Collaboration between Child Welfare and Substance-Abuse Fields: Combined Treatment Programs for Mothers*

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Objective To review collaboration between child welfare and drug-abuse fields in providing treatment to mothers who abuse drugs and maltreat their children. Methods Literature review of studies examining effects of maternal drug abuse on parenting skills and outcomes of interventions for both maternal drug abuse and parenting skills. Results Parenting skills differ between mothers who do and do not abuse drugs, but these studies are primarily limited to mothers of infants and preschoolers. The evidence base for interventions to address both substance use and parenting in these mothers is growing, but more well-controlled studies are needed. Opportunities for improved collaboration between fields are presented. Conclusion Progress has been made toward collaboration to address drug abuse and parenting skills of mothers who abuse drugs, but more integrated strategies are needed, especially for mothers who use drugs and maltreat their children.

Key words child maltreatment; drug abuse; treatment; parenting.

Dr Lizette Peterson devoted her career to injury prevention, which included preventing parents or other caregivers from injuring their children (Peterson & Brown, 1994; Peterson, Ewigman, & Vandiver, 1994; Peterson, Gable, Doyle, & Ewigman, 1997; Peterson, Gable, & Saldana, 1996; Peterson, Tremblay, Ewigman, & Saldana, 2003). Children whose parents abuse alcohol and/or drugs are almost three times more likely to be abused and more than four times more likely to be neglected than children of parents who do not abuse these substances (Kelleher, Chaffin, Hollenberg, & Fischer, 1994). Peterson et al. (1996) identified substance-abusing mothers as a particularly under-researched and underserved subpopulation of mothers who maltreat their children. As a result, they called for increased collaboration between the fields of child welfare and substance abuse to offer more effective, comprehensive, combined treatments for those mothers with dual problems.

This article examines the past and present collaboration between the fields of child welfare and substance abuse as called for by Peterson et al. (1996). Treatment programs integrating both substance abuse and child maltreatment interventions are the focus of this review. These combined interventions offer the greatest potential for helping mothers become better parents, thereby averting consequential problems and costs associated with child abuse and neglect (Margolin & Gordis, 2000). This article begins with a review of the research examining the parenting skills of mothers who use drugs. Because drug treatment is typically a pivotal part of child welfare case plans (Young & Gardner, 2002), this article focuses on empirically supported treatments that affect both maternal drug abuse and parenting skills for mothers who abuse drugs. Special effort was made to identify interventions that address the unique problems of women who abuse drugs and who allegedly maltreat their children. The last section of this article identifies opportunities to facilitate collaboration between the child welfare and substance-abuse fields and concludes with recommendations for future research.

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To maintain a sharp focus on the intersection between substance abuse and child welfare, the parameters of this review should be identified. For instance, this article reviews studies in which the primary drug of abuse is cocaine and/or heroin. It is important to note, however, that polydrug use is widespread among substance abusers (Iguchi, Stitzer, Bigelow, & Liebson, 1988; Office of Applied Studies, 1999); therefore, participants are likely to be using a combination of drugs and alcohol. Because physical abuse and neglect are the most common forms of child maltreatment among those parents who use drugs (National Clearinghouse on Child Abuse and Neglect Information, 2004), these remain the focus of this article (as opposed to sexual abuse or emotional abuse). Moreover, this article is limited to research with mothers because of the high percentage of single, female parents in the subpopulation of parents who abuse drugs and maltreat their children (National Center on Addiction and Substance Abuse, 1999).

Substance Abuse and Parenting

Women who abuse drugs often have multiple sources of stress, including low socioeconomic status, single parenthood, lack of social resources and supports, and inadequate or unstable housing (Hutchins & DiPietro, 1997; Marcenko, Kemp, & Larson, 2000). Many of these women were sexually or physically abused as children and adults (Knisely, Barker, Ingersoll, & Dawson, 2000). Many have mental health problems such as depression and personality disorders (Grella, 1997; Horrigan, Schroeder, & Schaffer, 2000) and low cognitive ability (Chavkin, Paone, Friedmann, & Wilets, 1993; Kaltenbach & Finnegan, 1998). The combination of concrete needs, lack of social support, mental health issues, and cognitive ability may compromise these mothers’ ability to parent, thereby placing their children at risk of child maltreatment (Bishop & Leadbeater, 1999; Sidebotham, Golding, & Team, 2001).

In addition to individual and environmental stressors, drug abuse has been hypothesized to exert both direct and indirect effects on parenting (Mayes & Truman, 2002). The direct physiological effects of drug use may result in cognitive impairments such as limited focus on social cues, distorted perceptual processes, and other social information processing biases (e.g., attributing negative intent to the child’s behavior), as well as physiological and emotional arousal (Miller, Maguin, & Downs, 1997). These cognitive impairments and increased arousal may influence the mother’s ability to parent (Locke & Newcomb, 2004). Furthermore, activities associated with a lifestyle of drug use (e.g., seeking out drugs, stealing, and prostitution) may also impede a mother’s ability to provide adequate parenting (Hutchins & DiPietro, 1997).

Parenting is comprised of a complex combination of knowledge, skills, and attitudes (Benjet, Azar, & Kuersten-Hogan, 2003; Budd, 2001). As a result, recognizing how different facets of parenting function independently and collectively is important for understanding the risk of maternal drug abuse for the child. Peterson et al. (2003) proposed a model of parenting for the prevention of child maltreatment (Figure 1). In this model, parenting adaptive behaviors (Domain 1) refer to those skills necessary to elicit compliance from the child and are assessed as type and frequency of gentle and harsh disciplinary practices. These parenting adaptive behaviors are influenced by the developmental awareness (Domain 2) of how a child’s behavior can be managed best given his or her developmental functioning. This developmental awareness is jointly affected by the mother’s beliefs and appropriate developmental expectations about her child’s behavior (Domain 3) as well as by the mother’s affect (Domain 4), especially anger and frustration with the child. If a mother does not experience improvement in Domains 1–4, she will find it challenging to accept her role as a parent (Domain 5), to be a nurturing caregiver (Domain 6), and to feel efficacious as a parent (Domain 7). The empirical basis for each domain associated with maternal drug abuse is reviewed.

Parenting Adaptive Behaviors

According to both self-reports and direct observation measures, mothers who abuse drugs have different adaptive parenting behavior (Domain 1) than mothers who do not abuse drugs (see Johnson, 2001, for a review of literature). Most studies in the literature focus on mothers interacting with their infants or toddlers (6 weeks to 3 years) who were exposed in utero to either cocaine (Black, Schuler, & Nair, 1993; Blackwell, Kirkhart, Schmitt, & Kaiser, 1998; Hagan & Myers, 1997; Johnson et al., 2002; Mayes et al., 1997; Ukeje, Bendersky, & Lewis, 2001) or methadone (Bernstein, Jeremy, Hans, & Marcus, 1984; Hans, Bernstein, & Henson, 1999). When interacting with their infants and toddlers, mothers who had used drugs during pregnancy were less responsive to and less encouraging of their children (Bernstein et al., 1984; Hans et al., 1999; Howard, Beckwith, Espinosa, & Tyler, 1995; Molitor, Mayes, & Ward, 2003), exhibited harsh negativity (Hans et al., 1999), and were more hostile and intrusive (Johnson et al., 2002) than mothers who had not used drugs during pregnancy. They also
issued fewer requests and more commands, threats, provocations, and disapproving statements (Bauman & Dougherty, 1983), engaged in fewer interactions with and attended less to their children (Mayes et al., 1997), and exhibited less optimal play (Rodning, Beckwith, & Howard, 1991). Similarly, data from parenting self-report measures reflect the findings of studies that employed direct observation of mother–child interaction. Mothers enrolled in methadone maintenance programs reported a lack of involvement and initiative with their children (Suchman & Luthar, 2000), whereas mothers using crack cocaine reported that they yelled more and ignored their preschool children more often (Eiden, Peterson, & Coleman, 1999) and used harsher punishment (Hien & Honeyman, 2003) than mothers who did not use drugs.

Not all studies, however, have documented differences in mother–child interactions between mothers who use and do not use drugs during pregnancy (Hans et al., 1999; Ukeje et al., 2001). According to one study, mothers who used cocaine during pregnancy and mothers who did not use cocaine did not differ in the extent to which they monitored their children visually, structured and guided their children’s behavior, and exhibited warmth or negative feelings in their interactions with their 12-month-old infants (Ukeje et al., 2001). Similarly, mothers prescribed methadone during pregnancy and mothers who did not use drugs did not differ in the amount of encouragement and guidance they provided to their 6-month-old infants (Hans et al., 1999).

One possible explanation for these conflicting results is that the maternal interactions with infants and toddlers exposed to drugs might be a function of their current drug use as much as or more than prenatal drug use. Research addressing this issue yields conflicting results. Mothers who used drugs during pregnancy and had completed drug treatment were observed to interact similarly with their toddlers as mothers and toddlers in which the child had not been exposed to drugs in utero (Hagan & Myers, 1997). In contrast, mothers who had used cocaine during pregnancy were rated to be less responsive and fostering less cognitive and emotional growth when interacting with their infants regardless of whether or not the mother had begun to use drugs again within 4 months of giving birth (Blackwell et al., 1998). Differentiating past and current drug use may have important implications for understanding the relationship between drug use and parenting.

**Developmental Awareness**

The author is unaware of any literature investigating the maternal drug user’s knowledge of developmentally appropriate interventions.

**Maternal Beliefs**

Preliminary investigations of maternal beliefs about parenting and developmentally appropriate expectations for her children have yielded contradictory results (Domain 3 in Figure 1). Maternal drug abuse is associated with overestimation of infant physical development.
(Seagull et al., 1996). However, compared to mothers who do not use drugs, mothers enrolled in methadone maintenance programs responded in a manner similar to items contained in the Parental Attitudes Questionnaire (Bauman & Dougherty, 1983), and polydrug cocaine-using mothers expressed similar maternal beliefs about caregiving on the Parental Values for Children Scale (Eiden et al., 1999). Moreover, mothers admitted to a residential, gender-specific substance-abuse treatment program responded in the normal range for expectations of children on the Adult–Adolescent Parenting Inventory (Camp & Finkelstein, 1997). One possible explanation for these conflicting results is the use of assessment instruments that inadequately or incompletely capture the maternal beliefs hypothesized to influence developmental awareness and adaptive parenting behavior. Peterson et al. (2003) proposed the Parental Opinion Questionnaire as a possible instrument to assess maternal beliefs (Domain 3).

Maternal Affect

Recent research on parenting stress, depression, and coping style among mothers who use drugs have begun to address the influence of maternal affect on parenting behavior. Parenting stress stems from child characteristics, parent characteristics, and life-event stressors (Abidin, 1995); therefore, it is not surprising that mothers who abuse drugs are more likely to report parenting stress than mothers who do not abuse drugs (Kelley, 1998; Suchman & Luthar, 2000). The parenting stress levels of mothers admitted to residential drug treatment are severe stress similar to that experienced by mothers at risk of child abuse (Conners, Bradley, Whiteside-Mansell, & Crone, 2001; Killeen & Brady, 2000).

Depression may also influence parenting. Mothers identifying negative moods are likely to be critical and rejecting of their children (Lyons-Ruth, Wolfe, & Lyubchik, 2000). Higher prenatal levels of depression in pregnant women abusing cocaine are associated with less sensitive caregiving of their 6-month-old infants only if the depression had not remitted after delivery (Beckwith, Howard, Espinosa, & Tyler, 1999; Espinosa, Beckwith, Howard, Tyler, & Swason, 2001).

Moreover, coping style influences maternal behavior. Among mothers using cocaine, frequent use of avoidance coping is associated with harsh punishment toward their children (Hien & Honeyman, 2003). Furthermore, coping style may influence emotion regulation among women who use cocaine (Hien & Miele, 2003), and antisocial personality disorder is related to differences in the capacity to regulate emotional experiences in women who use cocaine (Litt, Hien, & Levin, 2003). Therefore, coping styles and/or regulation of emotion may be important processes in explaining parenting behavior of mothers who use drugs.

Parental Role and Nurturing Caregiver

Mothers who abuse drugs are resolute in their role as parent (Baker & Carson, 1999) and frequently engage in activities that attempt to minimize the harm their drug use will have on their children (Richter & Bammer, 2000). However, research on parental problem solving (Domain 5) and the extent to which mothers adopt a positive nurturing role as opposed to a negative controlling role (Domain 6) is limited. Mothers of 2-week-old infants prenatally exposed to cocaine exhibited levels of nurturance and child-centered parenting similar to those of nondrug-abusing mothers (Black et al., 1993); nonetheless, mothers admitted to residential drug treatment had deficient levels of empathic awareness of children's needs (Camp & Finkelstein, 1997). These contradictory findings might be explained by different assessment methodology used (e.g., observation vs. self-report) and/or the age of the child. Infants in the Black et al. study were only 2 weeks old, which could explain the limited range of infant behaviors to which the mother could respond.

Self-Efficacy as Parent

Mothers who abuse drugs are concerned about their children. They often seek drug treatment because of parenting issues, including fear of losing custody of their children, concerns about how drug treatment will affect child custody, and a desire to retain their status as parent (Collins, Grella, & Hser, 2003; Davis, 1994; Laken & Ager, 1996; Moise, Reed, & Conell, 1981). Still, it is unclear how they perceive themselves as parents. Although mothers admitted to residential drug treatment completed the Parenting Sense of Competence Scale (Wobie, Eyler, Conlon, Clark, & Behnke, 1997), these results are difficult to interpret because the instrument has no norms (Feindler, Rathus, & Silver, 2003).

Summary

Research provides only preliminary support for aspects of the Peterson et al. (2003) model of parenting behavior for mothers who abuse drugs. These mothers exhibit deficits in parenting adaptive behavior that may be influenced.
by maternal affect. Although research thus far indicates that maternal beliefs and the role of drug-using mothers are similar to those of nondrug-using mothers, more research using well-controlled designs is needed to evaluate adaptive parenting behavior, to investigate aspects of the model that have not been researched (e.g., developmental awareness, parental problem solving, and parental self-efficacy), to expand research to children older than infants and toddlers, and to identify other factors that influence parenting behavior in mothers who abuse drugs.

Because environmental stress and/or psychiatric problems are prevalent among mothers who use drugs, these factors may exert more of an influence on parenting than drug use (Bernstein et al., 1984; Hans et al., 1999; Suchman & Luthar, 2000). In a sample of pregnant drug users, harsh parenting and parenting stress were directly related to the number of environmental risk factors experienced (Nair, Schuler, Black, Kettinger, & Harrington, 2003), whereas for mothers taking methadone while pregnant, personality disorders (i.e., antisocial, borderline, and histrionic) mediated the relationship between drug use and insensitive and harsh parenting behavior (Hans et al., 1999). Moreover, these personality disorders were directly related to children’s reports of maternal rejection (Hans et al., 1999). Similar results were obtained in a study of mothers receiving methadone for heroin dependence (Suchman & Luthar, 2001). In that study, socioeconomic status and maternal psychological dysfunction influenced parenting stress, which in turn influenced maladaptive parenting (Suchman & Luthar, 2001). These findings suggest that one additional avenue for future research is the identification of those aspects of psychological functioning, environmental factors, and social support that influence different facets of parenting in this population. In conclusion, drug abuse appears to be a risk factor for parenting deficits; therefore, drug treatment for mothers provides the ideal opportunity to assess and change these parenting skills and behaviors.

Interventions for Mothers Who Abuse Drugs

The increase in cocaine use by pregnant women in the 1980s was a major impetus for establishing federal funding for gender-specific demonstration treatment models for substance dependent women who were pregnant and/or parenting (Finkelstein, 1993; Kaltenbach & Finnegan, 1998; Moras, 1998). Many of these treatment approaches focus on combining substance-abuse treatment with other intervention components to address the needs of mothers (Uziel-Miller & Lyons, 2000). These components include parenting education, transportation and/or childcare, housing, mental health counseling (e.g., trauma-focused therapy), and vocational assessment and training (McKay, Gutman, McLellan, Lynch, & Ketterlinus, 2003; Uziel-Miller & Lyons, 2000). A recent evaluation of 1,181 clients receiving services from 32 pregnant and postpartum women demonstration projects revealed high rates of both treatment completion and drug abstinence (61% of clients reported being drug and alcohol free at 6-month follow-up) and decreased involvement with child protection services (Porowski, Burgdorf, & Herrell, 2004).

Despite the promising results from these demonstration model treatment programs, the interpretation of these results must be tempered because of several methodological limitations. First, the use of quasi-experimental research designs is associated with threats to internal validity (e.g., history). For example, mothers and children receiving residential care in a group might improve their behaviors without formal intervention simply by virtue of the passage of time or social support. Second, outcome data were gathered from self-report measures that were often administered by the treatment program staff. Therefore, these data might reflect social desirability, good subject, and/or experimenter expectancy effects (Rosnow & Rosenthal, 2002). Third, because the decision to remove and/or reunite a child with his or her mother is partially based on the reports of maternal treatment attendance, compliance with treatment recommendations, and/or drug abstinence (Smith, 2003), the use of child protection data as a parenting outcome measure is problematic.

Although there are several well-controlled studies demonstrating the effectiveness of interventions for drug use in pregnant women (Elk, Mangus, Rhoades, Andres, & Grabowski, 1998; Jones, Haug, Stitzer, & Svikis, 2000) and mothers (Silverman et al., 2002; Silverman, Svikis, Robles, Stitzer, & Bigelow, 2001; Volpicelli, Markman, Monterosso, Filing, & O’Brien, 2000), this review is limited to results of randomized controlled studies of interventions for drug-using mothers that assess both substance use and parenting outcomes. Table 1 summarizes specific information about these studies.

Interventions for Postpartum Mothers Who Used Drugs while Pregnant

Several studies have investigated home visitation interventions for postpartum women who used cocaine and/or heroin while pregnant. In one investigation, mothers...
were enrolled in the study at or near the delivery of their child and were randomly assigned to receive either home visits biweekly from a nurse for the first 18 months after the child was born or no home visits (Black et al., 1994). All children received primary care in a multidisciplinary hospital clinic. The intervention was designed to provide maternal support and to promote parenting, child development, and utilization of informal and formal (e.g., housing) resources. Drug treatment was encouraged but was not required during the study. In comparison with mothers assigned to the control group, mothers receiving the intervention were emotionally more responsive to their infants. Mothers in both groups reported more normative parenting attitudes, but more child-related stress at 18 months postpartum than at baseline. There were no differences between groups in self-reported drug use.

In a follow-up study, women who used cocaine and/or heroin while pregnant and their infants were randomly assigned to the intervention group, which

<table>
<thead>
<tr>
<th>Author</th>
<th>Population</th>
<th>Intervention</th>
<th>Comparison group</th>
<th>Substance use outcomes</th>
<th>Parenting outcomes</th>
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<tbody>
<tr>
<td>Black et al. (1994)</td>
<td>60 women using heroin and/or cocaine recruited prenatally</td>
<td>Home visitation biweekly for 18 months postpartum + primary care</td>
<td>Primary care in specialized clinic</td>
<td>Difference between groups not significant, ( p = .059 )</td>
<td>Intervention &gt; control on responsibility and stimulation at 18 months; both groups improved on CAPI; increased parental stress over time in both groups</td>
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<tr>
<td>Schuler et al. (2000, 2002)</td>
<td>171 women using heroin and/or cocaine recruited prenatally</td>
<td>Home visitation weekly for 6 months, then biweekly 6–18 months postpartum</td>
<td>Monthly checks in home</td>
<td>No difference in cocaine and/or heroin, alcohol, or marijuana use at 6 and 18 months</td>
<td>At 6 months postpartum, no differences in maternal responsiveness or infant warmth; at 18 months, no differences in maternal competence, child responsivity, and CAPI rigidity score</td>
</tr>
<tr>
<td>Field et al. (1998)</td>
<td>126 mothers (ages 16–21) had not completed high school; used cocaine, heroin, and marijuana while pregnant</td>
<td>4-month intervention at school; drug and social rehabilitation, parenting, vocational, relaxation</td>
<td>Control group and non drug using comparison group</td>
<td>Intervention group used drugs less than drug-using control group</td>
<td>At 3 and 6 months postpartum, drug intervention group = nondrug group &gt; drug control group on interaction ratings; intervention group had fewer repeat pregnancies at 12 months</td>
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<tr>
<td>Luthar and Suchman (2000)</td>
<td>61 mothers at methadone clinics reporting parenting problems with at least one child &lt;16 years</td>
<td>24-week Relational Psychotherapy Mothers’ Group and standard methadone</td>
<td>Standard methadone</td>
<td>Heroin use decreased for intervention group, increased for control group; cocaine use decreased for both groups but no group difference</td>
<td>Intervention &gt; control on maltreatment scores; affective interactions, parental satisfaction posttreatment and 6 months; no differences on instrumental behaviors, limit setting or autonomy</td>
</tr>
<tr>
<td>Catalano et al. (1999)</td>
<td>144 parents at methadone clinics with at least one child 3–14 years old</td>
<td>Focus on Families: 53 hr of training in small groups of 6–10 families and standard methadone</td>
<td>Standard methadone</td>
<td>At 12-month follow-up, intervention group less likely to report using cocaine</td>
<td>Intervention reported improved problem-solving in drug-related role plays and more household rules at 12 months; no difference between groups in problem-solving in nondrug-related situations</td>
</tr>
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CAPI = Child Abuse Potential Inventory.
received home visits weekly by trained paraprofessionals for the first 6 months postpartum and then biweekly from 6 to 18 months, or to the control group, which received monthly brief home tracking visits (Schuler, Nair, & Black, 2002; Schuler, Nair, Black, & Kettinger, 2000). Mothers in the two groups did not differ in observed maternal competence and reported maternal rigidity at 6 months (Schuler et al., 2000) and at 18 months postpartum (Schuler et al., 2002). Infants whose mothers received the intervention were not more responsive than infants whose mothers did not receive the intervention at 6 months (Schuler et al., 2000) and at 18 months (Schuler et al., 2002). Again, there were no differences in reported drug use between mothers in the intervention and control groups at 6 months (Schuler et al., 2000) and at 18 months (Schuler et al., 2002). The intervention was not successful in increasing drug abstinence; hence, many mothers in these studies continued to use drugs. Regardless of group assignment, mothers who continued to use drugs were less competent when playing with their children than mothers who had stopped using drugs (Schuler et al., 2000, 2002).

The results of the studies using home visitation interventions for mothers who used drugs during pregnancy are not encouraging. There were no statistically significant differences between the intervention and control groups for most parenting measures (i.e., only emotional responsiveness and only in one study) and all drug-abuse measures (Black et al., 1994; Schuler et al., 2000, 2002).

In contrast, Field et al. (1998) demonstrated success in improved parenting and decreased drug use in young mothers (16–21 years) who used drugs during pregnancy. The school-based, comprehensive treatment package consisted of educational and vocational training, parenting education, drug rehabilitation, and on-site daycare services. Mothers who received the intervention improved in parenting adaptive behaviors (Domain 1 in Figure 1) by engaging in less anger or poking and more play with their infants at 3 and 6 months than mothers assigned to the control group. The intervention mothers were less likely to become pregnant and were more likely to continue school or obtain a job than mothers in the control group. Moreover, mothers who received the intervention used drugs less often than mothers in the control group. There are several reasons why this intervention may have been successful: (1) the intervention occurred in the context of an existing community of support (i.e., school); (2) all components of the intervention were on-site; (3) the participants were young; therefore, their drug use may not have been as severe as that of older mothers; and (4) the intervention consisted of multiple components, including 6 months of education and vocational counseling in which mothers were paid minimum wage for being teacher aide trainees in a nursery day care.

**Interventions for Mothers Enrolled in Methadone Maintenance**

Two studies have demonstrated the efficacy of parenting and drug use interventions for parents receiving methadone maintenance (Catalano, Gainey, Fleming, Haggerty, & Johnson, 1999; Luthar & Suchman, 2000). Luthar and Suchman compared standard methadone maintenance with methadone maintenance combined with a 24-week relational psychotherapy group for mothers who were primarily heroin dependent. The goal of the relational psychotherapy group is to facilitate improvements in parenting skills within the context of supportive psychotherapeutic experiences using insight-oriented therapy. Half the sessions focused on mothers’ individual functioning, and the other half focused on specific parenting issues. When compared with mothers in standard methadone treatment for heroin dependence, mothers in the relational psychotherapy group had lower maltreatment risk, enhanced feelings of parental satisfaction, improved affective interactions with their children (i.e., communication and involvement), and decreased heroin use but not decreased cocaine use. There were no differences noted in limit setting and autonomy.

There are few well-controlled studies of parenting interventions for mothers who use drugs, so a study in which 75% of participants were mothers is included in this review (Catalano et al., 1999). Parents were randomly assigned to methadone maintenance alone or methadone maintenance combined with behavioral parent training (i.e., Focus on Families). The Focus on Families intervention is delivered in small groups and involves training parents how to teach their children to refuse drugs, home-based case management to reinforce skills learned in the groups, and individualized relapse prevention for the parents. When compared with parents receiving standard methadone maintenance alone, parents receiving behavioral parent training reported instituting more household rules, less family conflict, and increased abstinence of cocaine, but not heroin.

In summary, both the Relational Psychotherapy Mothers’ Group (Luthar & Suchman, 2000) and the Focus on Families (Catalano et al., 1999) interventions resulted in improvements in parenting adaptive behavior (Domain 1 in Figure 1), whereas the Relational Psychotherapy...
Group resulted in improvements in the mother role (Domain 5) and parenting self-efficacy (Domain 6). The results for substance use were conflicting; Luthar and Suchman reported decreased heroin use but not cocaine use, whereas Catalano et al. reported decreased cocaine use but not heroin use. An explanation for these conflicting results regarding drug use is difficult to discern, and clearly more research is needed.

**Maternal Substance Abuse and Child Maltreatment**

Many mothers who use drugs are also involved with child protection services. Parental substance abuse is a factor in 16–61% of cases referred to child protection and is a primary factor in 2–44% of these cases (Young, Gardner, Whitaker, & Yeh, 2004). A recent national evaluation of drug treatment programs for pregnant and parenting women revealed that 47% of mothers had at least one child removed from their care by child protection services (Porowski et al., 2004). The need for integration between the substance-abuse and child welfare fields is clear.

In addressing the needs of these mothers, the substance-abuse and child welfare fields have achieved different levels of collaboration. Although the substance-abuse field has begun to design gender-specific drug treatments that address parenting issues (Camp & Finkelstein, 1997; Luthar & Walsh, 1995), these interventions are not specifically designed for mothers involved with child protection services. Likewise, the child welfare field has begun to develop model programs for mothers who use drugs and who are involved with child protection services (Young, 2004). These programs involve joint assessment by a child welfare worker and a certified drug and alcohol counselor, a substance-abuse counselor stationed in local child welfare offices, multidisciplinary teams for joint case planning, recovering individuals acting as advocates for parents, child welfare workers trained to screen for drug-abuse problems, and family treatment courts (Young, 2004). Ideally, this increased personal collaboration between drug-abuse counselors and child welfare workers will result in more comprehensive family treatment plans.

Although there are no well-controlled studies evaluating the effectiveness of intervention programs for mothers who use drugs and abuse their children, at least two programs have been described in the literature (Dore & Doris, 1998; Marsh, D’Aunno, & Smith, 2000). In one program, mothers received a multicomponent intervention consisting of referral to drug treatment programs, mentoring by older adults in the community, developmental day care and respite care, parenting education, transportation, food, and clothing (Dore & Doris, 1998). Forty-one percent of the mothers enrolled in the program were able to complete treatment and remain abstinent for 12 months, whereas another 41% of those entering the program either refused addiction treatment or dropped out of the study before completing treatment. Mothers who utilized the childcare component of the program were three times more likely to complete addiction treatment. In a second program, mechanisms to increase access to drug treatment (e.g., transportation, childcare, and outreach services) were provided to mothers in an enhanced program group (Marsh et al., 2000). Mothers who participated in the enhanced program were less likely to use drugs and more likely to utilize supplemental social services than mothers receiving standard substance-abuse treatment. The results of both of these studies suggest that increasing access to treatment services is an important intervention component for mothers who use drugs and maltreat their children.

The child protection field is beginning to interface with the substance-abuse field to meet the needs of mothers who use drugs and also maltreat their children. Reciprocally, the substance-abuse field has begun to address the gender-specific needs of women who use drugs, of which one need is parenting. Although each field aspires to collaborate with the other, barriers to collaboration still remain.

**Opportunities to Improve Outcomes for Mothers Who Use Drugs and Maltreat Children**

An early first opportunity for improved outcomes is recognizing the differing timelines for substance-abuse treatment and child protection decisions (Young, 2004). Owing to a concern that too many children were languishing for years in foster care, the Adoption and Safe Families Act of 1997 (ASFA) specified that parental rights be terminated when a child is in the custody of the state 15 out of 22 months. The ASFA guidelines take for granted that effective interventions would be delivered in a timely manner. Because drug abstinence is considered to be a prerequisite for reunification of a drug-using mother and her child (Mejta & Lavin, 1996), many child welfare workers refer these mothers for drug treatment as an initial step (Maluccio & Ainsworth, 2003).
There are several potential obstacles in using substance-abuse treatment as the foundation of the child welfare treatment plan. First, substance-abuse treatment programs may not be accessible quickly enough nor have adequate services to adhere to ASFA guidelines for timeliness (McLellan, Carise, & Kleber, 2003). Second, utilizing substance-abuse treatment as a primary component in the child protection case plan presupposes that drug treatment is effective at increasing and maintaining abstinence. Long-term abstinence (i.e., 6–12 months in duration) is not likely for those individuals who receive less than 3 months of treatment for cocaine dependence or less than 12 months of methadone maintenance for opioid dependence (Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997; Simpson, Joe, & Rowan-Szal, 1997). Furthermore, 60–75% of women who enter drug treatment leave before treatment is completed (Comfort, Sockloff, Loverro, & Kaltenbach, 2003; Scott-Lennox, Rose, Bohlig, & Lennox, 2000; Siqueland et al., 2002). To further complicate the situation, 40–60% of drug-abuse treatment patients relapse to drug use within 1 year following treatment discharge (Simpson, Joe, Fletcher, Hubbard, & Anglin, 1999). With these statistics showing less-than-optimal effectiveness of drug treatment, substance abuse has been conceptualized as a chronic illness requiring the same type of ongoing assessment, monitoring, and treatment as those required to manage medical conditions such as heart disease or diabetes (McLellan, O’Brien, Lewis, & Kleber, 2000). In light of this, it may be unrealistic to expect drug treatment to be effective within the time frame specified by ASFA guidelines. Third, prioritizing substance-abuse treatment in the child welfare case plan assumes implicitly that drug abstinence, if it is achieved and maintained, will be associated with improved parenting. Although there is preliminary evidence suggesting that this may be true (Blackwell et al., 1998; Hagan & Myers, 1997), more well-controlled research is required.

In the substance-abuse field, most treatment programs deliver interventions to the individual substance abuser, with less concern for the family (Howell & Chasnoff, 1999). This practice may stem from how services are reimbursed. Across systems of service, including family therapy, services are delivered to an individual client (Patterson & Lusterman, 1996). As a result, unless services are paid for under contracts between agencies or as bundled services, third-party payers reimburse providers for delivering services to benefit an individual (Patterson & Lusterman, 1996). Unfortunately, parenting interventions are not likely to be integrated into the drug treatment system as long as the mother’s role as parent continues to be overlooked as being important for her own welfare as well as for that of her child.

In summary, children of mothers who use drugs are caught at the crossroad of the conflicting timelines between the ASFA guidelines for reunification and the chronic, relapsing nature of substance abuse. The resulting tension between the long-term needs of the child (i.e., child protection) and the short-term needs of the mother (i.e., substance-abuse treatment) will continue. Given the chronic nature of substance abuse and the high rate of drug treatment attrition and relapse, many children of drug-abusing mothers may fare better in stable, well-functioning families than with their birthmothers.

**Indicators of Successful Outcomes**

According to ASFA guidelines, documenting compliance with a child protection treatment plan is critical in determining whether to reunify a mother with her child or to permanently terminate her parental rights; therefore, the outcome of substance-abuse treatment is an important indicator of success (Olsen, Allen, & Azzi-Lessing, 1996). As a result, a key task in complying with the child welfare case plan is identification of the essential behaviors (e.g., drug-related behaviors and parenting) that must be changed, the length of time each target behavior must be demonstrated before it is considered to be a “stable” behavior change, and how best to assess each behavior in a valid, reliable, and cost-effective manner. Drug abstinence assessed via urine testing is often the ultimate outcome of drug treatment (Prendergast, Podus, Chang, & Urada, 2002), but the optimal frequency and duration of urine testing is still undetermined. Although addiction treatment programs measure treatment success as absolute drug abstinence (Prendergast et al., 2002), in practice, child protection agencies often reunify mothers and children when the mother has regularly attended drug treatment regardless of whether her parenting behavior has changed or even has been assessed (Dore & Lee, 1999; McAlphine, Marshall, & Doran, 2001; Smith, 2003).

**Legal Implications of Seeking Help**

Another opportunity to collaborate effectively stems from the legal implications of seeking assistance from either system. Many women seek addiction treatment because they are concerned that their substance abuse is affecting their children (Howell & Chasnoff, 1999). Paradoxically, requesting help for their substance-abuse problem may put them at risk of being separated from
their children because some states require that parents using substances, especially those women who are pregnant, be reported to child protection services (Birch, 2003; Chavkin, Wise, & Elman, 1998). Although the legal consequences might keep drug-using mothers away from treatment, once they are formally identified to either the criminal justice or child protective services, they are likely to enroll (Haller, Miles, & Dawson, 2003; Knight, Logan, & Simpson, 2001) and remain in drug treatment (Green, Polen, Dickinson, Lynch, & Bennett, 2002; Kissin, Svikis, Morgan, & Haug, 2001). However, the motivational success of external pressures may depend on whether or not the mother continues to reside with her children, as well as on the number of children she has. Mothers residing with their children are more likely to enter (Lundgren, Schilling, Fitzgerald, Davis, & Amodeo, 2003) and remain in drug treatment (Nishimoto & Roberts, 2001) but may be less likely to complete the treatment (Scott-Lennox et al., 2000) than mothers not residing with their children. Interestingly, African-American women who have lost custody of their children are more likely to complete drug treatment than African-American women in general or other women who have children in foster care (Scott-Lennox et al., 2000). Studies indicate that the more children a woman has, the less likely she is to seek or stay in treatment (Katz et al., 2001; Knight et al., 2001; McMahon, Winkel, Suchman, & Luthar, 2002), but this relationship is mediated by the woman’s ethnicity, whether or not she is living with a partner, and severity of her drug problem (McMahon et al., 2002).

Identification to a formal system (e.g., child protective services) seems to motivate mothers to enroll and remain in drug treatment long enough for the treatment to be effective. However, the completion of drug treatment may depend on her status regarding custody of her children and the number of children in the family, especially in the context of her ethnicity. Conflicting results suggest that these relationships are complex and require refined research designs to determine how involvement with a formal system impacts treatment outcomes.

**Staff Training**

A discipline-specific approach to staff training provides another opportunity to increase collaboration between the substance-abuse and child welfare fields. Mothers who use drugs and maltreat their children tend to have multiple, chronic needs (Marcenko et al., 2000). As a result, effective interventions require specialized knowledge and skills. Fortunately, in the last few years, child welfare staff are being trained to identify substance-abuse problems in their clients and to assess the risk of maternal substance abuse to the child’s welfare and safety (Maluccio & Ainsworth, 2003). Likewise, substance-abuse counselors are beginning to recognize a need to increase their knowledge of child development and parenting (McKay et al., 2003).

**Agenda for Future Research**

**Parenting Skills**

The parenting skills of mothers who abuse drugs appear to be compromised by drug use (Hogan, 1998), but this conclusion is primarily based on research that uses a direct observation measure of parenting with mothers who used drugs during their pregnancy (who may or may not have stopped using drugs postpartum) in interaction with their infants and toddlers (Johnson, 2001). Furthermore, in many of the studies, the comparison sample of mothers was not matched to the drug-using mothers on key variables that might influence parenting skills (e.g., cognitive functioning, mental health issues, and socioeconomic status). Future research is needed to examine the following: (1) the effect of substance use on a wider variety of parenting skills and attitudes, such as those depicted in the Peterson et al. (2003) model; (2) the effect of drug treatment and drug abstinence on the parenting skills of mothers who use drugs; and (3) the parenting skills of mothers of school-age children and adolescents. From this research, interventions can be designed to target the relevant skills and attitudes that enable mothers who are using or have used drugs to effectively parent children across the developmental spectrum from infancy to adolescence.

**Interventions**

Addressing the drug treatment and parenting needs of mothers who use drugs through multicomponent, gender-specific treatment programs is a major advance in the substance-abuse field (Porowski et al., 2004). Results of studies utilizing well-controlled experimental designs to examine the efficacy of interventions for drug abuse and parenting are promising. Table I reveals wide variability across studies in both substance use and parenting outcomes from no effect on either outcome (Schuler et al., 2000, 2002) to great success in both outcomes (Field et al., 1998). Given the chronic, relapsing nature of drug abuse (McLellan et al., 2000), it is important to establish parameters for the minimal response to drug treatment that establish and maintain adequate parenting skills. The Peterson et al. (2003) parenting model identifies specific parenting behaviors and attitudes that should be...
assessed to determine whether parenting has sufficiently improved to warrant reunification with their children.

There is clearly a need for additional therapy development research to address the needs of mothers who use drugs. Fortunately, there are several models available for addressing multiple needs in this population. For example, Linehan et al. (1999) and Zlotnick, Najavits, Rohsenow, and Johnson (2003) utilized cognitive-behavioral treatment for women with drug-dependence and either borderline personality disorder or posttraumatic stress disorder, respectively. Perhaps existing evidenced-based treatments are an ideal platform from which to build an integrated treatment for drug use and parenting. Interventions based on behavioral principles are efficacious for increasing drug abstinence, treatment attendance, and completion of drug treatment therapeutic goals (Jones, Haug, Silverman, Stitzer, & Svikis, 2001; Petry, Martin, & Finocche, 2001; Silverman et al., 2002). Similarly, parenting interventions based on behavioral principles are efficacious for improving those skills associated with parenting children with a variety of problems, including child abuse (Chronis, Chacko, Fabiano, Wymba, & Pelham, 2004; Kolko, 1996; Lutzer, VanHasselt, Biegelow, Greene, & Kessler, 1998; Serketch & Dumas, 1996; Webster-Stratton, Reid, & Hammond, 2001; Wolfe, 1985). One future direction of research might include the design of a treatment package based on behavioral principles that simultaneously integrates interventions for both drug use and parenting skills. This common, theoretical orientation and research base could be a particularly promising foundation for designing effective collaborative interventions for these parents.

Any design of integrated treatments for substance use and parenting must address the unique needs of the subpopulation of mothers who use drugs and maltreat their children. Thus far, this population continues to be the topic of little research. Furthermore, true integration requires an understanding of how aspects of child protection services (e.g., legally mandated services and retaining custody of child) influence different aspects of treatment (e.g., enrollment, retention, and completion) for these mothers.

Systemic Collaboration and Integration

The ultimate goal of treatment within the context of child welfare is to ensure the safety and protection of children, either by supporting mothers to provide adequate parenting or by documenting mothers’ failure to respond to an empirically supported treatment (DePanfilis & Salus, 2003). At the level of individuals, child protection agencies are training their staff to recognize substance abuse among referred parents and to assess the risk of parental substance abuse to the children (Young & Gardner, 2002). Several demonstration models are piloting different collaborative relationships between substance-abuse and child welfare staff (National Center on Addiction and Substance Abuse, 1999). Sharing information and cross-training staff from each system is a positive and necessary initial step toward collaboration.

The next step requires true integration in the evaluation and delivery of services to families of mothers who use drugs. A typical child welfare plan may include drug treatment, parenting classes, obtaining stable housing, and individual counseling for maternal mental health problems (DePanfilis & Salus, 2003). In practice, mothers are often encouraged to complete all elements of the case plan at once (Feinberg, Aniakudo, & Lapine, 2004). However, it is possible that simultaneous participation in a myriad of interventions from different agencies may increase the practical problems of access to services and/or result in failure because different aspects of the case plan are at odds with each other (Feinberg et al., 2004). Research is needed to address the optimal sequencing and prioritizing of different treatment components listed in a child welfare case plan to maximize positive treatment outcomes.

Policy Implications

The conflicting timelines of ASFA guidelines and the chronic, relapsing nature of drug abuse (McLellan et al., 2000) may require systematic policy analysis. For example, given the need to quickly facilitate and maintain drug abstinence, perhaps an initial step is residential care for both mother and child irrespective of the severity of the mother's drug dependence. Currently, only 20% of all substance-abuse treatment programs are delivered in residential settings (Office of Applied Studies, 1999). These types of modifications in the delivery of services entail modification of policy.

Conclusion

Dr Lizette Peterson and colleagues identified two goals in their 1996 study: (1) to document that child welfare literature may benefit researchers and practitioners in the substance-abuse field and (2) to emphasize that the field of child welfare must learn from and collaborate with substance-abuse researchers to offer effective, holistic treatments. Progress has been made toward increased attention to the unique problems of substance-abusing
women, but Dr Peterson’s call has been far from answered. Specifically, there is a need for more controlled research that combines the empirically supported treatment approaches from each field into an effective intervention that addresses both substance abuse and parenting difficulties. Development of integrated strategies that address both substance abuse and child maltreatment domains could lend itself to interventions along the entire continuum from universal protection to intensive remediation. Dr Lizette Peterson’s aspirations would be well served by such a development.

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