been identified to abuse illicit substances in the majority of substantiated cases (e.g., [Murphy et al., 1991](#)). Indeed, parental substance abuse appears to negatively influence at least 70% of reported cases of child maltreatment (see [Brown & Anderson, 1991](#); [Famularo, Kinscherff, & Fenton, 1992](#); [Locke & Newcomb, 2003](#)), and drug using mothers have been found to be 2 to 3 times more likely to be reported for child maltreatment than comparison mothers living in the same geographic area ([Jaudes et al., 1995](#)). Caseworkers report that 65% of children who have substance-abusing parents were maltreated while their parents were under the influence of alcohol, drugs, or both ([Westat, 1992](#)). In large community samples of up to 11,000 parents with a lifetime DSM-III substance abuse disorder, a little more than half of the parents self-reported neglect of their children ([Chaffin, Kelleher, & Hollenberg, 1996](#); [Kelleher, Chaffin, Hollenberg, & Fischer, 1994](#)). Therefore, it is not surprising that parental substance abuse has been cited by child protective service caseworkers as one of the greatest problems currently facing their agency ([Daro & McCurdy, 1992](#); [Kelly, 2002](#)), and that substance abuse continues to be used by parents who actively receive Family and Welfare Services ([Murphy et al., 1991](#)).

When the relationship between the different types of child maltreatment and substance abuse has been examined, neglect clearly demonstrates the strongest association with substance abuse ([Famularo et al., 1992](#)). Substances that are most often abused by perpetrators of child abuse and neglect include cocaine, opiates, heroin, and alcohol, with more than 24% of parents abusing multiple drugs ([Chance & Scannapieco, 2002](#)). The Drug Abuse Treatment Outcome Study (DATOS) examined both men and women who entered a community based drug and alcohol treatment program and in a sample of mothers, cocaine was the drug of choice for 58%, heroin for 24%, alcohol/marijuana for 8%, and non-specified for 9% ([Cash & Wilke, 2003](#)). Mothers who were using cocaine or heroin were twice as likely to abuse and neglect their children compared to mothers who used other substances.

Parental drug abuse has been shown to predict recurrence of child abuse and neglect ([McDonald, 1990](#)). Similarly, substance use of any type, either in the past, or presently occurring, appears to increase the likelihood of being reported for child maltreatment ([Kelly, 2002](#)). Parental substance abuse has also been found to influence re-referrals to child protective services ([English, Marshall, & Orme, 1999](#)), suggesting substance abuse continues to occur in these parents after child protective service involvement is initially discontinued.

3. Characteristics and consequences of co-occurring drug abuse and child abuse and neglect

Family constellations of maternal substance abusers that physically abuse and neglect their children are rather untraditional. As indicated by [Chance and Scannapieco \(2002\)](#), the households of these mothers tend to be unstable, as mothers are often the single heads of the household, and there tends to be multiple male father figures and other significant others who transiently reside with the mother, such as parents, aunts, other relatives, friends and roommates. In “providing a portrait of a typical family in which neglect occurs,” [Connell-Carrick \(2003\)](#) reports when the mother lives with a boyfriend, husband, or other family member, there is often conflict between these adults, a lack of positive affect, empathy, organization, and disengagement of paternal and family involvement in the rearing of children. Participation in family activities is also minimal primarily due to significant problems resulting from the mother’s drug abuse ([Gottwald & Thurman, 1994](#)). For instance, effects of chronic maternal drug use may cause loved ones to distrust or avoid these mothers, leaving them to raise their children without the support of family or friends. Perpetuating this problem, many of these mothers are uneducated and not married or cohabitating with another adult significant other. Thus, they are often unable to secure jobs that will cover costs associated with the care of their children while they are working (see [Magura & Laudet, 1996](#)). Various pathologies and related problems also complicate treatment planning, including faulty expectations regarding child development (e.g., [Twentyman & Plotkin, 1982](#)), problem solving skill deficits (e.g., [Hansen, Pallota, Tishelman, Conaway, & MacMillan, 1989](#)), depression (e.g., [Culp, Culp, Soulis, & Letts, 1989](#)), poor maternal affection, social problems/deficits (e.g., [Corcoran, 2000](#)), poor attachment and relationships between the victim and perpetrator (e.g., [Crittenden, 1988](#)), elevated levels of distress, rigidity, unhappiness, and loneliness when compared to matched controls ([Milner & Robertson, 1990](#)), difficulties responding to the needs of their neonates ([Gottwald & Thurman, 1994](#)), spend little time with their children, are inconsistent with their disciplinary practices, are socially isolated ([Kumpfer, 1987](#)), are more likely to ignore or become angry with their children ([Fontana, 1983](#)), demonstrate severe impairments in parenting abilities

(Daro & Mitchell, 1990), are likely to engage in criminal behavior, and often fail to supervise their children, including medical care, hygiene, and emotional attention (Corcoran, 2000). Tajima (2000) found that alcohol abuse increased the chances of a child being verbally abused by 34%. Inadequate knowledge of child development and parenting practices in substance abusing mothers is particularly likely to contribute to child maltreatment (see Connelly & Straus, 1992). Substance abuse has been linked to deficits in parenting behaviors and consequent behavioral and emotional problems in child victims (Bennett & Kemper, 1994), including problems in child development (Hawley, Halle, & Drasin, 1995). Thus, mothers who have been identified to abuse drugs and neglect their children must be treated utilizing skill-based interventions that address multiple problem domains.

Most studies investigating effects of substance abuse in child maltreatment have focused on mothers. However, some evidence suggests paternal substance use is also strongly associated with child maltreatment. Fals-Stewart, Kelley, Fincham, Golden, and Logsdon (2004) found that children from drug-abusing fathers display more internalizing (i.e. anxiety and depression) and externalizing symptoms when compared with fathers who do not abuse drugs and alcohol. Directly relevant to this paper, a higher frequency of family violence, marital conflict, dysfunctional disciplinary practices, and less monitoring of children was also found in the homes of the drug-abusing fathers. Fals-Stewart, Kelley, Cooke, and Golden (2002) investigated the psychosocial adjustment of children living in homes with drug-abusing fathers. They found that children with higher levels of psychosocial maladjustment had fathers who were younger, of lower socio-economic status, more distressed, and reported greater severity of physical violence in the home. Physical violence had the strongest association with the children's psychosocial adjustment. As might be expected, parental substance abuse was associated with greater paternal and maternal levels of distress, and paternal Anti-Social Personality Disorder was positively associated with psychosocial maladjustment scores in children. Specific problems that have been found to occur in homes in which substance abuse and child maltreatment co-occur include poor communication, family conflict, and poor overall family functioning (Moos & Moos, 1984).

4. A behavioral model to explain the need to treat substance abuse and child maltreatment concurrently

As previously reviewed, there are several stimuli (e.g., stress) that occur prior to, or are associated with, substance abuse, child abuse and child neglect. Indeed, these antecedent stimuli and events usually have a negative influence on all three problems, sometimes concurrently (see Table 1 for a few examples). Thus, targeting the elimination of these antecedent conditions, as well as the factors maintaining them, is crucial to the effective amelioration of both substance abuse and child maltreatment.

The reciprocal interaction between substance abuse and child maltreatment also supports the need to concurrently treat these problems. Indeed, substance abuse increases the likelihood of child neglect directly (e.g., substance use leads to immediate neglectful behavior) and indirectly (substance use results in behaviors that lead to later neglect; Sheridan, 1995). A clear example of its direct contribution is leaving a toddler in a car unattended for an extended time while using cocaine at a friend's house. In this example, cocaine intoxication distracts the parent from attending to the needs of the child, resulting in the child being left in the car unsupervised. An indirect contribution of substance use leading to child neglect would be increased irritability due to chronic cocaine use. Irritability increases the likelihood of stress, which secondarily increases the likelihood of forgetting a sleeping child in a car seat during a hot summer day.

Substance abuse has similar direct and indirect affects on child physical abuse. A direct contribution of drug abuse is hitting a child due to intoxicating effects of PCP, a drug known to influence irrational thinking patterns (e.g., paranoia) and aggressive behavior. An example of the indirect contribution of substance use to child abuse is increased irritability resulting from cocaine use, which may decrease tolerance of child misconduct, and therefore increase the likelihood physical abuse.

In the preceding examples, drug use influences child physical abuse and neglect. However, child physical abuse and neglect may lead to drug use. For instance, guilt associated with child maltreatment may influence a parent to use drugs to temporarily eliminate aversive thoughts. Similarly, a parent may be motivated to use a depressant substance to eliminate rapid heart rate resulting from an intense beating of a child, or aversive thoughts associated with the threat of receiving negative consequences for child neglect.

Amelioration of child abuse and neglect is, therefore, likely to result in decreased substance use, and vice versa. For instance, as was mentioned above, child maltreatment and substance abuse share many antecedent stimuli, including stress, unemployment, irritability, substance abusing friends and significant others, poor assertiveness skills, criminal activity, family conflict, and dangerous living environments. Thus, treatment should be aimed at

Table 1

Mechanisms by which several commonly experienced antecedent stimuli influence the occurrence and exacerbation of child neglect, child physical abuse, and substance abuse

Antecedent stimuli	Manner stimuli influence neglect	Manner stimuli influence abuse	Manner stimuli influence drug abuse
Lack of problem awareness	Unaware of negative consequences of neglectful behaviors, leading to lack of motivation to perform behavior that is incompatible with neglect, e.g., raised to believe all school work should occur in school	Unaware of negative consequences of abusive behavior, leading to lack of motivation to perform non-aversive disciplines, e.g., parent is convinced punishment must be perceived aversively by child	Unaware of negative consequences of substance use, leading to lack of motivation to avoid substance use, e.g., being told by friends that negative consequences of marijuana are minimal
Irritability/stress	Distracts from care taking responsibility, e.g., parent consistent worry causes her to forget to feed her baby	Decreases tolerance for undesired behaviors of child, e.g., irritable parent slaps her child for asking to avoid a chore	Contributes excitation associated with thoughts of eliminating aversive thoughts through substance use, e.g., parent decides to use alcohol to forget about the loss of his job
Poor impulse control	Influences disregard of caretaking responsibilities in favor of behaviors that are immediately more gratifying, e.g., ignore fleeting thought of cleaning dog feces on kitchen floor to eat a sandwich	Increases likelihood of reflexively utilizing aversive punishments, e.g., beat a child with the first object in vision prior to reviewing less aversive alternative disciplines	Increases likelihood of reflexive substance use, e.g., spontaneously consume offer to use drugs without thinking of negative consequences of drug use
Absent, poor, or inappropriate relationships with others	Poor relationship with child leads parent to avoid child, e.g., parent consistently comes home late to avoid discussion at dinner with child	Receive insufficient feedback from loved ones regarding inappropriateness of abusive behavior, e.g., friends are unavailable to discuss parenting strategies	Others may encourage use of drugs, e.g., parent lacks encouragement from others to stay clean
Poor social/ problem solving skills	Difficulties generating and selecting solutions to dangerous or neglectful situations, e.g., parent's difficulties solving her child's mathematics problem leads her to avoid homework assistance	Difficulties generating and selecting non-abusive alternatives, e.g., a parent's poor conflict resolution skills lead her to push her child against a table	Difficulties generating and selecting non-drug use alternatives, e.g., a parent reluctantly accepts an offer to use cocaine due to poor substance refusal skills and anxiety
Spousal violence	Concern relevant to getting abused distracts from basic caretaking behaviors, e.g., a mother's concern for self-preservation causes her to forget to pick her child up from baseball practice	Spouse abuse models aggressive behavior and creates emotional upset that interferes with rationale thought, e.g., after being victimized by spousal violence a parent reflexively smacks a child for asking what is wrong	Substance use assists in removing pain and upset feeling states that result from spouse abuse, e.g., parent abuses barbiturate drugs to "numb" physical injuries and self-derogatory statements that occur consequent to being abused by spouse

Antecedent stimuli that are listed in this table, including accompanying mechanisms by which these stimuli influence the occurrence and maintenance of child neglect, child abuse, and substance abuse are meant only as exemplars.

enhancing repertoires that buffer against these stimuli. Self-control training may be utilized to reduce impulses to initiate cocaine use at a party or defame a child for requesting to visit an eye doctor. Problem-solving skills training may decrease stress and provide repertoires to assist in resolving conflicts within the family. Stimulus control is likely to assist a mother in avoiding people who influence her to avoid behaviors that are consistent with her fulfilling the needs of her children, or encourage her to use substances. Family enhancement exercises may have great utility in increasing a father's motivation to spend more time with his child doing pleasant activities that are incompatible with drug use and child abuse and neglect. Relevant skills also influence a change in the natural consequences for behaviors that are incompatible with child maltreatment and drug use. For instance, improving a mother's parenting skills will likely result in her neglected child showing greater compliance, thus reinforcing the mother to perform desired parenting behaviors more often. Positive consequences resulting from appropriate parenting skills will also decrease the likelihood of future drug use since the parent will be increasingly motivated to spend more time with the non-drug using child doing drug incompatible activities. The mother will also be able

to work more efficiently and seek out social support due to decreased stress. Reciprocity of affection and positive interaction is also conceptualized to occur from other family members through the mother's modeling and direct benefits provided by her.

5. Treatment

Absence of controlled treatment outcome studies in substance abusing mothers who have been found to abuse and neglect their children is a significant problem (e.g., see Blau, Whewell, Gullotta, & Bloom, 1994; Chavkin, Paone, Friedmann, & Wilets, 1993; Conners, Bradley, Whiteside-Mansell, & Crone, 2001). Proposed interventions for this population include family skills training (Magura & Laudet, 1996) and home-based interventions (Jaudes et al., 1995; Wolfe, 1993). As emphasized by Donohue, Ammerman, and Zelis (1998), home-based family therapies permit efficient incorporation of children in the treatment process, resolve child care needs which are often barriers to treatment, permit assessment of home hazards, and assist in generalization of skill acquisition. Weinberg, Rahdert, Collover, and Glantz (1998) have also expressed the need to conduct controlled outcome studies of comprehensive patient-centered drug treatment approaches in high-risk adolescent groups.

Magura and Laudet (1996) highlighted a lack of drug abuse treatment programs for women, specifically the enlistment and retention of child neglecting women in substance abuse treatment has been inadequate and has not focused on the needs of female substance abusing mothers, such as the provision of child care, child intervention services, empirically derived parent training interventions, assistance in obtaining food, housing, educational and vocational assistance, and assertiveness training. Although young children of substance abusing mothers are at extremely high risk for developing substance abuse and other psychological problems, these children have not been a focus in treatment outcome studies, and are rarely included in community treatment programs for drug abusing mothers (Kumpfer, 1991). As reported by Kumpfer (2002), "Availability of publicly funded alcohol and drug treatment facilities does not match the need for such facilities" (p. 425). She goes on to report that all but a few of the agencies that do provide treatment in this population restrict their services to the mother exclusively to "focus on her own recovery." However, preliminary research indicates that parent-training in substance abusing mothers has resulted in reductions in drug treatment among these mothers, while preventing later substance abuse among these children (see Kumpfer, 2002). In any event, it is not yet known if substance-abusing mothers who neglect their children should be seen individually or with their families due to a lack of empirical evaluation.

5.1. Treatment outcome studies in child abuse and neglect

Controlled treatment outcome studies in child abuse and neglect are desperately needed. Of the few extant studies that exist, the behaviorally based interventions appear to offer great promise. Results from existing investigations indicate child-maltreating parents are responsive to training in problem solving, eliminating home hazards, and improving home cleanliness and hygiene (Ammerman, 1998; Gershater-Molko et al., 2003; Paget, Philp, & Abramczyk, 1993). Uncontrolled investigations of Ecobehavioral programs that involve behavioral skill-based interventions that are implemented in the environment in which neglect occurs have indicated significant improvements from pre- to post-treatment in the aforementioned areas. Examples from recent studies include the personal hygiene and dental care of children, home cleanliness, and adequate nutrition in a neglecting family with four children (Lutzker, Campbell, & Watson-Perczel, 1984), reduction of home hazards in 3 families involving neglect (Barone, Greene, & Lutzker, 1986), improvement in affective responses of 6 neglecting mothers with their infants (Lutzker, Lutzker, Braunling-McMorrow, & Eddleman, 1987), and improvement of neglectful conditions in the home environment in 3 neglecting families (Watson-Perczel, Lutzker, Greene, & McGimpsey, 1988).

Lutzker and colleagues were the first to apply behavior therapy as a treatment for child neglect. Project 12 Ways was developed as a behavioral home visitation program offering empirically supported services based on family needs and has demonstrated efficacy in uncontrolled trials (see Lutzker, 1994). The program involves parenting skills training, neglect specific interventions, stress management, assertiveness skills training, communication skills training, home safety skills training, job finding skills training, problem-solving skills training, and parent training. Project SafeCare was subsequently developed in an effort to standardize some of the Project 12 Ways interventions.

Each component is scheduled to occur within 5 sessions, and component interventions are scheduled based on need. For example, if safety appears to be of greatest concern this component is provided first. Lutzker and his

colleagues have demonstrated significant improvements in safety and parenting skills among 90 caregivers of child neglect and abuse, or at-risk for child maltreatment who completed the Project SafeCare treatment program (Gershater-Molko et al., 2003). Thus, in samples that have included neglecting mothers, the Ecobehavioral approach appears to address some of the problems that have been influenced by, or associated with, drug abuse. Unfortunately, studies have yet to examine the effects of Ecobehavioral strategies utilizing controlled methodology in child maltreatment or substance abuse samples. Moreover, substance abuse specific interventions have not been developed for use within this model. Indeed, when substance abuse is identified to occur, the individual is referred to a substance abuse provider in the community, or is denied from enrolling in Project SafeCare if the substance abuser is not enrolled in a substance abuse program (see Gershater-Molko et al., 2003). Therefore, although the intervention components of Project SafeCare appear promising, the investigators do not recommend its use for substance abuse issues.

Henggeler et al. (1991) developed a Multi-Systemic Therapy. Similar to the Ecobehavioral approach, the program components address parental education and coaching, the role of ecological influences in the development and amelioration of problem behavior, and adjusts standardized formats to be consistent with unique family needs. Preliminary effectiveness of this model with child abuse and neglect has been demonstrated in a controlled trial (see Brunk, Henggeler, & Whelan, 1987). Eight abusive families and 8 neglectful families were randomly assigned to receive 8 sessions of Multi Systemic Therapy (MST), and 10 abusive families and 7 neglectful families completed 8 sessions of parent training. MST sessions included informal education in child management strategies and appropriate developmental expectations, teaching neglectful parents to perform executive functions, improving the mothers' relations with extended family, serving as advocates for families that encountered difficulties with outside agencies, and attempts to enhance social perspective-taking abilities of family members.

Results of parent self-report inventories demonstrated that both interventions were equally effective in their improvement of global psychiatric functioning and overall stress for neglecting and physically abusive parents. Parents who received parent training reported greater reductions in social problems than those parents who received MST. MST therapists reported a greater decrease in family problems, and MST appeared to lead to significantly enhanced parent-child interactions compared with parents who received parent training. Due to the low number of subjects, lack of assessment of treatment integrity, and lack of structured diagnostic interviews, it is difficult to draw definitive conclusions from this study. Brunk et al. (1987) indicated the parent training approach excluded rehearsal in the home, which is an integral part of the approach proposed by Wolfe and his colleagues. The relative merits of MST and parent training appear promising in neglecting parents, although the results did not decisively favor either intervention. Importantly no controlled treatment outcome studies involving parent training have been conducted in child neglect since this study (see review by Dore & Lee, 1999). In addition to MST's promise in child neglect and abuse MST has certainly established its effectiveness in reducing adolescent substance abuse. However, its effectiveness in adult substance abusers has not been demonstrated, suggesting its empirical application to child neglecting and/or abusing mothers identified to abuse drugs would require substantial development and evaluation.

Supporting the need to employ behavioral rehearsal when implementing behavioral parenting skills training procedures with parents and child victims of physical abuse together, Chaffin et al. (2004) demonstrated that a behavioral rehearsal-based parent training program was more effective in reducing child physical abuse than a standardized didactic parenting training approach offered in community context, or a combination of the behavioral rehearsal parenting program and additional ancillary services ($N=110$). Although all participants had to evidence physical abuse, histories of child neglect reports ($M=2$) were indicated as frequently as child physical abuse reports ($M=2$) at baseline assessment. No significant differences in re-reports of child neglect reports were indicated between the experimental interventions. The authors believe the latter finding was due to the exclusion of neglect-specific components in PCIT (e.g., targeting environmental hazards, supervision/monitoring). In support of the latter statement, both Lutzker's Ecobehavioral and Henggeler's MST approaches have demonstrated outcome improvements for both child neglect and abuse referrals, and both of these approaches include procedures explicitly targeting child neglect and abuse. The preceding studies also suggest parent training is an effective strategy in reducing child physical abuse, although behavioral rehearsal appears to be warranted when implementing this intervention.

Another treatment of child neglecting parents that demonstrates promise is individually based interventions that emphasize problem-solving skills training. Dawson, de Arnas, McGrath, and Kelly (1986) utilized a controlled multiple baseline design to examine a problem-solving skills training approach in 3 mothers who were found to neglect their toddlers. The problem-solving skills training program focused on resolving familiar and novel childcare dilemmas. The study found problem-solving training to be effective in teaching neglecting mothers to generate more

solutions to problems, as well as subjective improvements in caseworker reports, and these results were maintained at a 15-month follow-up. Results are consistent with other study findings that have found effective problem-solving skills to buffer against maltreatment in mothers during stressful situations (Reis & Heppner, 1993). Moreover, problem-solving skills training procedures have been found to reduce adolescent substance abuse, and other problem behaviors that have also been indicated in child neglect and abuse, in controlled trials (see Azrin et al., 2001). However, as pointed out by Hansen and MacMillan (1990), the relative benefits of problem-solving strategies in neglecting parents are undetermined.

Controlled treatment outcome studies involving social skill interventions have demonstrated efficacy in neglected and abused children (Davis & Fantuzzo, 1989; Fantuzzo et al., 1988; Fantuzzo, Stovall, Schazhel, Goins, & Hall, 1987). Surprisingly, no controlled studies have examined social skills training approaches involving both the mother and her maltreated child or family (i.e., communication skills training between mother and child/family). Such an approach would be consistent with several behavioral and family-based substance abuse programs in adults and adolescents. In addition to behavioral skills training approaches, social skills training approaches have demonstrated efficacy in conjunction with social networking interventions with neglecting mothers (Gaudin, Wodarski, Arkinson, & Avery, 1991). The latter study involved 34 neglecting mothers. Mothers receiving the combination of social skill interventions demonstrated higher scores on parenting practices and attitudes compared with those in the standard child welfare services at 6- and 12-month follow-ups.

Paget et al. (1993) summarized lack of treatment studies in child maltreatment, and made recommendations regarding future outcome studies. Recommendations include outcome studies being conducted in samples that specifically identify characteristics, such as DSM diagnoses, utilizing standardized measures of neglect and abuse, utilizing controlled methodology, including family members and significant others in treatment, and utilizing parenting and communication skills training. Of the few controlled treatment outcome studies pertaining to child neglect, none have employed sufficient experimental rigor such as utilizing neglect-specific and multiple assessment measures, structured diagnostic interviews, blind assessors, active treatment comparison, and assessment of treatment adherence. Moreover, other than Gaudin (1993), the studies lack adequate sample size and follow-up to assure generalizability and durability of results. As a result, there is a need for treatment outcomes studies to be conducted in child neglect, and more specifically, in child neglect that co-occurs with substance abuse (see Blau et al., 1994). Corcoran (2000), stated that “. . .there is still little study in any one theoretical orientation, although behavioral, cognitive-behavioral, and multi-systemic approaches show promise” (p. 582). In addition, she states that there is a great need to treat child maltreatment and substance abuse simultaneously. Along these lines, the family-based drug treatment programs may be particularly advantageous in child neglecting mothers who abuse drugs, particularly those that emphasize cognitive-behavioral interventions.

Donohue and Van Hasselt (1999) provide preliminary efficacy for Family Behavior Therapy (FBT) in the treatment of caregivers of children who had been abused, neglected, or both. This study included 47 primary caregivers of maltreated children with half of these children reported for neglect. FBT consisted of 16 home-based sessions (90 min each) scheduled on a weekly basis, and all family members living in the home were encouraged to participate. Role-playing, behavioral rehearsal, and descriptive reinforcement strategies were extensively utilized, and therapies were implemented sequentially and cumulatively. Child interventions focused on teaching children to identify early cues to violence, interpersonal safety skills, decrease risk of harm, and engage in escape/avoidance strategies, as needed (see Margolin, 1979). Concurrently, caregivers learned to identify/prevent early signs of abuse, and were taught positive methods to differentially reinforce desired behaviors, and to implement contingency management strategies (e.g., point system). To maintain treatment integrity therapists followed a treatment manual (see Donohue, Van Hasselt, Miller, & Hersen, 1997) and utilized in-session prompting checklists. Results indicated that caregivers demonstrated significant improvements in most measures, and similar patterns of improvement were found for caregivers across abuse types (i.e., neglect, physical abuse, emotional, sexual). Thus, at post-treatment, relative to pre-treatment, caregivers perceived their children as being significantly more adaptable and less demanding, caregivers perceived themselves as being less depressed, restricted, and socially isolated, caregivers were more satisfied with their children in communication, home conduct, response to discipline, overall, and with the friends of their children. Absence of a control or intervention comparison group in the latter pilot study obfuscates definitive conclusions relevant to the efficacy of this program. However, the results of this study suggest the empirically derived FBT components offer promise in the treatment of neglecting mothers of all ages, and their children from birth to 17 years. Of particular interest to generalizability of results, the sample was typical of true

maltreatment cases referred by CPS, thus the interventions were highly robust, culturally sensitive, and able to address great diversity.

5.2. *Controlled treatment outcome studies in drug abuse*

Controlled treatment outcome studies of substance abuse, particularly among adult substance abusers, are relatively advanced, as compared with outcome studies in child abuse and neglect. Some of the validated programs include intervention components that appear to be particularly worthy of employment in child neglecting mothers who abuse drugs, both for adults and adolescents. Each major approach has its distinct advantages, although those that have demonstrated concurrent improvements in areas that are problematic among neglecting mothers (e.g., family relationships, employment, depression, anxiety, engagement of family members in treatment, misconduct) would appear especially valuable for use in this population. For instance, in adolescent samples, Brief Strategic Family Therapy (BSFT) is innovative in its empirically validated methods of treatment enlistment (telephone and home interviews to engage non-motivated family members), and has demonstrated consistent reductions in the frequency of drug use according to objective urinalysis testing and standardized self-report measures, as well as improvements in family functioning and conduct, particularly among ethnic minority youth (e.g., Santisteban et al., 2003). In utilizing components of this approach for child neglect its interventions relevant to the enlistment of minority family members is very appealing. Multidimensional Family Therapy (MDFT) has been shown to be effective in several studies. In a recent study, MDFT reduced drug use up to a 12-month follow-up, as well as global family competence at post-treatment, relative to control conditions (Liddle et al., 2001). Moreover, although there were no between group differences in conduct and grade point average in the aforementioned study, improvements were found in youth acting out behaviors from pre-treatment to follow-up, an obvious problem among families inflicted by child neglect. Similar improvements have resulted consequent to Conjoint Family Therapy (CFT), including a creative “one-person” family therapy that was almost as effective as CFT (e.g., Szapocznik, Kurtines, Foote, Perez-Vidal, & Hervis, 1983). Working with individuals in a family context is economical, and would probably work well in child neglecting mothers when family support is lacking. Integrated Family and Cognitive–Behavioral Therapy (IFCBT) is a new and well conceptualized family-based behavioral intervention that has led to improvements in several areas of family functioning, problem-solving and learning strategy skills, and reductions in drug use, in a controlled Stage I trial involving adolescents (Latimer, Winters, D’Zurilla, & Nichols, 2003). Although the authors reported the results could not yet be generalized to female and ethnic minorities due to under representation of these groups in this study, the intervention comprehensively (48 scheduled sessions) integrated many interventions that are also recommended for use in child neglect (i.e., sessions were focused on utilizing cognitive and problem-solving skills training methods to address the management of peer pressure, urges to use drugs, cope with relapses). The Purdue Brief Family Therapy Model (Lewis, Piercy, Sprenkle, & Trepper, 1990), and Family Functional Therapy (see review Waldron, Slesnick, Turner, Turner Brody, & Peterson, 2001) have also demonstrated reductions in adolescent drug use. Unfortunately, the efficacy of the aforementioned drug abuse treatment approaches in child neglect and adult substance abuse is undetermined at the present time.

There are several family-based interventions that have been empirically validated with adults that have included interventions to address problem areas that are consistent with those experienced by child neglecting mothers. For instance, in controlled trials Behavioral Couples Therapy (BCT) has consistently and clearly demonstrated reductions in drug abuse, family satisfaction, and adult partner violence in substance male abusers (e.g., Fals-Stewart, Birchler, & O’Farrell, 1996; Fals-Stewart, O’Farrell, & Birchler, 2001; Fals-Stewart et al., 2000). The developers of BCT have also recognized the unique needs of adult female substance abusers (e.g., focus on enhancing family support, depression, unemployment), and BCT has also been shown to result in similar improvements in this population (Winters, Fals-Stewart, O’Farrell, Birchler, & Kelley, 2002). Like the proposed FBT approach, BCT focuses on active recruitment of significant others to assist in the treatment of the identified substance abuser, employment of multiple behavioral/systems oriented therapies targeting the management of urges to use drugs, avoidance of exposure to drug related stimuli, emphasis on treatments within the program that appear particularly warranted (i.e., based on need), assist in coping with relapse, utilize drug refusal skills training, behavioral contracting, strategies to prevent violence, communication skills training, and standardized relationship enhancement exercises that focus on family support and cohesion that anecdotally appear to be particularly preferred in female substance abusers (as reported in Winters et al., 2002). With the exception of the substance

abuse specific interventions, this approach is very consistent with the Ecobehavioral approach to child neglect. BCT has yet to be examined in adolescent substance abusers, although positive effects have occurred in children of drug abusers being treated by BCT (Kelley & Fals-Stewart, 2002).

Although not tested for use in adult substance abusers, Multi-Systemic Therapy (MST) represents the only intervention approach found to reduce illicit drugs, and MST has also demonstrated positive outcomes in child neglecting caregivers other than the FBT approach to child neglect (see Donohue & Van Hasselt, 1999 in Preliminary Studies below). With the exception of Henggeler, Pickrel, and Brondino (1999), MST has clearly demonstrated positive outcomes in relation to community samples in controlled trials (Borduin et al., 1995; Henggeler et al., 1991; Henggeler, Melton, & Smith, 1992). MST offers distinct advantages in the treatment of neglect over other substance abuse interventions, including its concurrent reduction in youth violence and delinquency and implementation of therapy in the homes. MST has not, however, been adapted for use with adult substance abusers, and has yet to be evaluated with neglect specific outcomes (e.g., home hazards, home beautification).

Of the evidence-based interventions for substance abuse and child maltreatment, the family-based behavioral therapies appear to offer particular promise in addressing these problems concurrently. Indeed, multiple studies have demonstrated the efficacy of Family Behavior Therapy (FBT) in drug abusers. Azrin, McMahon et al. (1994) examined FBT compared to Supportive Therapy (ST) in drug users. FBT therapists employed interventions designed to eliminate/control urges to use illicit drugs, family-based communication skills training procedures, stimulus control strategies aimed at encouraging and assisting subjects in avoiding drug associated stimuli, behavioral contracting, and job finding skills training. ST therapists facilitated discussion of drug abuse issues, and were non-directive in therapeutic orientation. Drug use was reduced to a differentially greater extent for FBT subjects versus. ST subjects, as measured in terms of number of days of use, and when measured only according to urinalysis results. The mean number of months of drug abstinence for all Ss for all drugs was 6.36 months for FBT and 2.80 months for ST. The largest difference was seen in youth; a mean of 10.5 months of drug abstinence for the primary drug of FBT Ss versus 1.0 months of abstinence for ST Ss. Results of a 9 month follow up indicated that 71% of ST participants and 42% of FBT participants were using drugs at follow-up, according to urinalysis, and patient and family reports. Thus, durable positive effects were found for FBT in adult and adolescent drug abusers.

A second study of FBT in drug users consisted exclusively of adolescents (Azrin Donohue, Besalel, Kogan, & Acierno, 1994). Results indicated that Ss who were randomly assigned to receive FBT significantly decreased their drug use more than Ss who were randomly assigned to receive Supportive Therapy (ST) as measured by urinalysis results only, or days of drug use using urinalysis plus family and self-reports of drug use. Time course data analysis showed little or no change over the 6 months of treatment in drug use by ST Ss, whereas drug usage decreased significantly by about the third month for Ss who received FBT. Significant improvements were also found for FBT Ss, as compared with ST Ss, for depression, alcohol use, and youths' conduct problems, schoolwork attendance, parent satisfaction with youth, and youth satisfaction with parents. Thus, this pilot study suggested adolescents are particularly responsive to FBT, as compared with ST.

A third controlled treatment outcome study (Azrin et al., 2001) expanded on the favorable results of FBT by examining the effectiveness of a refined FBT in comparison with an empirically grounded intervention (i.e., an individualized cognitive problem-solving treatment) in a sample of youth who were dually diagnosed with a conduct disorder and a drug abuse disorder. Interventions used in the FBT program included: Behavioral Contracting, Stimulus Control which encouraged youth to avoid situations that placed them at risk to use drugs, Self Control which assisted youth in controlling their urges to use drugs, and Communication Skills Training. The Individual Cognitive Problem-Solving Therapy (ICPS) was based on theory, empirical research, and previously developed problem-solving methods that have been shown to improve self-control and problem-solving deficits in youths and adults evidencing aggressive and defiant behaviors (e.g., Dodge, 1986; D'Zurilla, 1986; D'Zurilla & Goldfried, 1971; Kazdin, 1987; Kazdin, Bass, & Siegel, 1989; Kendall & Braswell, 1982, 1985, 1987; Kendall, Padawer, Zupan, & Braswell, 1985; Spivak, Platt, & Shure, 1976). Of conceptual importance, the problem-solving treatment employed in this study differed from most previously researched problem-solving therapies (e.g., D'Zurilla & Goldfried, 1971; Kazdin, 1987; Kazdin et al., 1989; Kendall et al., 1985, 1990) in that it was more "purely cognitive" and promoted the learning of a general cognitive strategy that could be applied to a wide range of problems in diverse situations. The therapist did not encourage the generation of choices that were distinctly pro-social, or evaluate, reinforce, or punish the content or merit of the youths' choices but instead always maintained a non-directive approach. Youth in both intervention conditions demonstrated significant decreases in their average number of self-reported days using illicit

drugs per month, improved problem solving skills, increases in parents' satisfaction with their youth's drug use, increases in youths' satisfaction with their parents' reactions to their use of drugs, from the 6 months preceding treatment to the 6 months during treatment. These improvements were significantly maintained from pre-treatment to 6 months follow-up. An alternative conclusion regarding the lack of difference between treatments is that the benefits of both were attributable to non-treatment specific factors since no placebo condition was included. In support of the conclusion that the benefits were treatment specific is the previous finding both by Azrin, Donohue et al. (1994), Azrin, McMahon et al. (1994) and by Kazdin et al. (1989) that supportive counseling did not produce the extent of benefit as did FBT with drug abusing youth and Problem-Solving with conduct disordered youth, respectively.

5.3. Support for FBT in the concurrent treatment of drug abuse and child maltreatment

There are many reasons FBT is an optimum intervention approach in this population. FBT includes many of the strategies that have either been employed in controlled trials of FBT, or recommended by others for this population (e.g., multi-component treatment with extended frequency and duration of treatment to address child abuse and neglect comprehensively, job finding skills program that has increased employment, home-based to improve retention and generalizability of study findings, empirically-supported enlistment procedure to bring about greater family participation, home tours to objectively monitor and teach home safety and safety skills, allowing participants to choose the order in which standardized interventions are administered to increase motivation and interest in therapy, as well as to assist in the unique needs of this diverse population; see Donohue & Azrin, 2001). FBT is one of the very few intervention programs to demonstrate significant marijuana, "hard" drug, and alcohol use reductions (according to urinalysis, self- and significant other TLFB standardized reports) in both adult (Azrin et al., 1996; Azrin, Donohue, et al., 1994; Azrin, McMahon, et al. 1994) and youth (Azrin, Donohue, et al., 1994; Azrin et al., 2001) drug abusing samples in controlled trials. In addition, FBT is the only intervention approach to demonstrate positive outcome support in both substance abuse and child maltreatment samples, other than MST, and is the only intervention approach to demonstrate significant reductions in outcome measures specific to child neglect and drug use. FBT is the only intervention to demonstrate positive outcomes in caregivers of physical abuse and neglect victims of various ages (i.e., infancy to adolescence), as other evaluated interventions developed for neglect have been limited to young child victims. FBT is the only intervention program for child maltreatment that has developed utilized measures of treatment integrity. FBT outcome studies have demonstrated positive outcomes in multiple domains according to standardized instruments and objective measures that are relevant to substance abusing mothers who abuse and neglect their children (i.e., reductions in child abuse potential, loneliness, depression, problems with family, stress, perceptions of children as more adaptable and less demanding, less restricted and socially isolated, greater parental satisfaction with their children in communication, improvements in youth conduct, higher rates of employment and school attendance, improved satisfaction with adult significant others, greater problem-solving skills).

6. Concluding comments

The treatment of child abuse and child neglect has been grossly understudied in controlled treatment outcome studies, although both of these maltreatment types are relatively prevalent. Perhaps more deplorable, substance abuse plays a significant role in up to 70% of cases referred to child protective services, however, no controlled treatment outcome studies have been conducted in this population. Moving towards the development of treatment specific to this population, this paper provides the first comprehensive review of existing interventions that appear to be relevant to both child maltreatment and substance abuse populations. Also assisting in this process, a behavioral model was proposed in this paper that clearly underscores the importance of conducting controlled trials of family-based behavioral strategies that are focused on teaching caregiver skills that may act to buffer against stimuli that commonly precede both substance abuse and child maltreatment. Some evidence suggests these parents are more likely to prematurely discontinue treatment, and evidence poor compliance to therapy protocols, including session attendance (Donohue, Ammerman, et al., 1998). Therefore, in addition to providing therapy in caregiver homes (Donohue & Van Hasselt, 1999), it may be necessary to concurrently initiate enlistment and retention strategies (Donohue, Ammerman et al., 1998; Donohue, Azrin et al., 1998).

Of course, it is not possible to examine the effectiveness of treatments without psychometrically validated outcome measures. Therefore, quite aside from the nature of treatment, it is important that on-going assessment of co-morbid

problems occur, and that better measures of treatment outcome are developed that are specific to this population. Along these lines, less than a dozen measures exist that are specific to child abuse and neglect, and no measures have been developed that are specific to substance abusing parents who have evidenced child maltreatment. This is an important oversight since the validity of assessment instruments for drug abuse may be compromised in child maltreatment populations, and vice versa. For instance, some caregivers may be willing to admit drug use in drug abuse clinics, but deny similar use in child maltreatment settings due to concerns of losing custody of their children, which is often a mandate in most judicial courts overseeing child maltreatment cases. Therefore, it may be necessary to qualify questions about child maltreatment and substance use frequency such that negative judgments or criminality are not inferred or implied (e.g., “Many parents leave their young children unattended in cars because they know it will only be for a short time before they are expected to return. How many times has this happened to you?”). Along a different vein, there are many scenarios in which child maltreatment directly influences drug abuse (e.g., getting intoxicated while responsible for supervising a child), and vice versa. However, no measures have been developed to assess these scenarios. Since very few validated measures exist that are specific to the needs of substance abusing caregivers who have neglected or abused their children, it may be beneficial to concurrently administer both experimental, and established, assessment instruments during baseline assessments in this population. Such experimentation would parsimoniously permit the validation of novel instruments, while maintaining the integrity of treatment outcome research.

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