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# RESEARCH TO PRACTICE BRIEF



## Supporting Mothers to Prevent Subsequent Prenatal Substance Use

*At the age of twenty, I was in the middle of becoming a full-blown meth addict. I didn't know what I wanted in life or where I was headed. I became pregnant throughout all of this, and I ended up in an alcoholic relationship with a man who fought with me daily. A month after my son was born, I got really drunk knowing that my breast milk could hurt my baby. I was a mess, and I lost my baby to the state. I was in a lot of pain over that, and I got pregnant again. I knew this time, if I didn't reach out for help, I would end up losing him too.*

Recurring alcohol or drug-exposed births among women who use substances prenatally is a social and public health concern with serious implications for the exposed children, families, and communities. Alcohol or drug use is a factor in 50-79% of child welfare cases in which young children are removed from custody (1, 2). In these cases, substance use treatment is typically a key component of child welfare family plans, with the aim of reducing risk to children by treating maternal addiction, improving maternal functioning, and, if possible, achieving family reunification (3). Unfortunately, women's treatment completion rates are low, ranging from 32% for outpatient treatment to 52% for short-term inpatient. This low completion rate may be due to the fact that women with substance use disorders commonly have co-occurring psychological disorders that not only put them at risk for poor or disrupted parenting, but also increase the likelihood of treatment dropout and relapse (4-11).

## Risk of Subsequent Substance-exposed Newborns

When a mother who has delivered a substance-exposed infant fails to comply with her alcohol and drug treatment regimen, two risks emerge: that she will relapse or continue to use substances, and that, if she becomes pregnant again, she will deliver a subsequent substance-exposed infant. Only a handful of studies have examined recurrent childbearing among substance-using mothers. A study of 931 women in the Illinois child welfare system found that 94% of the 151 substance-exposed infants born during the study period had mothers who had a prior substance-exposed infant (12). Another study found that among 240 substance-using pregnant women enrolled in a comprehensive treatment program, 98% of the mothers previously had given birth to a child prenatally exposed to alcohol or drugs (13). Families involved in the child welfare system due to prenatal substance use were more likely to have subsequent allegations compared to families involved in the system due to other child maltreatment allegations (14).

Researchers at the University of Washington Parent-Child Assistance Program (PCAP) conducted a study to examine the phenomenon of “replacement babies,” a term coined by PCAP clients to describe when women have additional children to “replace” a child removed from their custody (15). In brief, 795 pregnant or post-partum women who used alcohol or drugs during an index pregnancy were enrolled in the PCAP three-year intensive case management intervention. These women exemplify the intergenerational nature of familial substance use and dysfunction; they were often themselves neglected and abused as children.

Generally speaking, the following is a list of maternal risk factors seen in the PCAP model that were associated with having at least one substance-exposed newborn:

- being unmarried (92%);
- growing up in a home with substance-using parents (90%);
- being the victim of intimate partner violence (77%);
- having a history of incarceration (76%);
- receiving public assistance (71%);
- being homeless or insecurely housed (69%);
- experiencing childhood physical and/or sexual abuse (68%);
- attempting or successfully running away from home as a youth (64%);
- and being involved in the Child Welfare System in childhood (31%) (16).

All had a history of substance use during the most recent pregnancy, with marijuana being the illicit drug most commonly used during the index pregnancy (about 60%), followed by methamphetamine and cocaine (each about 50%).



## RESEARCH TO PRACTICE BRIEF

At the PCAP three-year exit, 78.1% of the 795 mothers had not delivered a subsequent birth (SB) during the three-year intervention, 9.6% had an alcohol and drug-free SB, and 12.3% had a substance exposed SB. The odds of having a substance exposed subsequent birth were increased nearly two-fold for women who had the index child removed from their care. Furthermore, the odds of having an alcohol/drug exposed subsequent birth were increased three-fold if the index child had been removed from the mother's care (15). By way of comparison, Ryan et al. found that over a three-year period, 21% of mothers who received typical substance use treatment without intensive case management had a substance exposed SB (12). The findings illustrated that a pattern of “replacement babies” can be the unintended consequence of removing children from the mother's custody. This is a powerful argument for providing intensive supports to mothers to help them build healthy family lives, stay in recovery, and maintain custody of their children.

## What Works: Services and Treatments

Child welfare agencies and community organizations may be able to interrupt the pattern of “replacement babies” by implementing policies and practices known to help mothers maintain custody. Or, in cases where the child(ren) have already been removed, agencies can bolster supports to help the mothers and their children reunify safely.



- *Comprehensive, Multidisciplinary Services*  
Much of the research on family reunification among mothers who have substance use disorders confirms the benefits of comprehensive, multidisciplinary, and accessible services being available and tailored to the expressed needs of the client (6, 17, 18, 19). Investigators examining reunification outcomes have further reported on the importance of families making progress in the areas of mental health, housing, and domestic violence (20). The benefits of employment/education services, and of mothers having their children with them while in treatment have also been noted (21, 22).
- *Intensive Case Management*  
High-risk mothers with substance use disorders, and often co-occurring mental health diagnoses, are commonly labeled as unmotivated and difficult to reach. Consequently, they often become distrustful of and alienated from community resources. The result is that the mothers who are at greatest risk for having children with serious developmental and psychosocial problems may be the least likely to seek and receive assistance from community resources. Intensive and persistent case management has been demonstrated as an effective strategy for reaching out to engage with these clients (23-27).

## RESEARCH TO PRACTICE BRIEF

- *Recovery Coaching*

Another example of intensive case management is the recovery coach model, a comprehensive strategy that includes home visits, clinical assessments, advocacy, service planning and coordination, and case management for substance affected families. Ryan et al. tested the efficacy of a recovery coach/intensive case management model in reducing subsequent exposed births among substance-using mothers in the child welfare system (12). Findings of their randomized controlled trial demonstrated that compared to traditional substance abuse services, recovery coach services significantly reduced the likelihood of subsequent substance-exposed infants over a three-year period (15% vs. 21%,  $p < .01$ ).

- *Substance Use Treatment, Particularly Outpatient Services*

In the previously mentioned PCAP study of subsequent births, the odds of having a subsequent birth were significantly reduced among women who had completed inpatient treatment and completed or were participating in post-residential outpatient treatment (15). The risk of a substance-exposed subsequent birth was significantly reduced among women having outpatient treatment, in particular. The benefit of treatment on subsequent birth outcomes may be explained in a wider context of achieving stability and maintaining child custody. Clients who attend inpatient residential treatment must ultimately transition to the community. During that transition, continuity of care (i.e., residential treatment followed by outpatient aftercare) is important to developing a recovery-oriented support network, preventing relapse, and maintaining overall progress—all factors critical to building a safe and stable home environment for children.

In their study of 160 mothers who had delivered a substance-exposed infant, Huang and Ryan found that mothers who received residential treatment combined with other community-based transitional programs (including outpatient, intensive outpatient, recovery homes, and methadone maintenance) were significantly more likely to achieve reunification compared to mothers who received only inpatient residential treatment (28). In an earlier study, Grant and colleagues examined this association in a more nuanced way. They found that mothers who reunified with their children and those who did not were equally likely to have completed inpatient treatment in structured residential settings (10). In such settings,



## RESEARCH TO PRACTICE BRIEF

clients have less need for independent decision-making and self-regulation because daily planning and organization were the responsibility of staff. However, mothers who did not regain custody were far less successful in completing outpatient treatment. These settings were less structured and required intact independent functioning skills (e.g., prioritizing, planning daily activities around treatment sessions, coping with unforeseen events, arranging for transportation) (10).

### **The Parent-Child Assistance Program (PCAP) model**

<http://depts.washington.edu/pcapuw/>

PCAP began in 1991 at the University of Washington (Seattle, Washington) as a federally-funded research demonstration designed to test the effectiveness of an intensive, 3-year advocacy/case management model with high-risk mothers who abused alcohol and/or drugs during an index pregnancy. PCAP's primary aims are to assist mothers in obtaining alcohol and drug treatment, staying in recovery, and resolving the myriad of complex problems related to their substance abuse; to assure that the children are in safe, stable home environments; and to prevent the births of future alcohol- and drug-exposed children.

Case managers each have caseloads of 16 families, conduct home visits approximately twice per month, connect women and their families with comprehensive community services, and coordinate services among providers in this multidisciplinary network. The case managers are highly trained and closely supervised by clinicians who are credentialed in the mental health, social work, or chemical dependency fields.



- *Mental Health Services*

Researchers found that at program exit, 60% of the substance-using women who participated in the PCAP intervention program were caring for their index child (10). Factors that contributed to this outcome included having:

- more substance use treatment and mental health service needs met;
- more time abstinent from alcohol and drugs;
- secure housing;
- higher income;
- and support for staying clean and sober.

The mothers who were unable to regain custody of the index child had more serious psychiatric problems and fewer of their service needs met than those who were able to regain custody. Untreated mental health diagnoses may have limited the ability of the former group to access mental health treatment and utilize critical community services. Similarly, among substance-using mothers receiving treatment, poor psychiatric status reduced the likelihood of reunification (21).

## RESEARCH TO PRACTICE BRIEF

- *Neurocognitive Assessments and Modifications*

Women with histories of substance use commonly have experienced a range of traumatic experiences that may result in neurocognitive impairments requiring special considerations in case planning. For example, approximately 20% of PCAP clients may have a Fetal Alcohol Spectrum Disorder as a result of their own mother's heavy alcohol use during pregnancy. Many other clients have experienced traumatic brain injuries as a result of abuse or accidents. The resulting neurological impairments may include problems with attention and concentration, learning, problem-solving, impulse control, and executive functioning (29, 30, 31). These impairments complicate the client's ability to understand and participate in the goal-setting process, fundamental for engagement and retention, and they impede her everyday life functioning (32-35).



A referral for a comprehensive neuropsychological assessment as early as possible in the intervention process is critical for clients who may have neurological deficits. This assessment should:

- determine the woman's strengths, weaknesses, and functional capabilities;
- map out realistic expectations for goal setting and treatment;
- identify modifications in case planning that could improve outcomes;
- and evaluate her ability to parent successfully.

#### *Utilizing Neurocognitive Assessments: A Case Study*

Sparrow et al. presented a case study in which neuropsychological assessment results were used to help members of a multidisciplinary team reframe their thinking and respond to the client's strengths and impairments by adjusting their language, expectations and interventions accordingly (36). These modifications included:

- presenting information in concrete rather than abstract ways;
- using simple language;
- demonstrating concepts visually and asking the client to demonstrate her understanding;
- specifying a limited number of viable alternatives for the client's consideration when a choice needs to be made; and
- role modeling and practicing specific behaviors (36).

## What Works: Components of Service

- *Use Motivational Interviewing*

Incorporate the Stages of Change Theory to recognize that people will be at different stages of readiness for change at different times, and that ambivalence about changing behavior is normal and should be expected (37). Case managers can use motivational interviewing (MI), a counseling style that helps clients examine their ambivalence about change and increases intrinsic motivation to change (38, 39). The basic principles embodied in MI—expressing empathy, developing discrepancy, accommodating resistance and supporting self-efficacy—call for case managers to be empathetic and nonjudgmental, to listen respectfully to the client, and to trust in the client's perception and judgment about her own life. In practice, case managers affect a client's self-efficacy by helping her to define explicit, realistic goals and then developing a plan that will help her achieve these goals.

- *Hire Peers*

Relational theory emphasizes the importance of positive interpersonal relationships in women's growth, development, definition of self; and in their addiction, treatment, and recovery (40). Building on this concept, value should be placed on hiring case managers who have successfully overcome difficult personal, family, or community life circumstances similar to those experienced by their clients (for example, substance use or poverty). Shared history allows case managers to better understand, gain access to, and build rapport with clients who might otherwise be difficult to engage. Case managers who have undergone challenging change processes, achieved significant goals, and maintained these successes over several years are realistic role models who can inspire hope in their clients.



- *Establish Rapport*

Building rapport may take months for clients whose lifelong experiences of abuse and abandonment taught them not to trust easily. The following tips may help foster a trusting relationship with clients.

- Identify and address immediate, practical concerns and basic needs requests, such as obtaining clothing and diapers for a newborn or locating temporary housing.
- Set some ground rules by defining the nature of the client-clinician relationship, including what is expected of both parties.
- Provide the client with a reasonable timeline of services so she knows what to expect.
- Include the client in decision making, whenever possible.
- Develop case plans as a dyad.
- Don't make promises you cannot keep.
- Don't give up! Keep going back, even when the client no-shows or does not answer the door. Show her that you won't give up on her.

Successful case managers are persistent and find unique, sincere ways to build trust without being pushy. They tell their clients a little about themselves and why they chose to do this work. In addition to home visits, they make phone calls and send notes, letters, and text messages to keep their clients engaged.

## RESEARCH TO PRACTICE BRIEF

- *Personalize Treatment Plans*

Each organization has specific program goals, just as the child welfare system, drug treatment courts, and other entities involved have specific requirements of women. The key to success is weaving these extrinsic expectations of the community with the client's intrinsic values in a highly individualized process so the intervention will be personalized and meaningful, rather than imposed. Clinicians may use the Difference Game to do this, a concrete, explicit method that helps clients identify goals and the incremental steps that must be taken to meet those goals (41).

Based on the discussion that stems from the Difference Game and using MI strategies, the case manager works with her client to identify a few specific, meaningful goals that she would like to work on during the next two to four months. Together they agree on realistic, incremental ("baby") steps they will each take toward meeting those goals, and they determine who will be responsible for accomplishing

different tasks. It is critical that some of the steps, no matter how small, be attainable by the client in the designated period, because it is as she observes herself accomplishing desired behavior that her sense of competency and self-efficacy develops. The clinician and client should evaluate and re-establish goals and steps regularly.

#### **The Difference Game**

[http://depts.washington.edu/pcapuw/inhouse/How\\_to\\_Order\\_Difference\\_Game.pdf](http://depts.washington.edu/pcapuw/inhouse/How_to_Order_Difference_Game.pdf)

Adapted from a scale developed by Dunst, Trivette, and Deal (42), the game is a card sort instrument consisting of 31 cards, each of which names a possible client need (e.g. "housing," "safe daycare," "drug or alcohol treatment"). The client sorts the cards into two piles, items that would "make a difference", and those that would not. The client then selects from the "yes" cards the 5 items that represent her most important needs, and then ranks these in order of her priorities. The case manager engages the client in a gently probing conversation about each of the five cards selected ("Tell me about this..."). During this conversation the client's story begins to emerge, and the case manager learns what is important to her, and how she thinks about her problems.



## RESEARCH TO PRACTICE BRIEF

- Develop Realistic Expectations Around Reunification*

Regaining custody of children in the child welfare systems is a common goal stated by clients, though case managers may not always concur that reunification is in the best interest of the child/ren. The turning point for successful resolution of child custody issues occurs when the mother comes to terms with her ability to parent and is willing to consider the best interests of the child. For some mothers, this means deciding to relinquish custody to a foster family who has bonded with the child and would like to adopt. For others, it means staying in recovery and doing whatever is necessary to resume or maintain custody of her child/ren.
- Offer Family-centered Services*

Effective case management takes place within the context of a client's family. To whatever extent possible, case managers should attempt to establish rapport with the older children, the husband or significant other, extended family members, and close acquaintances. Everyone in this network is involved in some way with the client's substance use and related challenges, and they will be affected as the client attempts to dismantle dysfunctional patterns and relationships. Family members may have a powerful influence over the woman. Gaining their trust, and hopefully their support for her recovery process, allows the case manager access and the opportunity to communicate with this important group. It is important to remember that the family's support is not at all guaranteed; they may resent the 'intrusion' and respond with resistance and triangulation.



Providing services or referrals for the client's network increases the likelihood of family engagement. If possible, within your agency, provide referrals and service linkages for the client's family members. For example:

- assist the older children in obtaining summer day camp scholarships;
- arrange for school psychologist services;
- make referrals to treatment or job training for a partner;
- and arrange for respite care or a public health nurse for the grandmother who cares for the client's children.

## RESEARCH TO PRACTICE BRIEF

- *Model Parenting Skills*

Most of the mothers in treatment were themselves abused, neglected, or very troubled as children. No one intervened then, and few of them now have a psychological template for what healthy adult life or parenting dynamics might look like. Clients want to be healthy adults and good mothers, but they need a great deal of help understanding what that means. They need:

- to be taught what a healthy parent-child relationship looks like;
- appropriate, consistent role models to show them how to set boundaries and provide discipline;
- someone to demonstrate and help them practice skills in “real-time”;
- and someone to give them praise, positive reinforcement and offer constructive criticism.

The most effective teaching techniques are hands-on and experiential. Case managers can act as role models in all of their activities with the client, including basic skills, parenting skills, social interaction, household management, and even telephone etiquette as clients interact with agencies and service providers.

- *Offer Family Planning*

Future alcohol and drug exposed births can be prevented in one of two ways: by helping women avoid alcohol and drug use during pregnancy, or by helping them avoid

becoming pregnant if they are still using alcohol and/or drugs. Case managers should explicitly address the issue of contraception with their clients. The aim for most mothers is either to end childbearing and focus on caring for the children they already have or to delay a next pregnancy until a time when they are better prepared to care for another child. Obviously, these choices are framed within a context of hope that their children will be able to remain in their care.

Case managers help clients understand that family planning does not mean never having another baby. Rather, it means planning a pregnancy to occur at an optimal time (for example, when the mother is in recovery from alcohol and drug addiction; when the father is someone who will be a good partner and dad; when the mom has stable housing).

It is essential that case managers connect clients with family planning clinics or health care providers who will provide physical examinations, identify potential contraindications for various birth control methods, and determine the safest and most appropriate method for the woman. Case managers are most successful when they accompany their clients to clinic visits to help ask questions and review materials, and when they make sure clients understand how to use prescribed methods correctly.

Introducing family planning and motivating a client to obtain a contraceptive method is not necessarily a straightforward process for reasons ranging from personal, cultural, and familial, to those imposed by lawmakers or the insurance industry. The process takes time, and may involve setbacks, missed appointments, contraceptive side effects or failure, or a subsequent unintended pregnancy. Anticipating this can reduce case manager frustration.



## RESEARCH TO PRACTICE BRIEF

- *Keep Mom Involved in Her Role As Mother*

Subsequent births might be reduced and subsequent exposed births prevented by finding options for substitute care that keep a mother involved in her role and responsibilities as a mother. If the mother's initial substance-exposed newborn is placed in kinship/relative care with appropriate contingencies, foster care with increasing but supervised mother/child visitation, supervised transitional group home settings, or residential treatment facilities for mothers and their children, the mother will be given the opportunity to maintain a relationship with her child, increasing her motivation for recovery.

- *Utilize Harm Reduction*

Harm reduction theory views alcohol, drug use, and associated risks along a continuum, with the goal being to help a client move from excess to moderation and, ultimately, to abstinence in order to reduce the harmful consequences of the habit (43). In this view, any steps toward decreased risk are steps in the right direction (44). Clinicians need to address all risk behaviors, not just substance use, in order to reduce harm to both the clients and their children.

- *Anticipate Relapse*

Experts agree that relapse is a part of recovery. Clients should not be asked to leave their program because of noncompliance or relapse. Making fundamental changes in long-established behavior patterns will naturally entail setbacks. Beginning at intake, ask clients to contact their case manager quickly if they relapse. This allows the case manager to provide support in resuming recovery or treatment and repairing any damage done. Case managers then approach the problem pragmatically, using the client's relapse experiences to help examine events that triggered the setback and to develop resiliency strategies for next time. This practice reduces time



clients spend in relapse and increases time between relapses. When a client is able to successfully rebound from a relapse event, she develops self-efficacy as she observes herself coping, overcoming a crisis, and moving on.

*CPS required me to go to inpatient treatment. While I was there, I was introduced to my PCAP case manager. It was hard for me to trust anyone, and I was a little weary of joining any program. I was going to do whatever I needed to keep my son, though. Despite the fact that I was a struggling addict and felt worthless, I still loved him and wanted to be the best mother I could be. My case manager was patient with me, and, in time, I began to realize that maybe someone does just want to help and not see me fail. Through PCAP, I reached every goal I set with my worker. When I felt like giving up, she was right along with me. Without their support, I wouldn't be where I am today.*

## RESEARCH TO PRACTICE BRIEF

Mothers who use substances struggle with complex social and personal issues that substantially increase the challenges they face when trying to succeed in treatment. The traditional response in our child welfare system has been to protect their children by removing them from their mother's care, which inadvertently increases the likelihood of serious attachment issues in these children. Those mothers who complete treatment services alone, without proper interventions to improve their parenting styles, perpetuate the "revolving door" dynamic this situation creates in our society. Services and supports that promote a woman maintaining custody of her child or successfully reunifying further the possibility of her being able to focus on caring for the children she has, rather than bringing additional children into the world under very troubling circumstances.

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## References

1. Testa, M. & Smith, (2009). Prevention and drug treatment. In C. Paxson & R. Haskin (Eds.), *The Future of Children: Preventing Child Maltreatment*, 19(2), 147-168.
2. Young, N. K., Boles, S. M., & Otero, C. (2007). Parental substance use disorders and child maltreatment: overlap, gaps, and opportunities. *Child Maltreatment*, 12(2), 137-149.
3. Smith, B. (2003). How parental drug use and drug treatment compliance are related to family reunification. *Child Welfare*, 82(3), 335-365.
4. Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS) (2009a). *The TEDS report: Treatment outcomes among clients discharged from residential SAT: 2005*. Rockville, MD., United States: Author.
5. Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS) (2009b). *The TEDS report: Treatment discharged from outpatient SAT*. Rockville, MD., United States: Author.
6. Choi, S. & Ryan, J. P. (2007). Co-occurring problems for substance abusing mothers in child welfare: Matching services to improve family reunification. *Children and Youth Services Review* 29(11), 1395–1410.

## RESEARCH TO PRACTICE BRIEF

7. Miles, D. R., Svikis, D. S., Kulstad, J. L., & Haug, N. A. (2001). Psychopathology in pregnant drug-dependent women with and without comorbid alcohol dependence. *Alcoholism, Clinical and Experimental Research*, 25(7), 1012-1017.
8. Minnes, S., Singer, L. T., Humphrey-Wall, R., & Satayathum, S. (2008). Psychosocial and behavioral factors related to the post-partum placements of infants born to cocaine-using women. *Child Abuse and Neglect*, 32(3), 353-366.
9. Zilberman, Tavares, Blume, & el-Guebaly, (2003). Zilberman, M.L., Tavares, H., Blume, S.B., & el-Guebaly, N. (2003). Substance use disorders: Sex differences and psychiatric comorbidities. *Canadian Journal of Psychiatry*, 48(1), 5-13.
10. Grant, T., Huggins, J., Graham, C., Ernst, C., Whitney, N., and Wilson, D. (2011). Maternal substance abuse and disrupted parenting: Distinguishing mothers who keep their children from those who do not. *Children and Youth Services Review*, 33(11), 2176-2185.
11. Bernstein, D. P. (2000). Childhood trauma and drug addiction: Assessment, diagnosis, and treatment. *Alcoholism Treatment Quarterly*, 18(3), 19-30.
12. Ryan, J. P., Choi, S., Hong, J. S., Hernandez, P., & Larrison, C. R. (2008). Recovery coaches and substance exposed births: An experiment in child welfare. *Child Abuse and Neglect*, 32(11), 1072-1079.
13. Kissin, W. B., Svikis, D. S., Morgan, G. D. & Haug, N. A. (2001). Characterizing pregnant drug-dependent women in treatment and their children. *Journal of Substance Abuse Treatment*, 21(1), 27-34.
14. Smith, B. & Testa, M. F. (2002). The risk of subsequent maltreatment allegations in families with substance exposed infants. *Child Abuse and Neglect*, 26, 97-114.
15. Grant, T. M., Graham, J. C., Ernst, C. C., Peavy, K. M., & Brown, N. N. (2014). Improving pregnancy outcomes among high-risk mothers who abuse alcohol and drugs: Factors associated with subsequent exposed births. *Children and Youth Services Review*, 46, 11-18.
16. Grant, T., & Ernst, C. (2011). Final Report from the Parent-Child Assistance Program (PCAP) to the Division of Behavioral Health and Recovery: July 1, 2009 through June 30, 2011.
17. Marsh, J. C., D'Aunno, T. A., & Smith, B. D. (2000). Increasing access and providing social services to improve drug abuse treatment for women with children. *Addiction*, 95(8), 1237-1247.
18. Newmann, J. P., & Sallman, J. (2004) Women, trauma histories, and co-occurring disorders: Assessing the scope of the problem. *Social Service Review*, 78(3), 466-499.
19. Suchman, N., Pajulo, M., Decoste, C., & Mayes, L. (2006). Parenting interventions for drug-dependent mothers and their young children: The case for an attachment-based approach. *Family Relations*, 55(2), 211-226.
20. Marsh, J. C., Ryan, J., Choi, S., & Testa, M. (2006). Integrated service for families with multiple problems: Obstacles to family reunification. *Children and Youth Services Review*, 28(9), 1074-1087.
21. Grella, C. E., Needell, B., Shi, Y., & Hser, Y. I. (2009). Do drug treatment services predict reunification outcomes of mothers and their children in child welfare? *Journal of Substance Abuse and Treatment*, 36(3), 278-293.
22. Stevens, S. J., & Patton, T. (1998). Residential treatment for drug addicted women and their children: Effective treatment strategies. *Drugs & Society*, 13, 235-249.



## RESEARCH TO PRACTICE BRIEF

23. Havens, J. R., Cornelius, L. J., Ricketts, E. P., Latkin, C. A., Bishai, D., Lloyd, J. J., Huettner, S., & Strathdee, S. A. (2007). The effect of a case management intervention on drug treatment entry among treatment-seeking injection drug users with and without comorbid antisocial personality disorder. *Journal of Urban Health, 84*(2), 267-271.
24. Jansson, L. M., Svikis, D. S., Breon, D., & Cieslak, R. (2005). Intensity of case management services: Does more equal better for drug-dependent women and their children? *Social Work in Mental Health, 3*(4), 63-78.
25. McLellan, A. T., Gutman, M., Lynch, K., McKay, J. R., Ketterlinus, R., Morgenstern, J., & Woolis, D. (2003). One-year outcomes from the CASAWORKS for families intervention for substance-abusing women on welfare. *Evaluation Review, 27*(6), 656-680.
26. Morgenstern, J., McCrady, B. S., Blanchard, K. A., McVeigh, K. H., Riordan, A., & Irwin, T. W. (2003). Barriers to employability among substance dependent and non-substance-affected women on federal welfare: Implications for program design. *Journal of Studies on Alcohol, 64*(2), 239-246.
27. Morgenstern, J., Blanchard, K. A., McCrady, B. S., McVeigh, K. H., Morgan, T. J., & Pandina, R. J. (2006). Effectiveness of intensive case management for substance-dependent women receiving temporary assistance for needy families. *American Journal of Public Health, 96*(1), 2016-2023.
28. Huang, H., Ryan, J. P. (2011). Trying to come home: Substance exposed infants, mothers, and family reunification. *Children and Youth Services Review 33, 322-329*
29. Nordahl, T. E., Salo, R., & Leamon, M. (2003). Neuropsychological effects of chronic methamphetamine use on neurotransmitters and cognition: A review. *Journal of Neuropsychiatry and Clinical Neurosciences, 15*(3), 317-325. Review.
30. Scott, J. C., Woods, S. P., Matt, G. E., Meyer, R. A., Heaton, R. K., Atkinson, J. H., & Grant, I. (2007). Neurocognitive effects of methamphetamine: A critical review and meta-analysis. *Neuropsychology Review, 17, 275-297*.
31. Vocci, F. J. (2008). Cognitive remediation in the treatment of stimulant abuse disorders: A research agenda. *Experimental and Clinical Psychopharmacology, 16*(6), 484-497. Review.
32. Aharonovich, E., Hasin, D. S., Brooks, A. C., Liu, X., Bisaga, A., & Nunes, E. V. (2006). Cognitive deficits predict low treatment retention in cocaine dependent patients. *Drug and Alcohol Dependence, 81*(3), 313-322.
33. Dean, A. C., London, E. D., Sugar, C. A., Kitchen, C. M., Swanson, A. N., Heinzerling, K. G., & Shoptaw, S. (2009). Predicting adherence to treatment for methamphetamine dependence from neuropsychological and drug use variables. *Drug and Alcohol Dependence, 105*(1-2), 48-55.
34. Henry, B. L., Minassian, A., & Perry, W. (2010). Effect of methamphetamine dependence on everyday functional ability. *Addictive Behaviors, 35*(6), 593-598.
35. Sadek, J. R., Vigil, O., Grant, I., Heaton, R. K. & Group, the HIV Neurobehavioral Research Center (2007). The impact of neuropsychological functioning and depressed mood on functional complaints in HIV-1 infection and methamphetamine dependence. *Journal of Clinical and Experimental Neuropsychology, 29*(3), 266-276. doi:10.1080/13803390600659384



## RESEARCH TO PRACTICE BRIEF

36. Sparrow, J., Grant, T. M., Connor, P., & Whitney, N. (2013). The value of the neuropsychological assessment for adults with fetal alcohol spectrum disorders: A case study. *The International Journal of Alcohol and Drug Research*, 2(3), 79-86.
37. Prochaska, J. O., & DiClemente, C. C. (1986). Toward a comprehensive model of change. In: *Addictive Behaviors: Processes of Change* (pp. 3-28). W. Miller & N. Heather (Eds). New York: Plenum Press,
38. Miller, W. R., & Rollnick, S. (1991). Motivational interviewing: Preparing people to change addictive behavior. New York: Guilford Press.
39. Rollnick, S., & Bell, A. (1991). Brief motivational interviewing for use by the nonspecialist. In: *Motivational Interviewing: Preparing People to Change Addictive Behavior*, (pp. 203-13). W.R. Miller & S. Rollnick (Eds). New York: Guilford Press.
40. Miller, J. B. (1991). The development of women's sense of self. In: *Women's Growth in Connection*, (pp. 11-26). J. D. Jordan, A. G. Kaplan, J. B. Miller, I. P. Stiver, & J. L. Surrey (Eds). New York: Guilford Press.
41. Grant, T. M., Ernst, C. C., McAuliff, S., & Streissguth, A. P. (1997). The Difference Game: An assessment tool and intervention strategy for facilitating change in high risk clients. *Families in Society*, 78(4), 429-432.
42. Dunst, C. J., Trivette, C. M., & Deal, A. G. (1988). *Enabling and Empowering Families: Principles and Guidelines for Practice*. Cambridge, MA: Brookline Books.
43. Marlatt, G. & S. Tapert. 1993. Harm reduction: Reducing the risks of addictive behaviors. In: *Addictive Behavior Across the Life Span: Prevention, Treatment, and Policy Issues* (pp. 243-273). J. Baer & G. Marlatt (Eds). Thousand Oaks, CA: Sage Publications, Inc.
44. Marlatt, G. A., Somers, J. M., & Tapert, S. F. (1998). Harm reduction: application to alcohol abuse problems. *NIDA Research Monograph*, 137, 147-166.



The National Abandoned Infants Assistance Resource Center's mission is to enhance the quality of social and health services delivered to children who are abandoned or at risk of abandonment due to the presence of drugs and/or HIV in the family by providing training, information, support, and resources to service providers who assist these children and their families. The Resource Center is located at the University of California at Berkeley, and is a service of the Children's Bureau.