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Valerie Romero, Brad C. Donohue, Heather H. Hill, Suzanne Powell, Vincent B. Van Hasselt, Nathan Azrin and Daniel N. Allen

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# Family Behavior Therapy for Use in Child Welfare: Results of a Case Study Involving an Abused Woman Formally Diagnosed With Alcohol Dependence, Bipolar Disorder, and Several Anxiety Disorders

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## Abstract

The results of a multiple-baseline case study of family behavior therapy (FBT) is described in a woman formally diagnosed with alcohol dependence, bipolar disorder, generalized anxiety disorder, specific phobia, and panic disorder. She was referred to treatment from the local Department of Family Services for child neglect and domestic violence. After baseline measures were administered, the first phase of treatment involved home safety tours aimed at reducing home hazards and cleanliness. A second phase of treatment additionally targeted family relationships through communication skills training exercises, and a third phase involved administration of the remaining FBT components to assist in comprehensively addressing other problem areas. Results indicated most problem areas were substantially improved, but only after they were comprehensively targeted in therapy.

## Keywords

drug dependence, bipolar disorder, PTSD, family behavior therapy, child neglect

## I Theoretical and Research Basis

Approximately, 3 million children in the United States are maltreated each year, with child neglect accounting for more than half of these cases (U.S. Department of Health and Human Services [USDHHS], 2006). Relevant to child neglect, home hazards are the leading cause of death and serious injury in children younger than 5 years, and substance abuse has been indicated in at least 60% of the homes in which child maltreatment has been found to occur (see National Clearinghouse on Child Abuse and Neglect Information [NCCANCH], 2003).

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Parental substance use puts children at increased risk for child neglect, and problems associated with concurrent substance abuse and child neglect include domestic violence (Stuart, Moore, Ramsey, & Kahler, 2003), bipolar disorder (Grant et al., 2005), anxiety and other mood disorders, poor family relationships, unemployment, lack of support from family and friends, child behavior problems, and parenting skill deficits (Donohue, Romero, & Hill, 2006). Generalized anxiety disorder and panic disorder have been found to be particularly comorbid in alcohol dependence and exacerbate treatment outcomes (see review by Kuchner, Abrams, & Borchardt, 2000). When alcohol dependence and psychiatric disorders coexist, violence is more likely to occur (Corrigan & Watson, 2005); these individuals are more likely to engage in HIV-risk behaviors (Meade, Graff, Griffin, & Weiss, 2008) and experience legal difficulties, poor social supports, and occupational problems (DeBernardo, Newcomb, Toth, Richey, & Mendoza, 2002) and evidence poor prognosis in treatment (Dalton, Cate-Carter, Mundo, Parikh, & Kennedy, 2003). The latter findings have been purported to occur due to overlapping stressors associated with these disorders (Bender, Griffin, Gallop, & Weiss, 2007). Unfortunately, treatment programs rarely address severe comorbidity (Bellack, Bennett, Gearon, Brown, & Ye Yang, 2004).

Family behavior therapy (FBT) for substance abuse has been shown to (a) decrease alcohol and drug use, school absenteeism and conduct disorder in youth and work absenteeism in adults, and psychopathology and (b) improve family relationships in controlled trials (Azrin, Donohue, Besalel, Kogan, & Acierno, 1994; Azrin et al., 1996, 2001; Azrin, McMahon et al., 1994). Its interventions are chiefly aimed at teaching substance abusers to avoid or manage stimuli that often precede substance use, such as anxiety, arguments, anger, and depression. Many of the antecedent stimuli associated with drug abuse are also precursors to child neglect. For instance, arguments and negative emotions (e.g., depression, anxiety, and anger) may cause parents to be distracted from caretaking activities. Thus, avoiding or effectively managing antecedents to drug use may assist in the elimination of child neglect. Similarly, child neglect and drug abuse are facilitated by a lack of awareness or remoteness of negative consequences. Inspired by the pioneering work of John Lutzker and his colleagues in Project 12-Ways (Lutzker, Frame, & Rice, 1982), an ecobehavioral intervention that included FBT components was found to demonstrate efficacy in an uncontrolled trial involving caregivers of maltreated children (Donohue & Van Hasselt, 1999). However, FBT has yet to explicitly target cases involving severe coexisting pathology within child neglect and domestic violence.

The present study was primarily conducted to examine efficacy of a relatively new FBT component in reducing home hazards in a mother who was referred by child protective services (CPS) for child neglect, domestic violence, and drug abuse. However, in conducting a comprehensive pretreatment assessment battery, it became apparent that the participating mother evidenced several coexisting conditions in a structured clinical interview, including domestic violence, alcohol dependence, bipolar disorder, and several anxiety disorders (i.e., specific phobia, generalized anxiety disorder, panic disorder). None of these problems were identified by the referral agent. Therefore, this case provides an opportunity to demonstrate feasibility and robustness of FBT in concurrently treating severe coexisting pathology, including the importance of conducting comprehensive assessments with referrals from child welfare.

## 2 Case Presentation

Jessica presented to the clinic as a 42-year-old woman. She was referred for in-home FBT by CPS. At the time of the referral, Jessica was living with her 60-year-old husband, Jason, and their 3-year-old daughter, Beth. Jessica had two older daughters who did not reside in her home at the time of baseline assessment because they had been placed in the care of Jessica's mother and older sister by CPS due to severe child neglect. Her youngest daughter was in her custody because she was born after the neglect incident involving her older children had occurred.

### 3 Presenting Complaints

Jessica was arrested for assault with a deadly weapon, and the referral to CPS was made by the arresting officer. Jessica was accused of stabbing her husband in the stomach during a domestic dispute. The arresting officer referred Jessica to CPS because he believed she was intoxicated during supervision of her daughter. The report indicated that Jessica's daughter was not being properly supervised as evidenced by the violence in the home, lack of home cleanliness, and Jessica's substance use. During the investigation, Jessica tested positive for "crack" cocaine. Shortly after this investigation, Jessica was again reported for child neglect due to burns on her daughter's leg. Jessica reported the injuries occurred when her daughter tried to get hot soup off the stove. She was interested in learning new ways to cope with stress and "stay clean from drugs to keep the family together." Before participating in FBT, she provided informed consent. The current study was approved by the host university's institutional review board for the protection of human participants.

### 4 History

Jessica was raised by her mother and older sister. She reported having a positive relationship with both of these women. She reported that she did not have a relationship with her father and that his current whereabouts were unknown. Jessica's sister lived with their mother and helped raise Jessica's older daughters. She stated that her mother and sister were often upset with her behavior, and their expressions of disappointment served to trigger drug urges.

When Jessica was 16 years old, she attempted suicide for the first time, which appeared to co-occur with severe depression. It was at this time that she began using marijuana. Jessica experienced many stressors in her early life, including becoming a single mother, living in poverty, and experiencing mental health issues. At the age of 24, Jessica was diagnosed with bipolar disorder and received extensive counseling and medication management. By the age of 25, she "substituted" her medications with "crack" cocaine. She reported that using "crack" cocaine helped her cycle out of depressive states and cope with life stressors (e.g., physically abusive boyfriend). She attempted suicide for a second time when she was 25 years old, setting her bedroom on fire while she remained in her bed. Firemen were able to get Jessica out of the room safely. However, she was charged with arson and consequently hospitalized for depression and substance dependence for 1 year. After her hospitalization, Jessica was able to maintain employment, abstain from drugs, and develop social relationships with abstinent friends. She gave birth to two more children and married the father of these children. Soon after she gave birth to her third child, she discontinued her medication and began using crack cocaine until she was referred to the present study. During her initial visit to the treatment center, Jessica reported that she spent very little time with her youngest daughter, leaving her husband to conduct most of the parenting responsibilities. Jessica reported that her drug use was associated with a number of problems, including loss of employment, poor relationships, loss of the parental rights of her two older daughters, severe anxiety, anger, and legal problems (i.e., assault with a deadly weapon).

### 5 Assessment

#### *Comprehensive Pre- and Posttreatment Assessment*

Assessments were conducted by trained research assistants "blind" to study design. A comprehensive battery of measures was administered 1 week before treatment and 1 month after treatment. This battery included the following methods:

Structured Clinical Interview for *DSM-IV* (*Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. [SCID-IV]; American Psychiatric Association, 1994; Spitzer, Williams, Gibbon, & First, 1992) is a structured diagnostic interview utilized to assess a variety of *DSM-IV* disorders. In this study, the SCID-IV was used to establish a current and lifetime diagnosis of substance use disorders. In addition, it was used to identify other comorbid Axis I disorders.

Home safety and beautification assessment tour (HS-BAT; Donohue & Van Hasselt, 1999) is derived from the Checklist for Living Environments to Assess Neglect (CLEAN) as well as the Home Accident Prevention Inventory (Tertinger, Greene, & Lutzker, 1988). The HS-BAT assesses living conditions in the home, such as observed hazards (e.g., toxins, electrical hazards, and sharp objects), unclean areas, and lack of resources to facilitate social growth for children (i.e., toys, books, and clothing). The checklist yields a total hazard score, with higher scores indicating more home hazards and beautification issues.

Timeline follow-back interview (TLFB; Sobell, Sobell, Klajner, Pavan, & Basian, 1986) was used to gather reports of the frequency of the participant's substance use during the 4 months preceding each assessment. This measure was completed by the participant and a significant other separately. Significant events are marked on calendars going back 4 months from the date of the assessment to facilitate recall of days in which substances were used. Participants are queried to indicate on the calendar the days substances were used. The scores are calculated by totaling the number of days substance use is reported.

Urine drug screens included a nine-panel screen utilizing conventional cutoffs to determine use of alcohol, THC (marijuana), cocaine, amphetamines, barbiturates, benzodiazepines, opiates, phencyclidine (PCP), and methaqualone.

Parenting Stress Index–Short Form (PSI-SF; Abidin, 1995) is a 36-item measure of stress in the parent–child system and includes three scales (i.e., Parental Distress, Parent–Child Dysfunctional Interaction, and Difficult Child) and a 5-point Likert-type scale response format (i.e., *strongly agree*, *strongly disagree*) with higher scores indicating higher levels of perceived parenting stress. The clinical cutoff for total stress is above 90, and a defensive responding score of 24 indicates the individual may be responding in a defensive manner.

The Child Abuse Potential Inventory (CAPI; Milner, 1986) consists of 160 items designed to detect persons who are at risk of abusing their children. The CAPI factors include abuse, lie, random responding, distress, rigidity, unhappiness, loneliness, and problems with others, with child, with self, and with family. The clinical cutoff score for the Abuse Potential Scale is 215.

In the Cohesion and Conflict subscales of the Family Environment Scale (FES; Moos & Moos, 1984), the Cohesion subscale measures the degree of commitment, help, and support family members provide for one another (higher scores = more cohesion). The Conflict subscale measures the amount of openly expressed anger and conflict among family members (higher scores = greater levels of anger expression).

The Family Support Scale (Dunst, Jenkins, & Trivette, 1984) is an 18-item, 5-point Likert-type scale that measures the helpfulness of significant others to the participant in raising her children. Subscale scores range from 0 to 9 with higher scores indicating greater family support. This study utilized the Spouse and In-Laws subscale that measures support from spouse's parents and relatives, and the participant's spouse and parents.

## Probe Assessments

A 30-min probe assessments were initiated 2, 5, and 8 weeks after the first administration of the comprehensive battery. These assessment probes were abbreviated versions of the comprehensive assessment battery and included the Family Support Scale (Spouse and In-Laws and Own Family subscales), FES (Conflict, Cohesion subscales), and the Home Safety and Beautification Checklist.

## Pretreatment Assessment Results

Figure 1 shows results of the comprehensive pretreatment assessment. Three probe assessments and 1-month posttreatment follow-up assessment for the Home Safety and Beautification Scale, Family Support Scale, and the FES are also shown in Figure 1. Table 1 includes pretreatment assessments results for TLFB, CAPI, PSI-SF, and urinalysis.

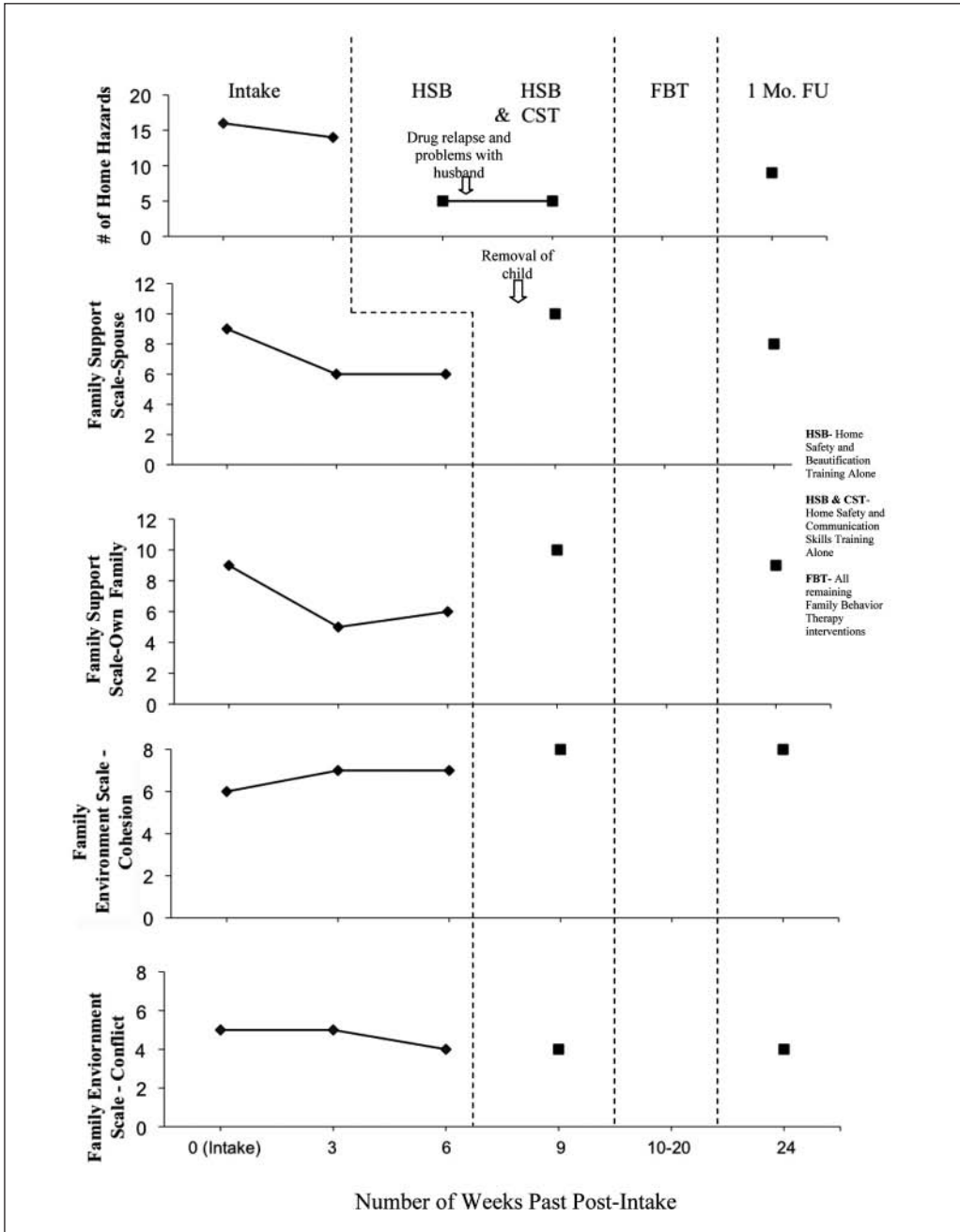
Jessica's pretreatment results on the SCID-IV indicated that she met *DSM-IV* criteria for current alcohol dependence, panic disorder, specific phobia, and generalized anxiety disorder. In addition, she met lifetime criteria for cocaine dependence and bipolar I disorder. Jessica reported on the TLFB that she had used 5 days of "crack" cocaine and 4 days of alcohol (23 alcoholic beverages) in the past 4 months, which was consistent with the positive results of the urine drug screen for cocaine. In the 3 weeks prior to treatment, Jessica reported using crack cocaine three times and drinking alcohol on one occasion.

The HS-BAT identified 23 hazards of which 16 hazards were selected to be targeted in treatment. The other 7 hazards were not included because their amelioration depended on the landlord (e.g., installation of a heater cover, fixing a broken lock on the back door). The hazards identified included accessible electrical outlets, counters, and other surfaces not clean in the kitchen; floors not clean; household items being not put away; four food groups not present; unlimited sweets; empty fridge except for condiments; air quality being stuffy and too hot; tub not clean; counters not clean in the bathroom; decorations absent from the bathroom; door trim is off and nails are accessible; floors being not clean; tub not clean; toilet not clean; lack of age-appropriate toys; and windows that would not lock.

Jessica's responses to the Spouse, In-Laws, and Own Family subscales of the Family Support Scale indicated that Jessica felt she had good support in these areas, whereas her responses to the FES indicated that Jessica's family was "conflict oriented." Thus, she perceived her family as being somewhat low in cohesion and high in conflict. Jessica also reported on the CAPI that she was experiencing problems in her familial relationships, viewing relationships as a source of pain, and having general difficulty in her social relationships.

An examination of the validity scales of the CAPI indicated Jessica's lie score was elevated, suggesting she was attempting to present herself in an overly positive manner. Her abuse score was elevated indicating her children were at risk for child maltreatment. Her scores on the distress factor suggested she was feeling frustrated, sad, lonely, depressed, worried, and "out of control."

The PSI scores indicated she was experiencing clinically significant stress within her role as a parent. Jessica's scores indicated that she had an impaired sense of parenting competency, had a conflict with her child's other parent, had a lack of social support, and was depressed. The Parent-Child Dysfunction subscales were also elevated above the 90th percentile, indicating that she felt her child did not meet her expectations and she did not find her interactions with her child reinforcing. Indeed, parents who score in this range tend to view themselves as rejected and



**Figure 1.** Examination of home hazards, family support, and family environment across baseline, treatment, and 1-month follow-up  
Note: HSB = home safety and beautification treatment; CST = communication skills training; FBT = family behavior therapy.

alienated by their children. This score suggested the bond between Jessica and her daughter was either threatened or had never been adequately established, which was consistent with behavioral observations occurring during the assessment session. These responses suggested that Jessica perceived she was not meeting the needs of her children, had a strong belief in hitting children to

**Table 1.** Pretreatment and 1-Month Posttreatment Follow-Up Results for Target Measures

Outcome measures	Time assessed	
	Pretreatment	Follow-up
SCID IV bipolar disorder (current major depressive episode)	Present	Absent
SCID IV alcohol dependence (current)	Present	Absent
SCID-IV specific phobia (current)	Present	Absent
SCID-IV generalized anxiety disorder (current)	Present	Absent
SCID-IV panic disorder (current)	Present	Absent
TLFB alcohol use	4 days	0 days
TLFB cocaine use	5 days	1 day
UA positive alcohol	Absent	Absent
UA positive cocaine	Present	Absent
CAPI problems with child and self	10	0
PSI-SF child dysfunction interaction	30 <sup>a</sup>	26
PSI-SF difficult child	33 <sup>a</sup>	23
CAPI problems with family	18 <sup>a</sup>	6
CAPI problems from others	21 <sup>a</sup>	21 <sup>a</sup>
CAPI distress	206 <sup>a</sup>	114
PSI-SF parental distress	39 <sup>a</sup>	32
PSI-SF total stress	102 <sup>a</sup>	81
CAPI abuse	288 <sup>a</sup>	198
CAPI lie	9 <sup>a</sup>	6
CAPI random responding	3	2
PSI defensive responding	25 <sup>a</sup>	20

Note: DSM-IV = *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.); SCID-IV = structured clinical interview for DSM-IV; TLFB = timeline follow-back interview, scores represent number of days of substance use during previous 4 months from time of assessment; UA = urine analysis, labels represent presence or absence of use; CAPI = Child Abuse Potential Inventory; PSI-SF = Parenting Stress Index–Short Form.

a. Denotes that raw scores of standardized scales are significantly elevated.

get them to follow rules, had a family with limited communication, perceived children as existing to meet her social or emotional needs, and tended to view children with power or independence as threatening.

## 6 Case Conceptualization

Onset of Jessica's substance abuse was triggered at an early age by significant life stressors that were exacerbated by various antecedent conditions and risk factors. Her family frequently used abusive language and violence as a method of communication. Therefore, threat of being victimized by violence or witnessing family members being victimized influenced her to be anxious and depressed, which in turn contributed to her being unable to focus on productive goal-oriented behavior (e.g., school work). She also received substantial negative feedback from her parents, who did not support her in extracurricular activities that were incompatible with substance use. Given her relatively young age, she was developmentally and physically limited in her abilities to effectively cope with these circumstances. Instead, she resorted to substance use to physiologically numb aversive feelings, and escape and avoid her parents and other authority figures perceived to be overly critical. Thus, escape and avoidance strategies were reinforced both negatively (withdrawal of aversive stimuli) and positively (peer acceptance), and led to unmonitored delinquent activities with peers who abused substances. She also lacked a number



of important skill sets, such as communication skills, that could have assisted her in the improvement of relationships with people who could assist in buffering substance use (i.e., parents, authority figures, coaches).

As she entered late adolescence, she experienced dysfunctional feelings associated with bipolar disorder, such as rapid mood swings, depression, anger, and anxiety. She also evidenced several skill deficits that led to problems with others. For instance, when she could not get her way, she reacted with aggression. Jessica reported that drug use helped her to feel more “normal and balanced.” Indeed, she reported using cocaine to reduce depressive mood swings and increase her ability to focus on completing her day-to-day responsibilities (i.e., child care, cleaning the house). In addition, when the effects of drugs wore off, Jessica reported an escalation of depressed feelings and irritability, which contributed to poor relationships and accompanying stress. Along these lines, Jessica appeared to have great insight in realizing her main triggers to substance use were experiencing negative emotions, dysfunctional thoughts, and ineffective communication skills. The intoxicating effects of substance use also resulted in her experiencing difficulties controlling her impulses and making poor decisions, including ignoring her caretaking responsibilities and engaging in activities that were illegal. When sober, she reported intense feelings of guilt and worthlessness that stemmed from her believing she was a “bad” parent. Of course, these thoughts acted to increase her level of depression and stress, and thus trigger substance use. Substance dependence acted to influence child neglect in several ways. This behavior distracted her from caretaking responsibilities and decreased her motivation to establish safety plans for her children. Child neglect was also influenced by the modeling of child neglect by her parents, having limited money to purchase safety equipment, lack of family support in safety management, and not being aware of home safety hazards and solutions.

## **7 Course of Treatment and Assessment of Progress**

### *Treatment Plan*

In FBT, the participant typically chooses the order in which FBT intervention components are implemented from a menu of therapy options. However, the primary reasons for conducting this study were to examine efficacy of the home safety and beautification intervention component. Home safety hazards were targeted first to assist in assuring the safety of Jessica’s children. Home safety was also a chief target in therapy because Jessica had received multiple referrals to CPS for safety and cleanliness issues, there were a relatively high number of identified home hazards, and home injuries are a leading cause of death for young children. Communication skills training components (i.e., communication guidelines, positive request, scheduling pleasant family activities) were subsequently targeted to decrease home conflict, increase positive exchange and support, and improve relationships in the family. It was hypothesized that by increasing positive communication exchange in the family, there would be a decrease in familial stress, through family support. Indeed, arguments lead to stress, which in turn acts as an antecedent to drugs and child neglect. Communication increases the likelihood that mothers will be able to appropriately solicit desired reinforcers, improve their familial relationships, and increase their desire to spend more time with children, which is incompatible with child neglect. Once home safety and communication skill interventions were introduced, the remaining FBT modules were initiated based on Jessica’s selection in the treatment plan, input from the therapists, and her preassessment results. Treatment implementation was successive and cumulative.

### *Study Design*

Jessica’s treatment was evaluated using a multiple baseline across behaviors experimental design. An initial baseline was established for the number of identified hazards in her home,

perceived level of family support, perceived level of family cohesion, and perceived level of family conflict. These behaviors were then monitored throughout treatment in probe assessments. One week after Jessica completed the comprehensive pretreatment assessment battery, she initiated the first of two nondirective intervention sessions occurring in 2 weeks. The baseline probe assessment occurred 1 week after her second nondirective session (2 weeks post intake). Jessica then completed 3 sessions of home safety and beautification treatment (HSB) during the next 3 weeks. The HSB probe assessment occurred 1 week after her last HSB session (i.e., 5 weeks post intake). Three sessions of communication skills training plus HSB were implemented during the next 3 weeks, with a probe occurring 1 week later (i.e., 8 weeks post intake). During the last phase of treatment, Jessica received 12 sessions of the remaining FBT interventions and the previously administered interventions during the next 12 weeks. The follow-up comprehensive battery was completed 1 month after the cessation of FBT (i.e., 24 weeks post intake).

The aforementioned design permits controlled evaluation of HSB and to some extent uncontrolled support for communication skills training and other FBT intervention components. HSB would be considered efficacious if home hazards were markedly reduced immediately after hazards were targeted, while family functioning demonstrated minimal change from Phase 1 to Phase 2. Anecdotal support for communication skills training would be found if family functioning improved after the implementation of communications skills training. Of course, anecdotal support for FBT would be indicated if there were substantial improvements in general functioning from pretreatment assessment to 1-month posttreatment assessment (i.e., follow-up).

### *Assessment of Jessica's Participation*

Jessica completed 20 sessions, with each session lasting 90 to 120 min. For most sessions, she had at least one significant other present. For 80% of the sessions, at least one child was present. Jessica's daughter-in-law, who gained temporary custody of Jessica's daughter during the course of treatment, attended the last three treatment sessions. She completed the program in 6 months (85% of scheduled sessions were completed). She was always motivated and highly compliant during treatment, as evidenced by her participation in role-plays and high rate of homework completion (90%).

### *Phase 1: Baseline/Nondirective Discussion*

*Summary of intervention provided.* Jessica's treatment began with two nondirective discussions that included information gathering regarding her report to CPS, family history, and history of mental illness and substance dependence. Jessica provided information relevant to the child neglect report; her perceptions about her referral to CPS; treatment goals, in her case plan from CPS; concerns with her caseworker; and FBT program. Jessica was provided support and empathy, and offered assistance interacting with her caseworker. During these nondirective discussions, the therapists did *not* provide advice or suggestions relevant to change in behavior. Rather, the therapist style was focused on assessing details involved in the participant's treatment plan and provision of genuine empathy.

*Summary of assessment results.* Results from the Home Safety Checklist identified 14 home hazards, which were almost identical to those identified in the initial comprehensive pretreatment assessment (see Figure 1). The Conflict subscale score on the FES remained the same from the pretreatment assessment to Phase 1 (i.e., high level of conflict in her family). On the Cohesion subscale, Jessica endorsed a slight improvement, which was not expected because the communication interventions had not been introduced at this time. The Family Support subscales showed a decrease in her perception of support.

## Phase 2: HSB

*Summary of intervention provided.* Three sessions of HSB were conducted following the two nondirective sessions. Therapists used the Home Safety and Beautification Checklist to assist in the identification of potential home hazards and cleanliness issues. This checklist assessed for home and health hazards (e.g., uncovered electrical outlets), home cleanliness and beautification (e.g., floors unclean, lack of decorations), and having materials that facilitate personal and social growth for children (e.g., age appropriate toys, books). Therapists toured the home with the family and praised the family when potential hazards were ameliorated. Jessica and her family were prompted to identify hazards and cleanliness issues for each room toured. The therapists worked with the family to immediately remedy hazards (e.g., put plugs in electrical outlets) and if this was not possible, developed a safety plan to correct the hazard by the next treatment session.

*Summary of assessment results.* Results of the assessment probe that occurred after the three HSB sessions indicated a significant improvement in home safety, stable level of perceived family cohesion, and a slight decrease in family conflict (see Figure 1). Identified home hazards and messes were reduced by 70% from baseline. As expected, results on the Family Support Scale indicated no change in Jessica's perceived support from her spouse and in laws, and slight improvement in perceived support from Jessica's own family. These findings were consistent with the hypothesized findings for this phase of the study.

## Phase 3: Communication Skills Training and HSB

*Summary of intervention provided.* Three sessions of communication skills training were administered in Phase 3, in addition to continuing to implement the home safety and beautification intervention. Communication training included three subcomponents that were reviewed successively and cumulatively. The reciprocity awareness module was implemented to increase awareness of reinforcers provided by family members and ultimately increase the rate of positive verbal exchange to lower familial stress and communication problems that often trigger drug use and child neglect. Family members listed things that others in the family had done for them that were appreciated, and after the list was developed, all family members took turns to appreciate one another. The first time this intervention was reviewed, Jessica gave her daughter a hug, and Jessica and her husband became teary eyed when they exchanged their statements with one another.

The positive request module was used to teach Jessica and her family members to solicit reinforcers in an appropriate manner. She was taught to make requests that are incompatible with child neglect (e.g., asking a family member to help her clean up the house so her daughter does not live in a dirty home) and drug use (e.g., asking friends to go someplace other than a party where drug use is present). Jessica and her husband were compliant, motivated, and did exceptionally well in role-plays. After only a few treatment sessions, improvement in communication between Jessica and her husband were observed as evidenced by more appropriate requests for support being made in session. Jessica stated feeling safe with her husband and felt able to be more open regarding her drug urges with her husband. Indeed, she was very excited to tell him she was experiencing an urge to use drugs and requested him to spend time with her to avoid drug use. Her husband reported that he was happy and surprised that Jessica shared her experiences with drug urges.

Arousal management was used to decrease negative emotions experienced in Jessica's family. Jessica and her husband were taught using role-plays to identify anger early and subsequently engage in behaviors that are incompatible with negative arousal, such as blaming the situation not the person and deep breathing.

*Summary of assessment results.* After the third session of communication skills training, scores on the Family Support Scale increased slightly from previous probe assessments. On the FES (Cohesion and Conflict subscales), there was no change from earlier probe assessments. We believe scores on the FES subscales did not improve as expected because Jessica reportedly experienced a drug relapse, and Jessica and her husband were anxious about the possible consequences of this relapse (i.e., losing custody of her daughter). As might be expected, this event led to several severe arguments between Jessica and her husband, and increased overall tension in the family. According to the Home Safety Checklist, Jessica remedied three of the five hazards that were identified in Phase 2. However, there were three new home safety and cleanliness issues discovered.

#### *Phase 4: Remaining FBT Components*

*Summary of intervention provided.* After communication skills training and home safety and beautification, the remaining FBT intervention components were implemented successively and cumulatively. Behavioral goal setting was used to assist Jessica in establishing and updating goals relevant to eliminating her presenting problems. Jessica reviewed a list of common antecedents to child neglect and substance abuse and selected generic prescribed treatment goals from a corresponding list. Jessica's goals included to keep healthy snacks in the home, avoid cigarettes, effectively manage or stop bad memories, avoid alcohol use, manage drug cravings and urges, effectively manage stress, stay busy doing things that do not involve drugs, effectively manage savings and avoid having large sums of cash easily available, stay happy and satisfied, take medications for bipolar disorder every day, and make sure her child eats three meals a day every day. Each week her husband provided support and reinforcement to Jessica for accomplishing her goals. She accomplished 90% of her goals during this phase.

The stimulus control module was used to teach Jessica to identify safe and at-risk situations, and to avoid people, places, and situations that put her at risk to use drugs, make it difficult for her to effectively manage her kids, and increase her risk of getting HIV. Jessica demonstrated understanding of her drug triggers but lacked skills to control or avoid triggers once they were identified. Jessica and her significant others were asked to list as many people, places, and situations that influenced her to take drugs in the past. Her list included the following: various friends, relatives, her drug dealer, getting angry, arguing, drinking alcohol, being sad, having lots of cash, and being home alone. Jessica was then asked to make a safe list that included people, places, and situations that had not involved drug use. This list included spending time with her children, shopping, taking the children to events, eating out, going bowling, going to the movies, talking walks, and family gatherings. Every week the list was reviewed to assess how Jessica was able to cope with risky situations and how she was able to increase time spent in safe situations. Initially, Jessica's risk list had more people and situations than on the safe list. However, Jessica made significant progress eliminating people and places that put her at risk to relapse by using skills she learned in the FBT program to eliminate her drug urges, including planning time with safe associations. By the end of treatment, Jessica's environment included only a few people, places, and situations that were on her at-risk list. In addition, she had added multiple new safe items, including a job, going to church, and new hobbies such as taking walks on the weekends. She indicated that her time spent with safe situations permitted her to relax and spend more time focused on positive events that decreased her anxiety.

In basic necessities, Jessica reviewed a list of potential problems that threatened the safety and well-being of her family, such as not being able to pay bills or rent, substance use, absence of healthy foods, and domestic violence. She indicated if these things were present or might soon occur. If an item was endorsed, Jessica and her husband engaged in problem solving to manage the issue, including utilization of other FBT components. During treatment, one instance of

domestic violence was endorsed (Jessica indicated her husband had been removed from the home after she called police to report the incident). Jessica reported that her husband had struck her in the face when they were intoxicated and were upset that they had lost custody of their youngest daughter due to her drug relapse. After this incident, she indicated that she wanted to divorce her husband. The therapist used communication skills training to facilitate an open and compassionate dialogue aimed at helping Jessica to be more open about her drug triggers and to solicit support from her family. Her husband was taught to use anger management strategies, and both were told violence is unacceptable and if done in front of children necessitates a report to CPS.

Child management skills were used to assist Jessica in learning strategies to be more consistent in her disciplinary methods and improve her daughter's compliance. Jessica was taught to descriptively praise her children through modeling, role-playing, and during in vivo interactions with her child during sessions. She was assigned to practice "catching her child being good" and to ignore undesired behavior that did not result in damage to property or harm to self or others in between sessions. Since the child had been removed from their custody, the child's guardian agreed to bring her daughter to the sessions so they could practice these skills. There was significant improvement observed in Jessica's ability to make positive statements to her daughter and teach her desirable behaviors. She indicated that she felt more competent as a parent, which reduced her frequency of derogatory thoughts relevant to being a "bad" parent.

Financial management was used to address Jessica's goal of more effectively managing her finances. First, a list of Jessica's monthly expenses was created to identify deficits or surplus. The therapist used problem solving to assist her in brainstorming solutions to increase income and decrease expenses. She also brainstormed other methods of increasing family income such as reducing excess spending and getting a job. To assist Jessica to gain employment, "job-getting skills training" was used to teach her to initiate calls to potential employers and skills for successful job interviews. Jessica did extremely well in the role-plays in session and was able to obtain two job interviews within 2 weeks. Both Jessica and her husband reported a reduction in financial stress at the end of treatment due to her obtaining a full-time job. She also reported that money management skills helped her feel more secure and confident.

The self-control module was introduced after the removal of Jessica's daughter from the home. This intervention was used to teach Jessica to control impulses that increase the likelihood of using drugs and making rash decisions when managing children. It was also taught as a coping strategy for anger and anxiety. Jessica and her husband were taught to recognize the first thought to engage in undesired behavior, use thought stopping to terminate the undesired thought, rehearse negative consequences that could occur if the undesired behavior were to occur, briefly relax, problem solve, and imagine positive consequences associated with selection of alternative behaviors. They both demonstrated great effort to learn this skill as evidenced by their eagerness to practice this skill during sessions.

## 8 Complicating Factors

Jessica initiated treatment with a high level of motivation as evidenced by her consistent attendance and high compliance ratings. However, she experienced a lapse in motivation after her drug relapse. Therapists reacted to the relapse with empathy and taught her to recognize early triggers to substance use. She was taught to use the self-control intervention when she experienced anxiety or was upset with her husband and settle her disagreements with the positive request intervention. Motivation was also enhanced by encouraging her to choose the goals she wanted to focus on during each upcoming week and having significant others provide her rewards for accomplishing her goals.

Jessica experienced another lapse in motivation after her daughter was removed from her custody. She reported feeling “defeated” by her drug use and dissolution in her marriage. The therapist empathized with her concerns and assisted her in refocusing her efforts on learning strategies that would increase her chances of regaining custody of her child. She was taught to reframe this event as a “blessing in disguise” because it increased her motivation and permitted her ample time to “get her life together.” The participant was fortunate to have a family member who was willing to take care of her daughter and attend FBT sessions, which improved consistency of child management between these households. Legal issues were a concern, as her caseworker was primarily responsible for making sure Jessica’s children were safe. After her drug relapse, the caseworker recommended termination of parental rights to Jessica’s judge, whereas the therapist recommended that Jessica should be given a chance to regain custody of her children if she continued to participate actively in treatment. It was recommended that custody be contingent on behaviors that could be objectively observed, such as participating in role-plays, completing homework assignments, and attending sessions. The therapist mentioned relapses are common in drug dependence, particularly initially in treatment. The judge agreed with the therapist, and Jessica’s motivation for therapy improved.

Given her history of bipolar disorder, ensuring stability of mood was an important consideration in her treatment. She had been prescribed medications by her physician for the treatment of bipolar disorder prior to the onset of FBT. Because compliance with medications is often poor in individuals with bipolar disorder and other severe and persistent mental illnesses, medication compliance was identified as a behavioral goal at the beginning of FBT. This goal was monitored at each of the FBT treatment sessions, and Jessica was compliant with her medications throughout the treatment, taking medications each day as prescribed.

## 9 Follow-Up

The comprehensive follow-up battery was conducted at Jessica’s residence approximately 1 month after cessation of FBT (i.e., 24 weeks post intake). Results were generally very positive. For instance, Jessica was employed full-time, and her results on the SCID-IV indicated that she did not meet current criteria for any *DSM-IV* diagnoses. On her TLFB, Jessica reported 1 day of alcohol use and 1 day of “crack” cocaine use during the 6 months she was in treatment, which was supported by urinalysis testing.

As assessed in the 1-month posttreatment follow-up HS-BAT, nine home hazard items were endorsed, with most of these being related to cleanliness (see Figure 1), such as unclean floors and counters. Jessica reported the issues were the result of her being ill. However, another possibility is that Jessica was not as concerned with child safety since her daughter had been removed from her home. She reported a slight reduction in family support (see Figure 1). This may have been due to less involvement from other family members because therapy was over, or due to her busy work schedule, Jessica did not spend as much time with her family. Nevertheless, although these subscales were slightly lower than they were prior to treatment, they were still indicative of high levels of perceived social support. Scores on the FES indicated no changes in perceived cohesion or perceived family conflict. However, it should be mentioned that both perceived family cohesion and conflict were not elevated.

The CAPI validity scales indicated that she approached questions in an open and honest manner (see Table 1). Jessica’s distress scores were below clinical levels suggesting she was not feeling frustrated, sad, lonely, depressed, worried, or out of control. The Rigidity subscale was elevated, indicating she felt children need strict rules and should follow those rules. Her Problems With Family subscale score was not elevated, indicating Jessica was not experiencing problems in her familial relationships. Problems From Others subscale was elevated as compared

with baseline, perhaps due to her negative interactions with caseworkers and judges. Indeed, Jessica often expressed frustration with her current case manager. Jessica's score on the Mother–Child Neglect Scale did not indicate neglectful parenting behaviors. Her responses to the PSI indicated that she perceived her parenting competencies were improved, was less depressed, found interactions with her daughter were more reinforcing, and experienced an improved bond with her daughter.

## 10 Treatment Implications of the Case

This case study permitted a controlled evaluation of the effectiveness of the home safety and beautification intervention. Indeed, this intervention appears to offer great promise in decreasing home hazards and increasing home cleanliness in families with co-occurring substance abuse and child neglect. Implementation of communication skills training was associated with slight initial improvements in family support, while levels of family conflict and cohesion were maintained at nonclinical levels. Jessica reported that being monitored by CPS was very stressful, supporting the contention that greater discussion of anxieties associated with CPS may have been helpful in reducing her stress level. Relevant to other subscales measuring family functioning, such as the CAPI, Jessica reported experiencing significantly less problems with her family at the follow-up relative to her pretreatment assessment. Assessment results demonstrate that the FBT program assisted Jessica in the cessation of alcohol and crack cocaine, as evidenced by urinalysis testing and self- and significant-other reports. Importantly, Jessica's parental stress, perceived bond between her and her daughter, and child abuse potential were no longer clinically significant according to standardized measures. Although treatment was designed specifically for child neglect and substance dependence, this study anecdotally supports the efficacy of FBT in substance abusers evidencing other comorbid mental health problems, including domestic violence, panic disorder, and generalized anxiety disorder. One month post treatment, she no longer met current *DSM-IV* criteria for mental health disorders according to the SCID, and there was no indication of domestic violence and child neglect. Therefore, this case study provides some support for the robustness of FBT in working with complicated cases involving domestic violence.

## 11 Recommendations to Clinicians and Students

Results of this case trial, although generally positive, suggest there is much work to be done when implementing evidence-based treatments in complicated cases within the umbrella of child welfare. As with Jessica, many of the women referred from CPS evidence underlying mood disorders that are masked by illicit behaviors because these problems do not overtly draw attention from others. Without comprehensive assessment, many of these underlying issues will go unrecognized, particularly when the referred individuals are motivated to deny psychopathology. Training students in evidence-based assessment and treatment practices that have been explicitly developed to manage severe concurrent disorders, such as FBT, will certainly assist in this endeavor. However, in traditional classroom settings, these skills are difficult to teach. Integrating them with concurrent formalized practicum experiences in which to practice evidence-based treatments may act to complement their training.

### Declaration of Conflicting Interests

The second, fourth and last authors declared that they have received financial reimbursement in the past for their time training community-based agencies in FBT. The second author disclosed this potential conflict of interest to the University of Nevada, Las Vegas consistent with federal guidelines. The second and last authors declared that they may receive royalties from a publishing company in the future for a book they recently completed about FBT.

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