# Links Between Prevention and Treatment for Drug-Abusing Women and Their Children

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## INTRODUCTION

Children of alcohol and other drug abusers are one of the groups at highest risk for later drug abuse and many other mental health and behavioral problems (Deren 1986; Kumpfer and DeMarsh 1985; Kumpfer 1987, pp. 1-71; Johnson and Bennett 1988; Johnson and Leff 1997; Tarter and Mezzich 1992, pp. 149-177). Those problems result in significant personal, social, and economic costs.

The primary purpose of this chapter is to encourage drug abuse treatment and service providers to consider providing preventive therapeutic services for children of drug abusers, including parent training and family skills training. This chapter focuses on both drug-abusing parents and their children because family-focused interventions have been found to improve therapeutic outcomes for both parents and children (Kumpfer and Alvarado 1995, pp. 255-294; Kumpfer et al. 1996, pp. 241-267).

This chapter reviews biological and environmental reasons why children of drug-abusing mothers or parents have a higher risk of becoming drug abusers. Next, the chapter reviews prevention and treatment programs that could be conducted during treatment of drug-abusing women, including both prenatal and postnatal programs. Finally, the chapter recommends areas of research for preventing children's future problems and treating women.

Prevention services for children of drug abusers in schools are limited in their effectiveness by difficulties in locating and targeting services for those children who are at risk (Emshoff and Price 1997; Kumpfer 1997*a*). Therefore, identifying and providing prevention services to such children through drug treatment facilities are appealing. Although there are significant barriers to implementing preventive interventions for children of drug abusers in inpatient or outpatient

drug treatment settings, there are also significant benefits. As discussed by Glider and associates (1996, pp. 32-51), locating and supporting the additional space, staff, and programming to add children's preventive services (i.e., therapeutic child care, children's skills training, and parent or family skills training) within a drug treatment facility not experienced with children's services can be daunting. However, preliminary research evidence suggests that these preventive services for children of drug abusers enhance treatment outcomes for parents in drug treatment by reducing parenting stress and depression and thereby facilitating recovery and reducing the frequency of relapse (Catalano 1996; Catalano et al., in press; Catalano and Hawkins 1985, pp. 157-181; Hughes et al. 1995; DeMarsh and Kumpfer 1985; Kumpfer and DeMarsh 1987; Kumpfer 1991*a*; Kumpfer et al. 1996, pp. 241-267).

One of the earliest research studies on the effects of admitting children to a therapeutic community (Cuskey et al. 1979) found that postdischarge outcomes for women in drug treatment were better than anticipated. Parents tend to stay in drug treatment longer if their children are also receiving services (Stevens et al. 1989). Lewis and colleagues (1996, pp. 110-122) reported greatly improved retention of mothers in treatment once free babysitting services and transportation were provided. For parents, longer stays with their children result in decreased substance abuse and criminal behavior; increased employment; and improved parenting skills, parent-child relationships, and parental self-efficacy and self-concept (Cuskey et al. 1979; Kumpfer 1991*a*).

This chapter discusses the significant overlap of drug abuse treatment and prevention interventions, using as a case example drug-abusing women and their children. Interestingly, the types of cognitive-behavioral skills training or therapy found to be most effective in school-based prevention programs (Botvin et al. 1995) and family-based prevention programs (Kumpfer et al. 1996, pp. 241-267) are similar to the skills training approaches used to treat drug abusers. Research suggests that these interventions are the most effective with the most difficult-to-treat drug-abusing clients—those higher in psychopathology (Kaminer 1994). Thus, staff members trained in cognitive-behavioral methodologies of structured interventions, interactive role-play, guided practice, homework, and rewards for behavioral changes will be prepared to work in either the parent's drug treatment program or the children's

therapeutic child-care program. The similarity of the interventions employed in effective drug treatment programs to those used in children's prevention programs, even applied to general populations in schools, suggests that it is more effective to teach core social skills (i.e., communication, problemsolving, decisionmaking, anger management, stress management, coping with feelings, peer resistance skills, and assertiveness training) early in life to prevent poor life outcomes rather than waiting for risk factors to increase.

## PREVENTION OF DRUG ABUSE IN CHILDREN OF DRUG ABUSERS

Prevention is still a relatively new field and does not have as visible a role in the public health continuum of services as does treatment. Also, there is a misconception that prevention entails an educational approach—and not therapeutic interventions—for clients who are already manifesting precursors of drug abuse such as depression, antisocial personality, aggression, and conduct disorders. However, training and therapeutic interventions for addressing indicated problems (e.g., conduct disorders, aggression, lack of attachment to school or family) in children of drug abusers are preventive interventions for later initiation of drug use and other adjustment problems.

Although many similarities between prevention and treatment could be discussed, this chapter primarily addresses the need to provide selective or indicated prevention services to children of drug-abusing women in treatment. If children are already showing emotional or behavioral difficulties that are identified risk factors for drug abuse, such as aggression, conduct disorders, shyness, and depression (Kellam et al. 1983, pp. 17-42; Kellam et al. 1991; Kumpfer 1987, pp. 1-71), treatment for these psychological disorders is indicated for prevention of later drug abuse. For a more complete description of the new categories of prevention—universal, selective, and indicated—see Mrazek and Haggerty (1994) or Kumpfer et al. 1997*a*.

According to the prevention/treatment/aftercare continuum of services, which was adopted by NIDA and the Institute of Medicine (IOM) (Mrazek and Haggerty 1994) and is based on Gordon's (1987, pp. 20-26) taxonomy:

- *Universal* prevention approaches are designed for the *general population.*
- *Selective* prevention approaches are those designed for *groups at high risk* of later drug use, such as children of substance abusers.
- *Indicated* prevention approaches are designed for children who are definitely *manifesting precursor* behavioral or emotional problems etiologically linked to later drug use.

Thus, for children of drug abusers, prevention approaches that are provided in drug abuse treatment programs can be designed to include the following:

- *Selective* prevention services to all children of drug-abusing women because the children represent a group at high risk for later drug use. Appropriate interventions include therapeutic child care, life skills and social skills training, resiliency-building, and parenting and family relationship enhancement programs that involve children, such as family skills training (Kumpfer et al. 1997*b*; Kumpfer 1994).
- *Indicated* prevention services could be offered only to children who manifest diagnosed or assessed drug precursors, such as conduct disorders, aggression, attention deficit hyperactivity disorder (ADHD), anxiety disorders, depression, and thrill-seeking. Stronger and more enduring therapeutic interventions would be needed to address these childhood psychopathologies. Types of interventions that could be used include individual counseling, play therapy, family therapy, behavior modification, or academic tutoring programs.

Many selective or indicated prevention programs (Mrazek and Haggerty 1994) appear to be treatment for a specific problem, that is, emotional damage from sexual abuse, harm, neglect, discrimination, or other forms of victimization. However, according to the IOM definition of *indicated prevention* (Mrazek and Haggerty 1994), therapeutic interventions for empirically defined risk factors constitute indicated prevention programs if drug abuse has not been initiated. Therefore, there can be a substantial linkage between prevention and treatment, and the distinction can sometimes be difficult to make.

The relationship between prevention and treatment of drug abuse should be apparent. Lack of a preventive environment increases the

likelihood of drug abuse in vulnerable individuals. Children of alcoholics and other drug abusers are the most vulnerable groups for drug abuse (see literature reviews of the research by Kumpfer 1987, pp. 1-71; Kumpfer 1989, pp. 310-371; Kumpfer et al. 1997*a*). Therefore, if children of drug abusers are not included in the treatment process and their therapeutic needs are not addressed during the course of drug treatment for their parents, they remain at increased risk of becoming drug abusers. At some point, intervention must occur in the multigenerational cycle of drug addiction and dysfunctional families. Thus, selective or indicated prevention programs for children of drug abusers are essential during the treatment process. These children need to experience a safe haven during the therapeutic stay where their emotional, physical, mental, and spiritual needs are addressed. If old enough, they should be taught life skills and resiliency skills to help them cope with living with their drug-addicted parent(s). Supportive services, such as therapeutic child care, play therapy, social skills training, parent training and family skills training, and educational tutoring, should be provided onsite or elsewhere for these children.

The most important process is to involve women in parenting skills training and family relationship enhancement programs to promote a continually improving parent-child relationship after treatment. Research suggests that improving maternal parenting skills reduces subsequent behavioral and emotional problems of the children, which leads to reduced drug use by the mothers, even if they are *not* in drug abuse treatment (Kumpfer 1991*a*). This unexpected finding of the Strengthening Families Program (SFP) (Kumpfer et al. 1989), when conducted with drug-abusing women who were not in any type of treatment, suggests that prevention activities aimed at children can have a beneficial therapeutic impact on maternal depression, self-esteem, and drug abuse. Thus, prevention and treatment interventions can be identical in such cases and can improve outcomes for both mothers and children.

## FOCUS ON CHILDREN OF DRUG-ABUSING WOMEN IN TREATMENT

Research suggests that both children of other drug abusers (Kumpfer 1987, pp. 1-71; Tarter and Mezzich 1992, pp. 149-177) and children of alcoholics (Schuckit 1992, pp. 93-108; Zucker and Fitzgerald 1996) are at increased risk for drug abuse. Despite these observations, drug

treatment programs rarely deal with the preventive needs of these highly vulnerable children (Kumpfer 1991*b*, pp. 1033-1060), who tend to have a higher likelihood of manifesting difficult temperament syndrome (Cloninger et al. 1988), conduct disorders, depression, aggression, and anxiety disorders. Of interest is that this "difficult" temperament, as defined by the Chess and Thomas (1984) temperament classification, has also been found to be predictive of more severe tobacco, alcohol, and marijuana use in adulthood (Lerner and Vicary 1984). Treatment programs for women generally do not treat the total family unit or system, preferring to deal only with the drug-abusing mother. Treating the total family unit is critical to any lasting improvements in the family system, whether interventions are considered therapeutic or preventive.

## IMPACT OF IN UTERO EXPOSURE ON CHILDREN

In the past 10 years, the general public has become concerned about drug-exposed infants, but little relationship has been found between prenatal exposure and poor outcomes (Sowder and Burt 1980; Zuckerman 1996, pp. 277-287). Nevertheless, some researchers speculate that adverse effects may not emerge until children are older (Fried 1996, pp. 242-260; Spear 1996, pp. 125-145). Research suggests that postnatal support of the mother, quality of the home environment, and the mother's responsiveness to the child's needs may be more critical than the prenatal exposure (Johnson et al. 1990; Hans 1994; Hans 1996, pp. 261-276).

Some in utero effects of drug exposure are similar to the characteristics of difficult temperament syndrome that appear to be genetically caused (Kumpfer and Bayes 1995, p. 1861). Zuckerman (1996, pp. 277-287), for example, speculates that deficits in control of autonomic regulation and arousal may underlie observed hyperresponsivity or hyposensitivity to stimuli and result in learning and behavior problems that would make a child more difficult to parent successfully and increase the child's vulnerability to drug abuse. For these reasons, early therapeutic parenting supported by parent training and family skills training and therapeutic child care are important prevention interventions for drug-exposed children.

## FAMILY ENVIRONMENTAL ETIOLOGICAL FACTORS

Most research (see Wetherington et al. 1996 for a review) suggests that the home environment and maternal characteristics are more powerful in shaping child development than is exposure to drugs. Family characteristics and functioning are important predictors of outcomes in children of substance abusers (Kaltenbach 1996, pp. 230-241). Family environmental risk factors associated with lack of nurturance, discipline, and supervision of children by drug-abusing mothers have been summarized by Bayes (1990), Kumpfer (1987, pp. 1-71), Kumpfer and Alvarado (1995, pp. 255-294), and Johnson and Leff (1997) and include:

- Poor parenting and family relationships (Kumpfer et al. 1997*a*)
- Maternal mental illness (Brady et al. 1993)
- Reduced positive play time for maternal-child attachment (Kumpfer and DeMarsh 1985)
- Increased child and maternal physical illness (Amaro et al. 1989; Chasnoff 1988)
- Increased criminal involvement (Bayes 1990) resulting in loss of child custody (Howard and Beckwith 1996, pp. 68-86)
- Diversion of family resources
- Increased child abuse and neglect (Kumpfer and Bayes 1995, p. 1861)

## LINKING PREVENTION AND TREATMENT PROGRAMS: WHAT CAN BE DONE?

Failure to invest early in children at high risk for drug abuse could result in paying for special services throughout their lives. Children of drug abusers are overrepresented in almost every type of special needs population (e.g., abused and neglected children, sexually abused children, hyperactive children, conduct-disordered and delinquent children, mentally disordered children, special education children, and drug-abusing youth) (Kumpfer 1987, pp. 1-71).

Preventive activities that focus on women of childbearing age are also effective strategies for ensuring positive outcomes for their children. Preventive approaches should also include public education, prevention,

treatment, rehabilitation, and compensatory social support strategies (e.g., parenting, support groups, job training, medical services, housing, and legal services) for mothers.

Recommended preventive strategies for drug-abusing mothers that reduce negative outcomes in children include the following:

- Maternal drug education concerning potential harm to infants by the use of licit or illicit drugs during pregnancy. See Arkin and Funkhouser (1990) or Donohew and colleagues (1991) for ways to create effective public media campaigns.
- Pregnancy prevention for drug-abusing and women at high risk would help solve the problem of drug-exposed children through increased sex education in schools and in the media, public health clinic funding of birth control, pregnancy prevention classes for men and women, and drug treatment clinics.
- Incentives to increase recruitment of drug-abusing women and children. "If you build it, they will come" does not always apply to treatment programs for drug-abusing mothers (Rahdert 1996, pp. 1-4). Successful approaches include aggressive and culturally sensitive outreach coupled with intensive, comprehensive medical and psychological services and practical basic support services to address the multiple needs of these hard-to-reach women and their children (Kumpfer 1991*a*; LaFazia et al. 1996, pp. 52-67).
- Recruitment of pregnant drug-abusing women. Few drug treatment agencies want to treat pregnant women because of concerns about legal liabilities, particularly for those women who inject drugs and are infected with the human immunodeficiency virus (HIV) (Lewis et al. 1996, pp. 110-122). Successful strategies in the NIDA Perinatal-20 research study (Rahdert 1996, pp. 1-4) included (1) free or low-cost treatment services, (2) free or low-cost child care, (3) transportation, (4) food, (5) a caring and competent staff, and (6) support for basic needs or crises, including housing issues.

## TREATMENT OF DRUG-ABUSING WOMEN AND THEIR CHILDREN

Pregnancy is a good time to encourage women to seek drug treatment because many drug-using women will consider stopping or reducing use for the sake of the baby. Lewis and colleagues (1996, pp. 110-122) recommend that programs recruit pregnant addicts into treatment as early as possible, when motivation to remain drug-free through the rest of the pregnancy is greater. In a longitudinal study of 100 female heroin addicts, ethnographers Rosenbaum and Murphy (1990, pp. 120-127) found that most women want to stop their addiction when they become pregnant accidentally. They generally want to "clean up" to avoid having an addicted baby (Rosenbaum and Murphy 1990, pp. 120-127). The threat of losing custody of children to protective services or having them permanently placed in foster care is another major motivating factor for women to enter treatment and "dry out" (Rosenbaum 1981). Unfortunately, Howard and Beckwith (1996, pp. 68-86) noted that once the court makes a ruling regarding child custody, the woman may drop out of treatment because of lack of motivation.

The availability of publicly funded alcohol and other drug treatment facilities for drug-using women and their children does not match the need for such facilities. Until several years ago, there were only a few residential treatment facilities that would allow a woman to bring her children to the facility. With increased funding earmarked for women's substance abuse treatment programs involving children from the Center for Substance Abuse Prevention and the Center for Substance Abuse Treatment, the number of such facilities has grown. Unfortunately, all but a few of these programs are built on the Minnesota male model rather than on a family systems or women-in-relations model (Finkelstein 1990; Miller 1986), and they often separate the child from the mother. The philosophy is that the mother needs to focus on her own recovery. Unfortunately, in the process, the author has found that some children feel neglected and become bitter about the special attention the mother is receiving. The children are in as much need of therapy as the mother and should not be overlooked by the treatment staff.

## PARENTING AND FAMILY INTERVENTIONS

Some outpatient drug treatment facilities, including methadone maintenance programs, have included parent training, family therapy, and children's therapy or skills training in their programming. Both the 14-session (3 hours held once per week) SFP (Kumpfer and DeMarsh 1985; Kumpfer et al. 1996, pp. 241-267; Kumpfer et al. 1997*a*) and the Focus on Families Program (Bry et al., in press; Catalano et al., in press; Haggerty et al. 1991) have been funded by NIDA for implementation with drug-abusing parents in treatment. The Focus on Families Program begins with an intensive family retreat and continues for 33 sessions. Although the program is intense and promising, it does not include much parent-child time together in skills training but rather focuses on relapse prevention with the parents. Although the evaluation for the Focus on Families Program has not been completed, SFP has been tested in several replications by independent researchers and found to be effective as a selective prevention program for children while enhancing supporting treatment (Kumpfer, in press).

SFP includes 14 sessions of parent training combined with family skills training and a children's social skills training class generally held once a week for 14 weeks. When all three components are included in this standardized program, significant reductions are found in risk factors for drug use in 6- to 12-year-old children. Even the most dysfunctional drug-abusing women were capable of improving their parenting skills and improving children's behaviors and emotional status (DeMarsh and Kumpfer 1985). This program has been modified and found successful in reducing intentions to use drugs and actual use among those children already using drugs. It also has been found to be effective in decreasing conduct disorders and aggression, depression, compulsive behaviors, and social withdrawal; improving parenting and nurturing skills; improving the family climate and environment (i.e., decreasing family conflict, increasing family communication and organization); and reducing drug use among drug-abusing mothers not in treatment (Kumpfer, in press).

These results have been replicated in several independently evaluated clinical trials and demonstration evaluation projects for different ethnic populations, including African-American drug-abusing parents in inner-city Detroit treatment programs (Aktan et al. 1996); African-American drug-abusing single-parent mothers in Alabama (Kumpfer

1991*a*); multiethnic families in three counties and eight substance abuse treatment agencies in Utah, a trial that included a 5-year followup (Harrison 1994; Harrison and Proschauer 1996); Hispanic drug-abusing parents from housing projects in Denver, CO (Wamberg and Nyholm 1995); and Asian and Pacific Islander families in Hawaii (Kameoka and Lecar 1993, 1996). Improvements in the children were statistically and clinically significant and were measured using standardized clinical diagnostic measures, such as the Child Behavior Checklist (Achenbach and Edelbrock 1988).

All the programs mentioned above address the therapeutic needs of the child as well as the mother. Given the high dropout rate and poor long-term prognosis of traditional drug abuse treatment for women (Lewis et al. 1996, pp. 110-122), the area of greatest treatment improvement is probably with the children.

Through two national searches for the best family-strengthening approaches in the country for the Federal Office of Juvenile Justice and Delinquency Prevention, a number of effective programs were identified. These family-strengthening programs include (1) neighborhood parent-support groups (Kumpfer 1994); (2) case management programs that coordinate comprehensive family services, such as United Way's Success by Six Program (Kumpfer et al. 1997*c*) and Healthy Families Hawaii (Gomby et al. 1993); (3) in-home professional services—such as the Nurse Home Visitation Program (Olds and Kitzman 1993; Olds and Pettitt 1996), Home Instruction Program for Preschool Youngsters, and Parents As Teachers; (4) volunteer family support services, such as foster grandparents or family mentors for the mother (Yoshikawa 1994); (5) parenting and family skills training courses, such as SFP (Kumpfer et al. 1989), which can be conducted in hospitals, community centers, mental health clinics, drug treatment agencies, schools, and homes; and (6) children's supportive and treatment services (e.g., play therapy [Egeland and Erickson 1987, pp. 110-120; Egeland and Erickson 1990], behavioral family therapy [Forehand and McMahon 1981], and tutoring in school).

The best programs are the most comprehensive ones (Kumpfer 1994, 1997*b*). This suggests that a comprehensive family support program or center that includes all the needed basic services for drug-abusing mothers would be the most successful model program. Convenient

location in high-risk areas is important, whether in or near inner-city hospitals, housing projects, or community centers. A friendly, accessible, and cheerful atmosphere will attract more women to the program. Colocating public health clinics and community recreational and child-care centers may create the best environment.

Safety issues must be addressed in home visiting programs. Obtaining an attractive and safe facility is a major priority. Research participants, particularly mothers with infants and toddlers, are not likely to participate in a treatment program where the setting is dangerous (Chasnoff et al. 1996, pp. 6-21). Special training is recommended for the home visitors if they are working in homes of drug-abusing mothers who may have drug-abusing spouses or partners.

## RECOMMENDATIONS FOR FUTURE RESEARCH

More information is needed from large prospective and cross-sectional studies on the impact of maternal drug use on children's later drug use. The quality of the maternal-child relationship, family climate, and home environment should be examined in detail to determine transactional processes that could lead to vulnerability or resiliency to drug use and other developmental or behavioral problems. The most cost-effective ways should be studied to improve maternal drug abusers' parenting skills and care of the child to promote successful outcomes. Until a better body of research exists on the family, school, and community environmental factors that lead a woman to associate with other drug- and alcohol-using friends or to continue use during pregnancy and parenting, neither can the effects of maternal addictions on children be prevented nor will providers understand how to effectively treat addictions in the mothers. Once promising prevention models are evaluated, cost-benefit analyses are needed to demonstrate that they are cost-effective (Kim et al. 1995). Alcohol and other drug patients often recycle many times through expensive inpatient treatment facilities until a primary "cause" for their drug addiction is finally discovered (e.g., childhood sexual or physical abuse, primary depression, lack of social coping skills, marital conflict, parenting anxiety, or poor stress- or anger-coping ability).

The U.S. population is confronted with the consequences of the "feminization of poverty" and the dramatic cutbacks in social services to

low-income mothers and their children. Society must respond to these changes or pay dearly for many years. Finding solutions for a problem of this magnitude will not be easy. There will be no quick solution to the problem of drug-exposed infants and children raised by drug-abusing parents. Solutions are likely to challenge the traditional services systems to find nontraditional solutions because the current services systems are not working well for this population. A full continuum of care is needed that begins with prenatal care and extends through childhood. Without colocation and redefinition of services, a therapeutic case management approach currently appears to be the best solution to help mothers negotiate the maze of diverse services required to meet their multiple needs. However, the temporary solution of having personal guides through a complex services system is expensive and time consuming. The best solution may be to redefine the categorical services system and colocate or integrate most basic services into small personal agencies or walk-in centers. These systemwide changes in how services are delivered to low-income women show promise and deserve to be thoroughly evaluated for outcomes and implementation issues. Most importantly, effective indicated prevention services must be provided to children of drug abusers, and treatment services must be provided to their mothers by strengthening the research and training of professionals in this area.

## REFERENCES


Achenbach, T.M., and Edelbrock, C. *Child Behavior Checklist (CBCL)*. Burlington, VT: Center for Children, Youth, and Families, University of Vermont, 1988.

Aktan, G.B.; Kumpfer, K.L.; and Turner, C.W. Effectiveness of a family skills training program for substance use prevention with inner city African-American families. *Subst Use Misuse* 31(2):157-175, 1996.

Amaro, H.; Zuckerman, B.; and Cabral, H. Drug use among adolescent mothers: Profile of risk. *Pediatrics* 84(1):144-151, 1989.

Arkin, E.B., and Funkhouser, J.E., eds. *Communicating About Alcohol and Other Drugs: Strategies for Reaching Populations at Risk*. OSAP Prevention Monograph-5. Office for Substance Abuse Prevention. DHHS Pub. No. (ADM)90-1665. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, 1990. 402 pp.

Bayes, J. Substance abuse and child abuse: Impact of addiction on the child. *Pediatr Clin North Am* 37(4):881-904, 1990.

Botvin, G.J.; Baker, E.; Dusenbury, L.; Botvin, E.M.; and Diaz, T. Long-term follow-up results of a randomized drug abuse prevention trial in a white middle-class population. *JAMA* 273(14):1106-1112, 1995.

Brady, K.T.; Grice, D.E.; Dustan, L.; and Randall, C. Gender differences in substance use disorders. *Am J Psychiatry* 150(11):1707-1711, 1993.

Bry, B.; Catalano, R.; Kumpfer, K.; Lochman, J.E.; and Szapocznik, J. Scientific findings from family prevention intervention research. In: Ashery, R.S., and Kumpfer, K.L., eds. *Family Intervention Research for the Prevention of Drug Use in Youth*. National Institute on Drug Abuse Research Monograph. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., in press.

Catalano, R.F. "Treatment and Prevention Issues With Substance Abusing Families." Paper presented at the National Institute on Drug Abuse Family Intervention Research Symposium, Gaithersburg, MD, January 25-26, 1996.

Catalano, R.F.; Haggerty, K.P.; and Gainey, R.R. Prevention approaches in methadone treatment settings: Children of drug abuse treatment clients. In: Bukoski, W.J., and Amsel, Z., eds. *Drug Abuse Prevention: Sourcebook on Strategies and Research*. Westport, CT: Greenwood, in press.

Catalano, R.F., and Hawkins, J.D. Project skills: Preliminary results from a theoretically based aftercare experiment. In: Ashery, R.S., ed. *Progress in the Development of Cost-Effective Treatment for Drug Abusers*. National Institute on Drug Abuse Research Monograph 58. DHHS Pub. No. (ADM)88-1401. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1985.

Chasnoff, I.J. Drug use in pregnancy: Parameters of risk. *Pediatr Clin North Am* 35(6):1403-1412, 1988.

Chasnoff, I.J.; Marques, P.R.; Strantz, I.H.; Farrow, J.; and Davis, S. Building bridges: Treatment research partnerships in the community. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Chess, S., and Thomas, A. *Origins and Evolution of Behavioral Disorders: From Infancy to Early Life*. Cambridge, MA: Harvard University Press, 1984.

Cloninger, C.R.; Sigvardsson, S.; and Bohman, M. Childhood personality predicts alcohol abuse in young adults. *Alcohol Clin Exp Res* 12:494-505, 1988.

Cuskey, W.R.; Richardson, A.H.; and Berger, L.H. *Specialized Therapeutic Community Program for Female Addicts*. National Institute on Drug Abuse Research Report Series. DHEW Pub. No. (ADM)79-880. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1979. 31 pp.

DeMarsh, J., and Kumpfer, K.L. Family-oriented interventions for the prevention of chemical dependency in children and adolescents. Special Issue: Childhood and Chemical Abuse: Prevention and Intervention. *J Child Contemp Soc: Adv Theory Appl Res* 18(1/2):117-152, 1985.

Deren, S. Children of substance abusers: A review of the literature. *J Subst Abuse Treat* 3:77-94, 1986.

Donohew, L.; Sypher, H.E.; and Bukoski, W.J., eds. *Persuasive Communication and Drug Abuse Prevention*. Hillsdale, NJ: Lawrence Earlbaum, 1991. 349 pp.

Egeland, B., and Erickson, M.F. Psychologically unavailable care giving: The effects on development of young children and the implications for intervention. In: Brassard, M.; Hart, S.; and Germain, B., eds. *Psychological Maltreatment of Children and Youth*. New York: Pergamon Press, 1987.

Egeland, B., and Erickson, M.F. Rising above the past: Strategies for helping new mothers break the cycle of abuse and neglect. *Zero to Three* 11(2): 29-35, 1990.

Emshoff, J., and Price, A.W. "Prevention and Treatment Options for Children of Alcoholics." Paper commissioned for the National Association for Children of Alcoholics Pediatric Initiative, Alexandria, VA, March 20-21, 1997.

Finkelstein, N. "Treatment Issues: Women and Substance Abuse." Research paper prepared for the National Coalition on Alcohol and Drug Dependent Women and Their Children, Boston, MA, September 1990.

Forehand, R.L., and McMahon, R.J. *Helping the Noncompliant Child: A Clinician's Guide to Parent Training.* New York: Guilford Press, 1981. 253 pp.

Fried, P.A. Behavioral outcomes in preschool and school-age children exposed prenatally to marijuana: A review and speculative interpretation. In: Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research.* National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

Glider, P.; Hughes, P.; Mullen, R.; Coletti, S.; Sechrest, L.; Neri, R.; Renner, B.; and Sicilian, D. Two therapeutic communities for substance-abusing women and their children. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Gomby, D.S.; Larson, C.S.; Lewit, E.M.; and Behrman, R.E. Home visiting: Analysis and recommendation. *Future Child* 3(3):6-22, 1993.

Gordon, R. An operation classification of disease prevention. In: Steinberg, J.A., and Silverman, M.M., eds. *Preventing Mental Disorders: A Research Perspective*. DHHS Pub. No. (ADM)87-1492. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, National Institute of Mental Health, 1987.

Haggerty, K.P.; Mills, E.; and Catalano, R.F. *Focus on Families: Parent Training Curriculum*. Seattle, WA: Social Development Research Group, 1991.

Hans, S.L. "Impact of Children on Drug-Abusing Parents." Paper presented at the National Institute on Drug Abuse Technical Review on Methodological Issues: Etiology and Consequences of Drug Abuse Among Women, Gaithersburg, MD, June 16-17, 1994.

Hans, S.L. Prenatal drug exposure: Behavioral functioning in late childhood and adolescence. In: Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research*. National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

Harrison, R.S. "Final Evaluation of the Utah Community Youth Activities Project." Report submitted to Utah State Division of Substance Abuse, Social Research Institute, Graduate School of Social Work, University of Utah, Salt Lake City, UT, 1994.

Harrison, R.S., and Proschauer, S. "The Impact of Family Skills Training on Children at Risk for Substance Abuse and Their Families: A Five-Year Evaluation." Report submitted to Utah State Division of Substance Abuse, Social Research Institute, Graduate School of Social Work, University of Utah, Salt Lake City, UT, 1996.

Howard, J., and Beckwith, L. Issues in subject recruitment and retention with pregnant and parenting substance-abusing women. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Hughes, P.; Coletti, S.D.; Neri, R.L.; Urmann, C.F.; Stahl, S.; Sicilian, D.M.; and Anthony, J.C. Retaining cocaine-abusing women in a therapeutic community: The effect of a child live-in program. *Am J Public Health* 85:1149-1152, 1995.

Johnson, H.L.; Glassman, M.B.; Fiks, K.B.; and Rosen, T.S. Resilient children: Individual differences in developmental outcome of children born to drug abusers. *J Genet Psychol* 151(4):523-539, 1990.

Johnson, J., and Leff, M. "Overview of Research on Children of Substance Abusers." Paper commissioned for the National Association for Children of Alcoholics Pediatric Initiative, Alexandria, VA, March 20-21, 1997.

Johnson, J.L., and Bennett, L.A. *School-Aged Children of Alcoholics: Theory and Research.* New Brunswick, NJ: Center of Alcohol Studies, Rutgers University, 1988.

Kaltenbach, K.A. Exposure to opiates: Behavioral outcomes in preschool and school-age children. In: Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research.* National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

Kameoka, V., and Lecar, S. *Evaluation of Strengthening Hawaiian Families.* Honolulu, HI: Coalition for Drug-Free Hawaii, 1993.

Kameoka, V., and Lecar, S. "Final Report on Strengthening Hawaiian Families." Report submitted to the Center for Substance Abuse Prevention by the Coalition for Drug-Free Hawaii. Rockville, MD: Center for Substance Abuse Prevention, 1996.

Kaminer, Y. Adolescent substance abuse: A comprehensive guide to theory and practice. In: Kaminer, Y., ed. *Critical Issues in Psychiatry: An Educational Series for Residents and Clinicians.* New York: Plenum Medical Book Co., 1994. 265 pp.

Kellam, S.G.; Simon, M.B.; and Ensminger, M.E. Antecedents of teenage drug use and psychological well being: A ten-year communitywide prospective study. In: Ricks, D., and Dohrenwend, B.S., eds. *Origins of Psychopathology: Research and Public Policy.* Cambridge, MA: Cambridge University Press, 1983.

Kellam, S.G.; Werthamer-Larsson, L.; Dolan, L.J.; Brown, C.H.; Mayer, L.S.; Rebok, G.W.; Anthony, J.C.; Landolff, J.; and Edelsohn, G. Developmental epidemiologically based preventive trials: Baseline modeling of early target behaviors and depressive symptoms. Special Issue: Preventive Intervention Research Centers. *Am J Community Psychol* 19(4):563-584, 1991.

Kim, S.; Coletti, S.D.; Crutchfield, C.C.; Williams, C.; and Helper, N. Benefit-cost analysis of drug abuse prevention programs: A macroscopic approach. *J Drug Educ* 25(2):111-127, 1995.

Kumpfer, K.L. Special populations: Etiology and prevention of vulnerability to chemical dependency in children of substance abusers. In: Brown, B.S., and Mills, A.R., eds. *Youth at High Risk for Substance Abuse.* National Institute on Drug Abuse. DHHS Pub. No. (ADM)87-1537. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1987.

Kumpfer, K.L. Prevention of mental disorders, alcohol and other drug use in children and adolescents. In: Shaffer, D.; Philips, I.; and Enzer, N.B., eds. *Prevention of Mental Disorders, Alcohol, and Other Drug Abuse in Children and Adolescents*. OSAP Prevention Monograph-2. Office for Substance Abuse Prevention. DHHS Pub. No. (ADM)92-1646. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, 1989. 478 pp.

Kumpfer, K.L. Children and adolescents and drug and alcohol abuse and addiction: Review of prevention strategies. In: Miller, N.S., ed. *Comprehensive Handbook of Drug and Alcohol Addiction*. New York: Marcel Dekker, 1991*b*.

Kumpfer, K.L. "YCOSA Black Parenting Project: Final Evaluation Report." Report submitted to the Alabama Department of Mental Health and Mental Retardation, Department of Health Education, University of Utah, Salt Lake City, UT, November 1991*a*.

Kumpfer, K.L. *Strengthening America's Families: Promising Parenting and Family Strategies for Delinquency Prevention: User's Guide*. Office of Juvenile Justice and Delinquency Prevention. U.S. Department of Justice Grant 87-JS-CX-K495. Silver Spring, MD: Aspen Systems, 1994.

Kumpfer, K.L. "Outcome Measures of Intervention in the Study of Children of Substance-Abusing Parents." Paper commissioned for the National Association for Children of Alcoholics Pediatric Initiative, Alexandria, VA, March 20-21, 1997*a*.

Kumpfer, K.L. *The Strengthening America's Families Initiative: Promising Parenting and Family Strategies for Delinquency Prevention.* Office of Juvenile Justice and Delinquency Prevention. U.S. Department of Justice Grant 87-JS-CX-K495. Silver Spring, MD: Aspen Systems, 1997*b*.

Kumpfer, K.L. Effectiveness of culturally tailored, family-focused substance abuse programs: The Strengthening Families Program. In: David, S., ed. *National Conference on Drug Abuse Prevention Research: Presentations, Papers, and Recommendations.* National Institute on Drug Abuse Research Monograph. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., in press.

Kumpfer, K.L., and Alvarado, R. Strengthening families to prevent drug use in multi-ethnic youth. In: Botvin, G.; Schinke, S.; and Orlandi, M., eds. *Drug Abuse Prevention With Multi-Ethnic Youth*. Newburg, CA: Sage, 1995. 359 pp.

Kumpfer, K.L.; Alvarado, R.; and Adler, S. "Final Report of Success By Six." Report submitted to United Way, Department of Health Promotion and Education, University of Utah, Salt Lake City, UT, June 1997*c*.

Kumpfer, K.L., and Bayes, J. Child abuse and alcohol, tobacco and other drug abuse: Causality, coincidence or controversy? In: Jaffe, J.H., ed. *The Encyclopedia of Drugs and Alcohol.* New York: Macmillan, 1995.

Kumpfer, K.L., and DeMarsh, J. Family, environmental, and genetic influences on children's future chemical dependency. *J Child Contemp Soc: Adv Theory Appl Res* 18(1/2):49-91, 1985.

Kumpfer, K.L., and DeMarsh, J. "Prevention Services for Children of Substance-Abusing Parents." Final Report on National Institute on Drug Abuse Prevention Research Grant. Submitted to Utah State Division of Substance Abuse, Social Research Institute, University of Utah, Salt Lake City, UT, 1987.

Kumpfer, K.L.; DeMarsh, J.; and Child, W. *The Strengthening Families Program*. (Five manuals.) Salt Lake City, UT: Department of Health Education, University of Utah, 1989.

Kumpfer, K.L.; Molgaard, V.; and Spoth, R. Family interventions for the prevention of delinquency and drug use in special populations. In: De Peters, R.V., and McMahon, R., eds. *Preventing Childhood Disorders, Substance Abuse, and Delinquency*. Thousand Oaks, CA: Sage, 1996.

Kumpfer, K.L.; Rigby, D.; Walsh, E.M.; and Sorensen, S.L. *Drug Abuse Prevention Package: What Works!* National Institute on Drug Abuse. NIH Pub. No. 97-4110. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1997*a*.

Kumpfer, K.L.; Williams, M.K.; and Baxely, G., eds. *Drug Abuse Prevention for At-Risk Groups*. National Institute on Drug Abuse. NIH Pub. No. 97-4115. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1997b.

LaFazia, M.A.; Kleyn, J.; Lanz, J.; Hall, T.; Nyrop, K.; Stark, K.D.; Hansen, C.; and Watts, D.H. Case management: A method of addressing subject selection and recruitment issues. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Lerner, J., and Vicary, J. Difficult temperament and drug use: Analysis from the New York Longitudinal Study. *J Drug Educ* 14:1-8, 1984.

Lewis, R.A.; Haller, D.L.; Branch, D.; and Ingersoll, K.S. Retention issues involving drug-abusing women in treatment research. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Miller, J.B. *Toward a New Psychology of Women.* 2d ed. Boston, MA: Beacon Press, 1986. 1,541 pp.

Mrazek, P.J., and Haggerty, R.J., eds. *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research.* Institute of Medicine. Washington, DC: National Academy Press, 1994.

Olds, D., and Pettitt, L. "Reducing Risks for Substance Abuse With a Program of Prenatal and Early Childhood Home Visitation." Paper presented at the National Institute on Drug Abuse Family Intervention Symposium, Washington, DC, January 25-26, 1996.

Olds, D.L., and Kitzman, H. Review of research on home visiting for pregnant women and parents of young children. *Future Child* 14(3):53-92, 1993.

Rahdert, E.R. Introduction to the Perinatal-20 Treatment Research Demonstration Program. In: Rahdert, E.R., ed. *Treatment for Drug-Exposed Women and Their Children: Advances in Research Methodology*. National Institute on Drug Abuse Research Monograph 166. NIH Pub. No. 96-3632. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996.

Rosenbaum, M. *Women on Heroin*. New Brunswick, NJ: Rutgers University Press, 1981. 196 pp.

Rosenbaum, M., and Murphy, S. Women and addiction: Process, treatment, and outcome. In: Lambert, E.Y., ed. *The Collection and Interpretation of Data from Hidden Populations.* National Institute on Drug Abuse Research Monograph 98. DHHS Pub. No. (ADM)90-1678. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1990.

Schuckit, M.A. Advances in understanding the vulnerability to alcoholism. In: O'Brien, C.P., and Jaffe, J.H., eds. *Advances in Understanding the Vulnerability to Alcoholism.* New York: Raven Press, 1992.

Sowder, B.J., and Burt, M.R. *Children of Heroin Addicts: An Assessment of Health, Learning, Behavioral, and Adjustment Problems*. New York: Praeger, 1980. 151 pp.

Spear, L.P. Assessment of the effects of developmental toxicants: Pharmacological and stress vulnerability of offspring. In: Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research.* National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

Stevens, S.; Arbiter, N.; and Glider, P. Women residents: Expanding their role to increase treatment effectiveness in substance abuse programs. *Int J Addict* 24(5):425-434, 1989.

Tarter, R., and Mezzich, A. Ontogeny of substance abuse: Perspectives and findings. In: Glantz, M., and Pickens, R., eds. *Vulnerability to Drug Abuse.* Washington, DC: American Psychological Association, 1992.

Wamberg, K., and Nyholm, S. "Evaluation Results of the Strengthening Hispanic Families Program." Paper presented at the Center for Substance Abuse Prevention Annual High-Risk Youth National Conference, Denver, CO, March 1995.

Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research.* National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

Yoshikawa, H. Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks. *Psychol Bull* 115:28-54, 1994.

Zucker, R.A., and Fitzgerald, H.E. "Drug Abuse Prevention Through Family-Based Intervention: Lessons for Programming and Evaluation From Developmental and Etiological Studies." Paper presented at the National Institute on Drug Abuse Family Intervention Symposium, Washington, DC, January 1996.

Zuckerman, B. Drug effects: A search for outcomes. In: Wetherington, C.L.; Smeriglio, V.L.; and Finnegan, L.P., eds. *Behavioral Studies of Drug-Exposed Offspring: Methodological Issues in Human and Animal Research.* National Institute on Drug Abuse Research Monograph 164. NIH Pub. No. 96-4105. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1996. 297 pp.

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