

FINAL PROGRAM EVALUATION REPORT
FOR
META HOUSE'S
“PRESERVING AND REUNITING FAMILIES IN RECOVERY”
Grant #TI019589

Prepared for:
The Center for Substance Abuse Treatment
Substance Abuse and Mental Health Services Administration

March, 2012

Prepared by:
Planning Council for Health and Human Services, Inc.
Lisa Larson, Ph.D.
Erin Malcolm, M.A.P.S.

With Assistance from:
Meta House
Andrea Jehly, M.S. and Jessie Kushlan



1243 North 10th Street, Suite 200 Milwaukee WI 53205
(414) 224-0404 FAX (414) 224-0243 www.planningcouncil.org
Member of the National Association of Planning Councils

Table of Contents

EXECUTIVE SUMMARY	i
INTRODUCTION	1
The Meta House Treatment Model and the PRFR Program.....	1
Data Collection	2
Data Analysis and Limitations	3
PARTICIPANT DESCRIPTIONS	5
Description of the Women Participating in PRFR.....	5
Description of the Women Interviewed at Six Month Follow-Up	11
SIX MONTH INTERVIEW FINDINGS	13
Alcohol / Drug Use and Recovery	14
Mental Health and Treatment.....	18
Family Functioning.....	24
Quality of Life.....	33
Effects of Maternal Substance Use	35
References	42
Appendix A: Representativeness of Women Followed Up at Six Months	
Appendix B: Adjusted Days of Alcohol and Drug Use	
Appendix C: Exploration of Pre-Post Results on the DDST-II	

The Planning Council would like to acknowledge the many individuals who played a role in the Preserving and Reuniting Families in Recovery (PRFR) program and in the creation of this report. Thanks to Andrea Jehly, Meta House's internal Research and Evaluation Coordinator whose expertise, commitment, and oversight were critical to the successful implementation of the evaluation. Jessie Kushlan, Meta House's lead interviewer on the PRFR project, and Sidnee Smith, the PRFR project's "back-up interviewer", were instrumental in creating an interview environment and ongoing relationships that supported women's willingness to participate and the collection of accurate data. Thanks are also extended to the Meta House staff who collected data from women and children, supported the evaluation through routine documentation, and made use of the preliminary findings on an ongoing basis. Special thanks to Dr. Francine Feinberg, PRFR Project Director and Meta House's Executive Director, for her leadership and support throughout the project, and her ongoing commitment to making use of evaluation data to inform program design and improvement. Finally, the evaluation team would like to express their immense appreciation to the women and families who participated in the PRFR program, for their willingness to share their stories and contribute information to assist the program and the field of substance abuse treatment. Funding for the PRFR program was provided by a Substance Abuse and Mental Health Services Administration Residential Treatment for Pregnant and Postpartum Women (PPW) services grant (Grant #TI019589).

EXECUTIVE SUMMARY

This report describes the program evaluation results for Meta House's Preserving and Reuniting Families in Recovery (PRFR) program, a residential substance abuse treatment program for women who were pregnant or postpartum. The PRFR program was funded from September, 2008 through September, 2011 by the Center for Substance Abuse Treatment, a center of the Substance Abuse and Mental Health Services Administration (SAMHSA) through a Residential Treatment for Pregnant and Postpartum Women (PPW) services grant (TI# 19589).

SAMHSA's PPW program required that each of its funded grantees connect their program efforts with five overarching goals. As a result, the PRFR program's goals paralleled the PPW goals and were designed to:

- Improve women's level of functioning related to substance use and sobriety (which connected with the PPW goal to decrease the use and/or abuse of prescription drugs, alcohol, tobacco, illicit, and other harmful drugs among pregnant and postpartum women);
- Improve women's mental health and physical health functioning (PPW goal: improve the mental and physical health of the women and children);
- Improve family functioning and quality of life (PPW goal: improve family functioning, economic stability, and quality of life);
- Support women's lack of involvement in criminal activities (PPW goal: decrease involvement in and exposure to crime, violence, sexual and physical abuse, and child abuse and neglect); and
- Increase healthy pregnancies and improve birth outcomes (PPW goal: increase safe and healthy pregnancies, improve birth outcomes, and reduce related effects of maternal drug abuse on infants and children).

Evaluation data was gathered to address the PRFR program's progress towards meeting these goals. Structured interviews were conducted with women at entry into the program and again approximately six months later. The interviews included the questions required by the Government Performance and Results Act (GPRA), local evaluation questions based on the Addiction Severity Index (ASI; McLellan et al., 1980), and administration of the Behavior and Symptom Identification Scale – 24 (BASIS-24; Eisen et al., 2004) and the Ferrans and Powers Quality of Life Index (QLI; Ferrans & Powers, 1985). In addition to the interviews with the PRFR women, a variety of information was gathered about their children including birth outcomes, demographics, child placement, and potential developmental challenges identified by the Denver Developmental Screening Test (DDST-II; Frankenburg et al., 1996).

The present report summarizing this data was prepared by the Planning Council for Health and Human Services, Inc., the external evaluators for the program. The Planning Council is a private, non-profit organization whose mission is to advance community health and human services through objective planning, evaluation, and research. The implementation of the program's evaluation was the joint responsibility of the Planning Council's external evaluation team and Meta House's internal evaluation department.

The report describes: 1) the full set of women admitted to the PRFR program, including demographic and program retention information and 2) the challenges and outcomes experienced in each of the five areas addressed by PPW funding, focusing on the women who were followed up approximately six months after their entry into the program.

The Women Served

A total of 110 women were admitted to the PRFR program, all of whom were mothers (91%) and/or were pregnant at the time of admission (62%). The women served by the program were in their late 20's (mean age = 28), and were generally African American (48%) or Caucasian (41%). At the time they were admitted to the program, all were unemployed, although most (86%) did have some type of income, typically in the form of public assistance. Approximately half of the women had graduated from high school or earned their GED. In addition, some had recent involvement with the criminal justice system (e.g., 22% had spent time in jail in the month prior to their admission).

Women admitted to the PRFR program had a full continuum of care available to them at Meta House, including residential treatment, day treatment, and outpatient treatment. Overall, the women's mean length of stay in the residential treatment component was approximately three months. However, the residential length of stay decreased during the third year of the grant due, according to the program, to changes in Milwaukee County's system for authorizing and funding treatment services (the system which partially funded most PRFR women's treatment).

Women were considered to have graduated from the residential program if their counselors indicated that they had successfully completed or that they had completed with substantial improvement. Approximately three-quarters of the enrolled women graduated from the program. After being discharged from residential treatment, approximately 70% of the women went on to participate in Meta House's continuum of care. Overall, the PRFR women's combined length of stay in residential, day treatment, and outpatient services was approximately five months.

Of the 110 women admitted to the program, 93 women became eligible for a six month follow-up interview during the data collection period. A total of 82 women completed the six month interview, resulting in a follow-up rate of 88%. Overall, it appears that the high follow-up rate assured that the women interviewed were reasonably representative of the larger population served by the program in terms of their demographics, length of stay in treatment, and graduation status.

This report summarizes data on substance use, mental and physical health, family functioning and quality of life, and criminal justice involvement for the 82 women who completed a six month follow-up interview.

Substance Use

Approximately three-quarters of the women who participated in both the initial and follow-up interviews had substantial histories of alcohol and drug use (e.g., more than five years of regular cocaine/crack use, regular use of more than one substance per day in their lifetime, etc.). In addition, in the 30 days prior to the initial interview, 76% of the women were actively using alcohol, drugs, and/or potentially addictive prescription medications. The primary substances used included alcohol, cocaine/crack, and marijuana, use which was consistent with the use seen in the population typically served by Meta House. However, a relatively new development was the level of heroin use, with almost 30% of the PRFR women reporting regular heroin use in their lifetime and approximately 15% having used heroin in the 30 days prior to entering treatment.

Along with this increase in opioid use was a growth in the use of potentially addictive prescription medications. Almost 45% of the PRFR women had used medications such as Percocet, benzodiazepines (e.g., Valium), or methadone in the month before entering treatment. Some women (27%) had used these medications with a prescription (with some medications prescribed as part of opioid addiction treatment). However, others (17%) had used medications without a prescription and many women overall indicated that they had used similar medications without a prescription in the past.

Despite this change in the substance use pattern among the population served, the evaluation data suggests that the PRFR program was successful in meeting its goals of decreasing substance use and improving women's level of functioning with respect to their recovery. Specifically, there were highly statistically significant decreases in the number of days of substance use between the time of the initial interview and the time of the six month follow-up interview (including use of alcohol, cocaine/crack, heroin, illegal drugs, and more than one substance on the same day).

In addition, at the time of the follow-up interview, a full 78% of the women had used neither alcohol nor illegal drugs in the 30 days prior to the interview. While some of these women (approximately 30%) were using potentially addictive medications with a prescription (e.g., methadone, sedatives, benzodiazepines, and partial opioid agonists such as Suboxone), all were engaged in substance abuse treatment at the time. As a result, it is likely that these medications were prescribed to alleviate symptoms of withdrawal and prevent potential use of illegal substances.

Finally, it should be noted that most of the women (81%) were still engaged in substance abuse treatment at the time of the six month follow-up interview, including some who were in residential treatment. Engagement in treatment represented a continued commitment to recovery (particularly for the women who had relapsed). However, for those women who were in residential treatment at the time of the interview (39%), it is difficult to assess their ability to remain abstinent outside of a controlled environment.

Mental and Physical Health

For women in substance abuse treatment, trauma histories, mental health symptoms, and substance use are often intertwined. Almost all of the PRFR women (93%) reported to their counselors that they had experienced some form of emotional, physical, and/or sexual abuse over the course of their lifetime. For example, approximately 90% of the women had experienced physical abuse at some point in their lifetime, approximately half had been sexually abused as a child, and approximately half had been sexually assaulted as an adult.

Integrally connected to these past trauma experiences, many women were also experiencing significant mental health issues in the month prior to the initial interview. Approximately three-quarters of the women reported significant mental health symptoms, ranging from serious depression to suicidal ideation. For the women who were experiencing symptoms, they were often pervasive. For example, half experienced mental health symptoms daily in the month prior to the initial interview. Although many of the women were clearly experiencing mental health issues at intake, only about 40% had received treatment and/or had taken medication for these problems in the month prior to the interview.

The evaluation data suggests that the PRFR program was successful in meeting its goal of improving women's mental health functioning. There were statistically significant pre-post decreases in the number of days that women experienced mental health symptoms and in the number of different symptoms they reported. A statistically significant pre-post decrease was also apparent in the women's overall symptom and problem difficulty (as measured by the BASIS-24). Finally, statistically significant improvements were seen in daily functioning and depression symptoms, relationships with others, and problems related to substance abuse (as measured by the BASIS-24 subscales).

By the time of the six month interview, approximately half of the women were not experiencing any significant mental health symptoms. Those women who did have symptoms generally were not experiencing severe symptoms and most were participating in mental health treatment and/or were taking psychiatric medication, suggesting appropriate self-care.

The available information on women's experience of their physical health also suggests improvements over time. There was a statistically significant pre-post improvement in women's perceptions of their health and functioning (as measured by the QLI). This suggested that women were more positive at follow-up about their physical health, leisure activities, functioning in daily life, and attitudes about the future. However, given the limited information collected about physical health, it is difficult to know whether these changes in perception translated into improved physical functioning for the women.

Family Functioning and Quality of Life

An array of issues influence a family's level of functioning, many of which are interconnected with substance use. The data collected in this area addressed the challenges and progress women experienced related to economic self-sufficiency, housing, social support, and resuming their parenting role. In addition, information was available on women's perceptions of their quality of life over time.

Economic Self-Sufficiency

The women who participated in the PRFR program faced significant challenges related to economic self-sufficiency. Half of the women had a high school education, but very few had a substantial job history that might help them on the road to future employment. In addition, in the month prior to the initial interview, none of the women had been actively employed.

Because the PRFR program served pregnant and postpartum women, vocational education and employment-oriented services were not a primary initial focus of treatment. However, the program did work towards connecting women with community services and appropriate sources of income. The evaluation data suggests that the program was successful in assisting women in this area, as there was a significant pre-post increase in women's total monthly income.

Despite this pre-post increase in income, women's annual income remained quite low (at an average of approximately \$8,000 per year) and most of the women (85%) had no regular full time or part time employment at follow-up. The data suggested that women were continuing to focus on treatment and parenting at the time of the follow-up interview, rather than on education and employment. However, it is

clear that self-sufficiency will be a long-term challenge for these women. It is recommended that the program continue to work with women to identify appropriate resources and make progress towards vocational goals during the continuum of care.

Housing

Along with economic self-sufficiency challenges, the PRFR women experienced the challenge of housing instability. Most of the women (90%) had experienced some form of unstable housing in their lives, including many (81%) who were experiencing housing instability immediately prior to entering treatment.

By the time of the six month interview, some of the women (38%) had secured more stable housing (e.g., were living in their own apartment). However, approximately 40% of the women were in living in residential treatment for most of the month prior to the follow-up interview. While these women were safely housed, all will eventually have to secure more permanent living arrangements upon their discharge from residential treatment.

According to the PRFR program's staff and administration, there is a significant shortage of affordable, drug-free housing in the Milwaukee community. Linkages have been established with numerous local agencies in an effort to facilitate access to independent housing for program participants. It is recommended that the development of these and other linkages continue, including connections with groups advocating for increased safe and affordable housing in the community.

Social Support

Despite their substantial histories of substance use and the numerous other challenges they faced upon entering treatment, the PRFR women reported that they had supportive people in their lives. At both the initial and the follow-up interviews, approximately 95% of the women indicated that they had interactions with family or friends who were supportive of their recovery. In addition, virtually all of the women at both points in time were able to name at least one person who they could turn to for support (most commonly family members and significant others). This level of social support is a strength that the PRFR program has reportedly tapped in its work with the women (e.g., the program engaged 324 extended family members in its programming during the course of the grant). These efforts further connect natural supports to the women's recovery progress, potentially assisting in relapse prevention.

Resumption of Parenting Role

At the time of the initial interview, approximately three-quarters of the women had one or more minor children who were not living with them, due to a formal placement (65%) and/or to an informal arrangement with family or friends (55%). For some children, a return to their mother's care was neither possible nor in the child's best interest (e.g., due to termination of parental rights, a long-term living arrangement with a caregiver, etc.). However, the PRFR program's goal was to support women in their parenting roles and, if possible, to assist them in being reunited with their children.

At the time of the six month interview, 30% of the women whose children had been living with someone else had at least one of her children returned to her care, either as the sole caregiver or under joint custody with the child's father. In addition, 74% of the women who gave birth in the time between their initial and follow-up interviews had their babies in their care at the time of the six month interview. It is important to note that most of the women who were caring for their newborn babies at follow-up had experiences of disrupted parenting with their older children (including a small number who had had a previous termination of parental rights).

As women resume (or prepare to resume) their parental role with respect to their children, it is important that they provide a non-using family environment (including refraining from use themselves and living with others who are not using). At follow-up, three-quarters of the women were providing an alcohol and illegal drug-free environment for children who were living with them and/or for visiting children.

Quality of Life

Given that the PRFR women were experiencing significant challenges in multiple areas of their lives, it is likely that they were experiencing a relatively poor quality of life in a variety of domains. Between the time of the initial and the follow-up interviews, there was a statistically significant pre-post increase in women's perceptions of their overall quality of life (as measured by the QLI). There were also statistically significant

improvements in women's quality of life in the areas of health and functioning, social and emotional support, personal fulfillment and spirituality, and family life (as measured by the QLI subscales). It is important to note that although women's perceptions of their social and economic quality of life increased over time, this remained the lowest area measured at follow-up. This finding is consistent with the limited employment, education, and income levels at follow-up.

Criminal Justice Involvement

At the time of the initial interview, most of the women (84%) were either involved with the criminal justice system or had engaged in illegal activities in the past month (including the use of illegal drugs). By the time of the follow-up interview, the evaluation data suggests that the PRFR program was successful in meeting its goal of supporting women's lack of involvement in criminal activities. For example, while approximately 60% reported having committed a crime in the month prior to the initial interview, only 15% reported criminal activity in the month prior to the follow-up. Similarly, while approximately one-quarter of the women had spent time in jail in the month prior to the initial interview, only a small number had been in jail in the month prior to the follow-up. Overall, the data suggests that the majority of women appeared to have avoided new involvement with the criminal justice system by the time of the six month follow-up.

Effects of Maternal Substance Use

Information about the children of the PRFR women was collected at various points in time and using a variety of methods. As a result, the available data was gathered on different subsets of the children. Together, however, the data provide a fuller picture of the children than has previously been available to the program or in the literature.

The 110 women admitted to the PRFR program had given birth to a total of 316 children at the time of their admission to the program. At that time, approximately half of the children were under the age of six, approximately 40% were between the ages of six and 17, and approximately 10% were adults. Mothers reported that approximately one-third of their children had tested positive for substances when they were born and approximately one-quarter had required intensive medical care after birth. In addition, mothers indicated that a number of their children had experienced some form of trauma (e.g., 30% had witnessed violence) and over half had been removed from their mother's care at least once in their lifetime.

A subset of the women's young children (ages 0 to six) was screened for developmental concerns with the DDST-II. Approximately 55% of the children screened had scores suggesting "Normal" developmental progress. The area in which the most children (48%) seemed to have difficulty involved fine motor skills such as hand coordination and manipulation of small objects. Only a small number of children (n=19) were screened at both intake and a three month follow-up. However, an exploratory analysis suggested that approximately two-thirds of those children either maintained a "Normal" result or had results that had improved over the three months.

At the time of their mother's admission to the program, approximately 10% of the minor children were living with their mothers. By the time of the mother's six month follow-up, approximately one-quarter of the children who were living with someone else had been returned to their mother's care. As a result (focusing just on children who could legally have been returned), at the follow-up interview approximately 30% of the children were living with their mothers, approximately 45% were in formal placements due to a child protection court order (30% with family or friends and 15% with a non-relative), and approximately 25% of the children were living informally with family or friends. It should be noted that, for some children, a return to their mother's care was neither possible nor in the child's best interest. Further, women most likely continued to have some involvement in their children's lives even when they were not parenting. For example, at intake women reported that they were involved with three-quarters of the children who were not in their care (e.g., through visits, phone calls, etc.).

The level of father involvement is also notable. Mothers reported that approximately 80% of the children were not living with their biological fathers. However, the women indicated that approximately half of these children had fathers who were involved in their lives in some way (e.g., visits, phone calls, etc.). The women also reported, however, that approximately 40% of their children had fathers who themselves had a substance abuse problem. The PRFR program has increasingly begun to involve fathers and father figures in the women's treatment and particularly in their work with children. It is recommended that these

efforts continue, as they clearly have relevance for the family as a whole and for children's long-term outcomes.

Finally, at the time of the initial interview approximately 60% of the women were pregnant. All of these women received prenatal care during the time that they were in the PRFR program. Birth outcome data for babies born during the time that women were in treatment suggests that approximately 80% of the babies were born within the normal birth weight for their gestational age. Further, approximately 85% of the babies tested negative for alcohol and illegal substances at birth. At the time of the follow-up interview, approximately 70% of the babies that had been born since intake were living with their mothers.

Overall, the evaluation data indicates that the PRFR program was successful in meeting its goal of supporting healthy pregnancies and positive birth outcomes. In addition, it appears that through the course of their treatment, many of the women were either able to resume their parenting role with respect to their children or maintain some level of involvement in their lives. The available information suggests that many of the children had already experienced some challenges in their lives, including caretaking disruptions, exposure to trauma, and/or the possibility of developmental delays. The data supports the PRFR program's long-standing focus on direct services to children and its newly expanded efforts towards working more extensively with children who have experienced trauma.

Conclusions

The findings suggest that Meta House's Preserving and Reuniting Families in Recovery residential treatment program experienced considerable success in working with pregnant and postpartum women. The women experienced numerous challenges as they entered the program including lengthy substance abuse histories, histories of traumatic experiences, mental health symptoms, financial and housing instability, criminal justice involvement, and an overall poor quality of life. In addition, the women's children also experienced multiple challenges.

The findings from a six month follow-up with these women suggest that significant and meaningful improvements were apparent among the women who participated in the program. Specifically, the data indicates that the program was successful in meeting its goals of:

- Improving women's level of functioning related to substance use and sobriety;
- Improving women's mental health and physical health functioning;
- Improving family functioning and quality of life;
- Supporting women's lack of involvement in criminal activities; and
- Increasing healthy pregnancies and improving birth outcomes.

However, the successes experienced by women who participated in the PRFR program are qualified by the following areas in which they may need additional support:

- While most women were abstinent from alcohol and illegal drugs, some were still in residential treatment at the time of the six month follow-up. It will be important to support these women as they transition to maintaining their recovery while no longer in a controlled environment and work to locate appropriate housing.
- The increases documented in income did not translate into meaningful or practical improvements in self-sufficiency; i.e., at follow-up, the total income received by most women would not be considered sufficient to support themselves or their families. As women continue in later stages of treatment, it will be important to assist them in identifying financial resources and making progress towards vocational goals.

Finally, the findings regarding the PRFR women's children support the program's efforts to provide parenting services, to work directly with the children, and to engage fathers, father figures, and extended family members as supports for both the children and for the women. As Meta House continues its work with pregnant and postpartum women, the successful outcomes from the PRFR program can continue to inform and enhance the services provided to women, children, and their families.

META HOUSE'S PRESERVING AND REUNITING FAMILIES IN RECOVERY PROGRAM: INTRODUCTION

This evaluation report was prepared by the Planning Council for Health and Human Services, Inc., the external evaluators for Meta House's Preserving and Reuniting Families in Recovery (PRFR) project. The Planning Council is a private, non-profit organization that has provided independent information, research, and planning to the Southeast Wisconsin community for over 45 years. The Planning Council's mission is to advance community health and human services through objective planning, evaluation, and research. The implementation of the PRFR program's evaluation was the joint responsibility of the Planning Council's external evaluation team and Meta House's internal evaluation department. The Planning Council team was responsible for providing training, supervision, and monitoring for data collection; conducting the data analysis; and authoring the final report. The Meta House internal evaluation team was responsible for conducting interviews with PRFR clients; managing and entering the quantitative data; and providing formative feedback to the program.

The report summarizes three years of program evaluation results for the Preserving and Reuniting Families in Recovery program (TI# 019589), a residential substance abuse treatment program for women and their children. The report describes: 1) the women who participated in the PRFR program; 2) the challenges faced by the women as they entered treatment; 3) pre-post changes that occurred in the six months following their admission to the program; 4) women's level of functioning approximately six months after admission; and 5) the women's children, including the challenges they faced, their living arrangements, and birth outcomes for newborns.

The Meta House Treatment Model and the PRFR Program

Meta House has been treating women with substance use disorders in Milwaukee, WI, since 1963. Its mission is to help women struggling with drug and alcohol addiction to reclaim and transform their lives and to rebuild their families by offering a range of prevention, treatment, and support services for women and their children. Meta House's programs are designed to address the effects of substance abuse in ways that are culturally competent and clinically effective and meet the unique needs of each woman and her children to strengthen family relationships and end the generational cycle of substance abuse.

Meta House bases its treatment model on a culturally sensitive and gender responsive treatment philosophy. Traditional treatment for substance use disorders shaped its theories based on the needs of Caucasian men who were the majority of people seeking treatment. Large numbers of women have entered the field of psychology and new theories have evolved that are based on women's life experiences. These theories suggest a different process of ego development for women. The intervention approach used at Meta House is rooted in the distinctive characteristics of the female physiology and women's roles, socialization, and relative status within the culture. Meta House derived this model based on the relational-cultural theory of female development which proposes that emotional growth and development is organized around making and maintaining affiliations and relationships. In addition, recognizing the impact of sexual and physical abuse and its association with substance abuse in women, Meta House has embraced a trauma-informed approach.

Meta House's Preserving and Reuniting Families in Recovery (PRFR) program was funded from September of 2008 through September of 2011 by the Center for Substance Abuse Treatment (CSAT), a center of the Substance Abuse and Mental Health Services Administration (SAMHSA), through a Residential Treatment for Pregnant and Postpartum Women (PPW) services grant. The PRFR program was developed to serve pregnant or postpartum women with substance use disorders, including their children and other family members (e.g., extended family, children's fathers, etc.). Women in the PRFR program received treatment in a residential setting, often with one or more of their children residing in the facility with them. The women, all her children, and other family members had access to a variety of treatment and supportive services. As treatment progressed, women had a full continuum of care available to them at Meta House (e.g., day treatment, outpatient treatment, after care, etc.).

The services provided by the PRFR treatment program were based in Meta House's gender-responsive, trauma-informed model and included: case management; individual, family, and group therapy; direct services to children; medical and prenatal care; programming designed specifically to support women's functioning as mothers; and education and support to women's significant others and other family members. The overall treatment model included a number of evidence-based practices (e.g., Gender Appropriate AODA Treatment and Education for Women and Children; Comprehensive Case Management for Substance Abuse Treatment, Motivational Interviewing, Stages of Change, etc.). In addition, the PRFR program included several additional evidence-based practices to directly address the goals of the PPW funding: Prenatal Care Concurrent with Substance Abuse Treatment, Seeking Safety, and the Nurturing Program for Families in Substance Abuse Treatment and Recovery.¹

The PRFR program was focused on assisting pregnant and postpartum women, children, and their families, with the goals of: 1) improving women's level of functioning related to substance use and sobriety; 2) increasing healthy pregnancies and improving birth outcomes; 3) improving women's mental health and physical health functioning; 4) improving family functioning and quality of life; and 5) supporting women's lack of involvement in criminal activities. In meeting these goals, the program strived to reduce the long-term effects of maternal substance abuse on infants and children.

Data Collection

The Government Performance and Results Act (GPRA) requires funded programs to collect and report specific data about program participants. In addition, initially the 2008 cohort of grantees funded by SAMHSA's PPW initiative participated in an extensive cross-site evaluation, with local evaluation efforts focused around the common protocol of cross-site measures. Although SAMHSA discontinued this cross-site evaluation at the end of the first year of the grant, the PRFR program continued to implement a subset of the original cross-site measures to support local evaluation questions and interests. Data collection was conducted with women enrolled in residential treatment, as well as with infants and children.²

Women's Data Collection

Meta House's internal evaluation research assistants conducted face-to-face interviews with clients at initial assessment, six months after the initial assessment interview, at discharge from the program, and six months after discharge from the program. In addition to the required GPRA questions, each of the interview points throughout the three years of the grant also included data collection to support the cross-site and local evaluation questions. Specifically, the women's evaluation interviews included: GPRA questions supplemented by additional questions based on the Addiction Severity Index (ASI; McLellan et al., 1980); the Behavior and Symptom Identification Scale – 24 (BASIS-24; Eisen et al., 2004); and the Ferrans and Powers Quality of Life Index (QLI; Ferrans & Powers, 1985).^{3, 4}

Women enrolled in the PRFR program between the time the program began admitting clients until the close of the grant (January 1st, 2009 through September 29th, 2011) completed the GPRA and local evaluation interviews within seven days of their admission to the program. Data from these initial interviews served as a baseline or pre-participation description of the women, including information about their substance use, mental health, family functioning and quality of life, and effects of maternal substance abuse on children.

¹ More specific information about the services and evidence-based practices provided in the PRFR program is detailed in Meta House's final program report to SAMHSA.

² In addition to the quantitative data summarized in the present report, qualitative data collection occurred periodically throughout the project with PRFR staff and clients. Summaries of the focus groups and key informant interviews conducted were provided to the program at the time of data collection and are included as appendices in Meta House's final program report to SAMHSA.

³ The initial BASIS-24 and the QLI interviews were conducted by Meta House counseling staff as part of their intake assessment. The GPRA and ASI questions at intake and all follow-up measures collected were conducted by Meta House's internal evaluation research assistants.

⁴ At intake, two of the measures (the BASIS-24 and the QLI) were collected by the PRFR program's clinical staff for clinical use as well as for evaluation purposes. The remaining intake measures and all follow-up measures were collected by internal evaluation staff.

Women enrolled in the PRFR program were also encouraged to complete follow-up interviews, including the interview six months after the initial assessment. Because of the anticipated variation in women's length of stay in treatment, the six month interviews were taken as the best and most consistent information about women's progress towards recovery. In addition, it was expected that the required 80% follow-up rate for the six month interviews would produce the largest data set and therefore support the most robust analysis.

The GPRA guidelines for Residential Treatment for Pregnant and Postpartum Women grantees provided a three month window of time during which follow-up interviews could be conducted (i.e., one month prior to and two months after the actual interview due date). Thus, the six month interviews with PRFR participants were conducted anytime between five and eight months after the initial assessment interviews. Typically, interviews were conducted towards the beginning of the follow-up window to assure that the required GPRA follow-up rates were met. The average length of time between the baseline and six month follow-up interviews was approximately six months (mean = 181 days; median = 170 days).

Children's Data Collection

In addition to the data collection with women who participated in the program, a variety of information was gathered about the children of the PRFR women. Specifically, around the time of their intake, mothers were invited to participate in interviews about each of their children. These interviews were conducted by the Child and Family Case Manager, using questions from the Child Data Collection Tool (CDCT) that was developed by SAMHSA for the purposes of the cross-site evaluation. At that time, the Child and Family Case Manager also asked women for permission to screen their young children (i.e., children between the ages of two weeks and six years) using the Denver Developmental Screening Test (DDST-II; Frankenburg et al., 1996). Those children who participated in an initial developmental screening were invited to participate in a follow-up screening three months later. However, the absence of incentives and fluctuations in the follow-up protocol over time limited the level of participation in the follow-up developmental screenings.

During the course of their own evaluation interviews, women were asked to provide information about the living arrangements of each of their children. As a result, information was available on the placement status of each child at the time of the initial interview and the six month follow-up interview, allowing for an exploration of changes in placement status over time. Finally, in addition to the information gathered about each child, Meta House staff gathered data on the birth outcomes for pregnant women who delivered while they were in the PRFR program. Specifically, the program recorded the results of each baby's toxicology test at birth and birth weight in relation to gestational age.

Data Analysis and Limitations

The present report first describes the full set of women who participated in the PRFR program. Data from the initial interview and from the program itself are used to describe all enrolled women with respect to demographics, length of stay in residential treatment, length of stay in the full continuum of care, and discharge status. The report also provides a similar description for those women who completed a six month follow-up interview (comparing them to the women who were eligible for a follow-up interview).

The bulk of the report focuses on the women who completed a six month follow-up interview. It provides descriptive information about the array of challenges faced by these women as they entered the PRFR program. In addition, comparisons are made between baseline and six month follow-up data for ASI/GPRA questions that asked about frequency of a behavior in the 30 days prior to the interview and for additional local evaluation measures (i.e., BASIS-24, QLI). Paired t-tests are used to describe the statistical significance of any pre-post differences.

Although statistically significant pre-post changes may provide assurance that change occurred beyond that expected by chance fluctuations, these changes may not capture whether or not women have attained a satisfactory level of functioning. As a result, the report also examines levels of functioning at the six month follow-up interview.⁵ Specifically, the report describes six areas of functioning: developing a commitment to recovery, managing mental health symptoms, moving towards economic self-sufficiency, achieving housing stability, and maintaining a drug-free family environment.

⁵ In each area, there is no assumption that all women are able to attain the highest level of functioning. The levels merely describe the level of functioning at follow-up for women who participated in the program.

The report also provides descriptive information about the children of the women served by the PRFR program (e.g., age, gender, family environment, special concerns, etc.). Available information about the developmental status of young children at the time of their mother's admission to the program is summarized. Although the amount of data is limited, an exploratory analysis of young children's developmental status at follow-up is also provided. Finally, the birth outcomes and subsequent living arrangements for those infants who were born while their mothers were in the PRFR program are described.

The analysis of the results has several limitations. Specifically:

- The analysis includes only those women who completed a six month follow-up interview. The follow-up rate was very high (88.2%) and the women interviewed were reasonably representative of the larger set of women eligible for an interview. However, it remains possible that women who did not complete a follow-up interview entered the program with different challenges or had different treatment outcomes than those women who completed a follow-up interview.
- The follow-up analysis focuses on women interviewed at six months after their admission to the program. Although this was the most meaningful and frequently obtained follow-up point in the data collection, slightly more than half of the women (56.1%) were still engaged in some level of treatment at Meta House at the time of the follow-up interview (residential, day treatment, or outpatient services). As a result, for some women the outcomes achieved at follow-up may be closely related to the continued support of treatment services.
- The analysis is based on self-report data. Although the approach to the program evaluation interviews was carefully designed to support the accuracy and integrity of the data, it is possible that some women may not have been fully candid in their responses.
- The analysis is limited to the information gathered in the interviews. Although the questions included in the interviews cover many aspects of women's lives, inevitably they are not fully representative of women's life experiences either prior to entering treatment or at follow-up.
- The information about the PRFR women's children is generally limited to information provided by their mothers, some of whom may not have detailed knowledge about all of their children due to disruptions in caregiving and/or possible cognitive limitations related to substance use. In addition, only a subset of the children participated in a developmental screening, as the screening was limited to young children and children who were accessible to the program.

META HOUSE'S PRESERVING AND REUNITING FAMILIES IN RECOVERY PROGRAM: PARTICIPANT DESCRIPTIONS

In order to provide an overview of all program participants, the full set of women who were enrolled in the PRFR program are described with respect to their demographics, length of stay, and discharge status. Similar information is provided for the subset of women who completed a six month follow-up interview, as these women are the focus of the report's outcomes for the program. Descriptive comparisons are made on key data points for the women who completed a six month interview and all women who were eligible for a follow-up interview during the grant period.

Description of the Women Participating in PRFR

All of the women who entered the PRFR program between the time the program began admitting clients until the close of the grant (January 1st, 2009 through September 29th, 2011) were enrolled in the GPRA tracking and follow-up interviews. During that time, there were a total of 110 women admitted to the program and enrolled in the interview process. The total number of women admitted over the three year grant period was slightly less than originally anticipated. Specifically, the program served 91.7% of the targeted 120 women, which exceeded the CSAT intake benchmark of 80% but did not fully reach the original estimates of the number to be served. According to the program, several factors contributed to the slightly lower than anticipated number of clients. The vast majority of referrals to the program came from Milwaukee County. During the three years of PRFR program implementation, several changes occurred in Milwaukee County's system for coordinating access and referral to treatment (Wiser Choice: Wisconsin Supports Everyone's Recovery Choice). For example, due to funding constraints the Wiser Choice system was periodically required to decrease the number of intake appointments, resulting in a decreased number of clients entering treatment. In addition, funding constraints also periodically limited the system's ability to authorize a residential level of care, resulting in a limited number of referrals to residential treatment.

Another factor that contributed to the slightly lower than anticipated number of women served was the fewer than expected number of referrals for pregnant women (who typically received priority authorization for a residential level of care). For example, it was anticipated that a collaborative pilot with the Bureau of Milwaukee Child Welfare (the Families Come First project) would increase referrals for pregnant women as the pilot was designed to serve pregnant women using substances and women who have given birth to infants who tested positive for substances. However, most of the women served by the pilot have already given birth to infants who tested positive for substances. In contrast to pregnant women using substances, these women are not always interested in or prioritized for a residential level of care, resulting in a smaller than expected pool of referrals for the PRFR project. Despite these factors, however, the total number served (n=110) was more than 90% of the original target number (n=120).

Data from the initial interview and from the program were used to describe the 110 enrolled women with respect to: 1) demographics, 2) length of stay in treatment, and 3) discharge status.

Demographics

Table 1 and Table 2 present demographic information for the 110 women enrolled in the PRFR program (including all women who completed an initial GPRA interview).

Table 1: Basic Demographics at Admission for All Enrolled Participants

Demographic Characteristics	PRFR Participants (N=110)	
	N	%
Race/Ethnicity		
African American/Black	53	48.2%
Caucasian/White	45	40.9%
Latina/Hispanic	8	7.3%
Native American	3	2.7%
Multiracial	1	0.9%
Age at Admission		
19 years and younger	1	0.9%
20 to 24 years	40	36.4%
25 to 29 years	29	26.4%
30 to 34 years	19	17.3%
35 to 39 years	19	17.3%
40 years and over	2	1.8%
Age statistics (in years)	Mean=28.06 Median=28.00	Range=19-42 SD=5.80
Family Status at Admission		
Mothers and/or pregnant	110	100.0%
Mothers	100	90.9%
Number of children (for those who were mothers)	Mean=3.16 Median=2.00	Range=1-12 SD=2.26
Pregnant*	68	62.4%

*N=109, with 1 woman unsure whether or not she was pregnant at the time of the initial evaluation interview. In addition to the 68 women who reported being pregnant at that time, two women entered the program while pregnant and had already given birth by the time of their initial interview.

Consistent with the planned population of focus, all of the women participating in the PRFR program were either mothers or were pregnant at the time of their admission to residential treatment. Specifically, approximately 90% of the women (n=100 or 90.9%) were already mothers and approximately 60% (n=68 or 62.4%) were pregnant at admission. For those women who were mothers, the mean number of children they had given birth to was 3.1 (with a range of one to 12 children per mother). For those who had children when they began the PRFR program (n=100), almost all (n=99 or 99.0%) had at least one minor child and some (n=11 or 11.0%) also had one or more adult children. In addition, it is important to note that a small number of the women who were mothers (n=8 or 8.0%) had experienced the death of at least one their children.

Approximately two-thirds of the women who participated in the PRFR program (n=70 or 63.6%) were under the age of 30, with a mean age of 28.1 and a median age of 28.0. Almost half of the women (n=53 or 48.2%) described their ethnicity as Black or African American and approximately 40% (n=45 or 40.9%) described themselves as White or Caucasian.

Table 2: Socioeconomic Demographics at Admission for All Enrolled Participants

Socioeconomic Demographic Characteristics	PRFR Participants (N=110)	
	N	%
Highest Level of Education Completed at Admission		
8th grade or less	18	16.4%
9th to 11th grade	35	31.8%
High school diploma / GED	34	30.9%
Some college or vocational / technical school	22	20.0%
College degree	1	0.9%
Employment Status at Admission		
Employed full time or part time	0	0.0%
Unemployed disabled	11	10.0%
Unemployed	99	90.0%
Income at Admission*		
Any income (past 30 days)	92	86.0%
Income from wages (past 30 days)	3	2.7%
Income statistics (past 30 days) (all sources of income combined)	Mean=\$422.38 Median=\$258.00	Range=\$0-\$2500 SD=\$444.77
Legal Status at Admission		
In jail or prison in previous 30 days	24	21.8%
On probation or parole	30	27.3%
Awaiting charges, trial, or sentencing**	18	16.5%

*N=107 for total income, with 3 women missing data. **N=109 for awaiting charges, with 1 woman missing data.

Almost half of the women (n=53 or 48.2%) had not completed high school at the time of their admission to the program, including some women (n=18) whose highest level of education was eighth grade or less. The other half of the women (n=57 or 51.8%) had either graduated from high school or earned their GED certificate, but only one woman had completed a college degree.

At the time of their admission to the program, all of the women were essentially unemployed, with no regular full time or part time employment. However, a small number (n=11 or 10.0%) were considered disabled (i.e., receiving Supplemental Security Income or Social Security disability Insurance). Most of the women (n=92 or 86.0%) did have some source of income during the 30 days prior to admission, primarily from public assistance (e.g., TANF, food stamps, disability). For the women who did have some source of income, the average dollar amount for those 30 days was quite low (mean=\$422.38).

Legal issues may have played a role in some women's entry into treatment as approximately 20% (n=24 or 21.8%) had been in jail in the 30 days prior to admission and approximately 15% (n=18 or 16.5%) were awaiting charges, trial, or sentencing when they began treatment. Overall, almost 30% of the women were on probation or parole at the time of their admission (n=30 or 27.3%).

Length of Stay in Treatment

Women admitted to the PRFR program had a full continuum of care available to them at Meta House, including residential treatment, day treatment, and outpatient treatment. The program's model was based on an optimal residential length of stay of six months or longer and a minimal length of stay of three months. During this time, it was expected that women would focus on their individual treatment needs as well as on establishing their roles as mothers and addressing the needs of their children. However,

changes in the context for authorizing and funding treatment services in Milwaukee County during the life of the grant meant that, at times, neither the optimal nor the minimal length of stay in residential treatment was possible. As a result, Meta House staff focused on promoting the continuum of care and supporting women in transitioning from residential treatment to a lower level of care.

To reflect the full duration of treatment the PRFR women experienced, the analysis examined length of stay in treatment from two perspectives: 1) length of stay in residential treatment and 2) overall length of participation in Meta House treatment services (including residential treatment, as well as day treatment and outpatient services for those women who participated in the continuum of care).⁶

Residential Treatment Length of Stay

Table 3 describes the length of participation in residential treatment for all enrolled participants.

Table 3: Length of Residential Stay for All Enrolled Participants

Length of Residential Program Participation	PRFR Participants (N=109*)	
	N	%
Less than 1 month	18	16.5%
1 month to 1.99 months	17	15.6%
2 months to 2.99 months	25	22.9%
3 months to 3.99 months	15	13.8%
4 months to 4.99 months	12	11.0%
5 months to 5.99 months	8	7.3%
6 months or more	14	12.8%
Length of residential stay statistics (in months)	Mean=3.42 Median=2.92	Range=0.43-11.01 SD=2.44

*One of the 110 enrolled women had not yet been discharged from residential treatment at the end of the data collection period for length of stay (2/29/2012), and therefore was not included in the length of stay analysis.

The length of stay in residential treatment for women who had been discharged at the end of the data collection period ranged from two weeks to approximately 11 months. Slightly more than half of the women remained in residential treatment for less than three months (n=60 or 55.0%) while slightly less than half stayed for three months or more (n=49 or 45.0%). Only 13% of the women (n=14) remained in residential treatment for six months or longer. Although there was appreciable individual variation, on average women remained in residential treatment for approximately three months, and very few remained for six months or longer.

Overall Length of Stay in Treatment

Given that the optimal length of stay in residential treatment (i.e., six months or longer) was not typically possible, Meta House staff relied on a continuum of care model to provide ongoing services to women in the PRFR program. To reflect this reliance on the continuum of care, the overall length of women's full treatment episode was analyzed.

Women were considered to have experienced Meta House's continuum of care if they received additional, non-residential services from Meta House within approximately one month of their discharge from residential treatment. Approximately 70% of the women participating in the PRFR program (n=77 or 70.6%) had experienced Meta House's continuum of care. For these women, the overall length of stay was calculated by adding the length of stay in day treatment or outpatient services to the residential stay.

⁶ Women were considered to have experienced Meta House's continuum of care if they received additional, non-residential services from Meta House within approximately one month of their discharge from residential treatment.

Table 4 describes the overall length of participation in Meta House services for all enrolled women, including the combined length of stay in residential, day treatment, and outpatient services.

Table 4: Overall Length of Stay, including Continuum of Care, for All Enrolled Participants

Overall Length of Program Participation	PRFR Participants (N=92*)	
	N	%
Less than 1 month	11	12.0%
1 month to 1.99 months	3	3.3%
2 months to 2.99 months	18	19.6%
3 months to 3.99 months	13	14.1%
4 months to 4.99 months	12	13.0%
5 months to 5.99 months	4	4.3%
6 months or more	31	33.7%
Overall length of stay statistics (in months)	Mean=5.68 Median=4.02	Range=0.43-24.57 SD=5.02

*Of the 110 enrolled women, 1 had not yet been discharged from residential treatment and 17 had not yet been discharged from outpatient services at the end of the data collection period for length of stay (2/29/2012). These 18 women were not included in the overall length of stay analysis.

The overall length of stay included residential treatment time for all women, as well as the additional day treatment/outpatient time for women who experienced the continuum of care. Approximately two-thirds of the women (n=60 or 65.2%) had an overall length of stay of three months or longer and half of those women (n=31 of the 60) actually stayed engaged for six months or longer. The women who remained in treatment for less than three months (n=32 or 34.8%) generally were women who did not participate in the continuum of care (n=26 of the 32 did not participate in day treatment/outpatient after being discharged from residential treatment). Across the group of enrolled women, the overall mean length of stay was approximately five and one-half months and the median length of stay was approximately four months.

Changes in Length of Stay over Time

It must be noted that the length of stay in treatment declined over the course of the three years of the PRFR grant, paralleling changes in Milwaukee County's system for coordinating and authorizing treatment. This decline was apparent in both the length of stay in residential treatment and in the overall length of stay when data from women admitted during the first two years of the project (October of 2008 through September of 2010) was compared with data from women admitted during the third year of the project (October of 2010 through September of 2011).

Specifically, women admitted during the first two years of the project (n=59) had an average residential length of stay of approximately four months (mean = 4.23 months; median = 3.71 months). In addition, approximately 60% of the women admitted during this time (n=34 of 59, or 57.6%) remained in the residential setting for three months or longer. Further, approximately 20% of the women admitted during the first two years (n=13 of 59, or 22.0%) had a residential stay of six months or longer.

In contrast, women admitted during the last year of the project (n=50) remained in residential treatment for an average of two and one-half months (mean = 2.46 months; median = 2.33 months). Further, only 30% of the women admitted during the last year of the grant (n=15 of 50, or 30.0%) had a residential length of stay of three months or longer, and only one woman remained in residential for six months or longer.

Similarly, the overall length of stay in treatment was somewhat longer during the earlier years of the grant than it was in third year. Specifically, women admitted during the first two years of the project had a mean overall length of stay of approximately seven months (mean = 6.98 months) and a median overall length of stay of approximately five months (median = 4.86 months).⁷ In addition, approximately 70% of the women admitted during this time (n=37 of 53, or 69.8%) remained in treatment for three months or longer, with almost two-thirds of them (23 of the 37) remaining for six months or longer.

In contrast, women admitted during the last year of the project had a mean overall length of stay of approximately four months (3.92 months) and a median overall length of stay of approximately three months (3.15 months).⁸ Although approximately 60% of the women admitted during the last year of the grant (n=23 of 39, or 59.0%) remained in treatment for three months or longer, just over one-third of these women remained for six months or longer (n=8 of the 23).

It appears that the differences in overall length of stay were primarily related to the shorter residential length of stay in the final year of the grant. Specifically, a similar proportion of women at each time point participated in the continuum of care and for similar amounts of time (e.g., 69.5% admitted during the first two years of the grant and 72.0% of women admitted during the third year of the grant participated in the continuum of care).

Program Discharge Status

Graduation was the goal for all women enrolled in the PRFR program. At discharge from the residential program, counselors coded women's treatment progress and the reason for discharge. Women were considered to have graduated if their counselors indicated that they had successfully completed the program or that they had completed with substantial improvement in some areas. However, it must be noted that according to the PRFR program, discharge codes were partially confounded by the coding requirements of Milwaukee County's Wiser Choice program. Specifically, clients who were discharged primarily due to a lapse in funding were required to be coded as "completed". Although clients who completed with poor progress were not considered to have graduated, it is possible that some of those coded as graduates were actually discharged due to funding restrictions.⁹

Approximately three-quarters of the enrolled women (n=83 or 76.1%) were considered to have graduated when they were discharged from the residential program.¹⁰ The average length of stay in residential treatment for women who graduated was approximately four months (mean = 4.01 months; median = 3.42 months). In addition, most of those who graduated from residential treatment (n=66 of the 83) went on to participate in Meta House's day treatment or outpatient treatment programming within 30 days of their discharge.¹¹

Approximately one-quarter of the women (n=26 or 23.9%) did not graduate from the program. Most of the non-graduates withdrew against staff advice (15 of the 26) and a small number completed service without substantial improvement (5 of the 26). The average length of stay in residential treatment for those who did not graduate was relatively short (mean = 1.54 months; median = 0.94 months). While some of the non-graduates did go on to participate in Meta House's continuum of care (n=11 of the 26), slightly more than half of the non-graduates discontinued treatment for at least 30 days after they left the residential program (n=15 of the 26).

⁷ N=53 Year 1 and Year 2 women admitted discharged from the full continuum of care, with 6 women still in treatment at the close of the data collection period for length of stay (2/29/12).

⁸ N=39 women admitted in Year 3 discharged from the full continuum of care, with 11 women still in treatment at the close of the data collection period for length of stay (2/29/12).

⁹ Discharge status for outpatient treatment was only available for women who participated in the continuum of care and for those who had discharged from the continuum of care by the end of the data collection period. In addition, outpatient discharge status was not directly comparable to residential discharge status. As a result, the analysis focused solely on residential discharge status.

¹⁰ N=109. One of the enrolled women had not yet been discharged from residential treatment at the end of the data collection period (2/29/2012) and therefore was not included in the analyses for discharge status.

¹¹ Although these 15 women did not immediately participate in the continuum of care at Meta House, it is possible that they may have sought treatment elsewhere. In addition, the available data suggested that some returned to Meta House at a later point in time (i.e., more than 30 days after their discharge from residential care).

It must be noted that the proportion of women considered to have graduated from the residential program declined somewhat over the course of the three years of the PRFR grant, perhaps related to the decline in the residential length of stay. Specifically, approximately 80% of those admitted during the first two years of the project (n=48 or 59, or 81.4%) graduated from the program. In contrast, 70% of the women admitted during the last year of the grant (n=35 of 50, or 70.0%) were considered to have graduated from residential treatment.

Description of the Women Interviewed at Six Month Follow-Up

There were 110 women admitted to the PRFR program and enrolled in the interview process. There were 93 of these women who became eligible for a six month follow-up interview during the data collection period for interviewing (i.e., their six month follow-up window opened prior to the close of the grant).¹² A total of 82 women completed a six month interview, resulting in a follow-up rate of 88.2% for those who were eligible for a follow-up during the data collection period.

Representativeness

The data were reviewed to determine the extent to which the 82 women who completed a six month interview were representative of the full set of 93 women who were eligible for a follow-up interview. Specifically, those eligible for a follow-up interview and those who actually completed the follow-up were compared with respect to: 1) demographics, 2) length of stay in treatment, and 3) discharge status. Detailed information regarding these comparisons can be found in Appendix A.

In general, the women who completed a six month interview were very similar demographically to the full set of women who were eligible for a follow-up. The two groups closely resembled one another in terms of age, race/ethnicity, education, pregnancy status, the proportion who were mothers, and the number of children. Given the high follow-up rate (88.2%), the comparability of the two groups with respect to these and other demographic characteristics (e.g., income, employment, legal status) was anticipated.

The women interviewed and the women eligible were also similar with respect to length of stay in residential treatment and the proportion of women who graduated from the residential level of care. However, there was a trend towards a slightly longer overall length of stay in the full continuum of care among the women who completed a six month interview. This was most likely related to a tendency for more of the women interviewed to have participated in day treatment or outpatient services after having been discharged from residential treatment (i.e., n=61 or 75.3% of those interviewed and n=65 or 69.9% of those eligible participated in the continuum of care).

Overall, it appears that the high follow-up rate (88.2%) assured that the women interviewed were reasonably representative of the larger group in terms of their demographics, length of stay in treatment, and graduation status.

Description of the Women Interviewed at Follow-Up

All of the women who completed a six month interview were either mothers or pregnant at the time of their admission to the program. Specifically, approximately 95% were already mothers (n=77 or 93.9%) and approximately 60% (n=51 or 63.0%) were pregnant at admission. Approximately 60% of the women interviewed (n=50 or 61.0%) were under the age of 30, with a mean age of 28.4 and a median age of 28.0. Slightly more than half of the women (n=44 or 53.7%) described their ethnicity as Black or African American, with most of the remaining women (n=29 or 35.4%) describing themselves as White or Caucasian. While half of the women (n=41 or 50.0%) had either graduated from high school or earned their GED certificate, the other half (n=41 or 50.0%) had not completed high school (including some who had an eighth grade education or less).

¹² The 93 women eligible for a follow-up included 4 women whose follow-up window had not yet closed as of the end of the data collection period (i.e., 9/29/2011). It is possible that with the benefit of a full follow-up window, these 4 women also would have been interviewed.

The women who completed a six month follow-up had remained in residential treatment for approximately three months (mean = 3.69 months; median = 2.96 months). Overall, approximately three-quarters of the women interviewed at six months (n=62 or 76.5%) were considered to have graduated from residential treatment (i.e., successfully completed or completed with substantial improvement in some areas).

A full continuum of care was available to the PRFR women at Meta House, including day treatment and outpatient services). Three-quarters of the women who completed a follow-up interview (n=61 or 75.3%) participated in this continuum of care within approximately one month of their discharge from residential treatment.

Taking the continuum of care into account, women who completed the follow-up interview had a mean overall length of stay of approximately six months (mean = 6.61 months) and a median length of stay of approximately four months (median = 4.63 months). Approximately 70% of the women who completed a follow-up interview had an overall length of stay of three months or longer (n=48 or 71.6%). Further, approximately 40% (n=28 or 41.8%) remained engaged in some form of treatment at Meta House for six months or longer.

Given the range in treatment length of stay and the participation in the continuum of care, it must be noted that some of the women were still engaged in some form of treatment at Meta House at the time of their six month follow-up interview. Specifically, approximately 20% of the women (n=18 or 22.0%) were in residential treatment when they completed their six month interview. In addition, approximately one-third (n=28 or 34.1%) were engaged in either day treatment or outpatient services at the time of the follow-up interview. Overall, slightly more than half of the women (n=46 or 56.1%) were participating in some form of treatment at Meta House (residential, day treatment, or outpatient services) when interviewed for their six month follow-up.

Detailed information regarding demographic data, length of stay, and discharge information for the women interviewed at six months can be found in Appendix A.

META HOUSE'S PRESERVING AND REUNITING FAMILIES IN RECOVERY PROGRAM: SIX MONTH INTERVIEW FINDINGS

SAMHSA identified five goals for its Residential Treatment for Pregnant and Postpartum Women (PPW) program, and required that each project funded under its services grant connect their efforts with these goals. The PPW program goals for these grantees included:

- Decrease the use and/or abuse of prescription drugs, alcohol, tobacco, illicit, and other harmful drugs among pregnant and postpartum women;
- Increase safe and healthy pregnancies, improve birth outcomes, and reduce related effects of maternal drug abuse on infants and children;
- Improve the mental and physical health of the women and children;
- Improve family functioning, economic stability, and quality of life; and
- Decrease involvement in and exposure to crime, violence, sexual and physical abuse, and child abuse and neglect.

Meta House's Preserving and Reuniting Families in Recovery (PRFR) program goals paralleled and included elements of each of these PPW goals. Specifically, the PRFR program was designed to:

- Improve women's level of functioning related to substance use and sobriety;
- Increase healthy pregnancies and improve birth outcomes;
- Improve women's mental health and physical health functioning;
- Improve family functioning and quality of life; and
- Support women's lack of involvement in criminal activities.

Evaluation data was gathered to address progress towards each of these goals and the specific objectives associated with them. Additional evaluation data was collected to support the PPW cross-site evaluation and to address specific local evaluation questions. As a result, the evaluation findings address:

- Alcohol / drug use and recovery, including reductions in substance use and level of commitment to recovery at follow-up.
- Mental health symptoms and treatment, including reductions in symptoms and level of self-care at follow-up.
- Family functioning, including changes in self-sufficiency, housing, criminal justice involvement, and social supports.
- Quality of life, including changes in overall quality of life as well as in specific life areas (i.e., health and functioning, social and economic, psychological/spiritual, and family domains).
- Effects of maternal substance use, including changes in children's living arrangements, birth outcomes, and the developmental status of young children.

For each of these areas, the summary of findings describes:

- The challenges faced by women and families as they entered treatment;
- The pre-post changes that occurred, comparing the 30 days prior to the initial interview and the 30 days prior to the six month interview; and
- The degree to which women had attained a satisfactory level of functioning at the six month follow-up interview.

Alcohol / Drug Use and Recovery

Women admitted to the PRFR program had been screened by Milwaukee County's Wiser Choice system and met the County's criteria for admission to a residential level of care. As a result, these women were expected to be in the beginning stages of their recovery, with limited ability to remain alcohol and drug free on their own. To address these issues, the PRFR program was designed to assist women in achieving a period of "clean time" and to provide a structure for establishing their recovery. Like other chronic medical conditions, relapse for those who have substance use disorders is an expected part of recovery (Center for Substance Abuse Treatment, 2009; National Institute on Drug Abuse, 2010). The literature suggests that the relapse rates for substance addictions can range from 40% to 60% (e.g., National Institute on Drug Abuse, 2009; Stocker, 1998) and that the factors associated with relapse differ for women (e.g., Walitzer & Dearing, 2006). As a result, the program was also designed to assist women in identifying relapse triggers, and especially those specific to women, to support future abstinence. Overall, the PRFR program's goal was to improve women's level of functioning related to substance use and sobriety.

In the area of substance use, the analysis examined: 1) the women's history of alcohol and drug use as a challenge to recovery, 2) pre-post changes that occurred in women's alcohol and drug use, and 3) women's level of functioning with respect to maintaining a recovery commitment at follow-up.

History of Alcohol / Drug Use as a Treatment Challenge

Questions from the Addiction Severity Index (ASI) and the GPRA were used to develop a picture of women's history of substance use as well as their use in the 30 days prior to the initial interview. Most of the women who participated in the PRFR program and the follow-up interviews had substantial histories of lifetime alcohol and drug use. Specifically, 75.6% of the women (n=62) had one or more of the following substance use characteristics associated with serious addiction:^{13, 14}

- More than five years of regular cocaine use (n=21 or 25.6%);
- Regular use of heroin at some point in their lifetime (n=22 or 26.8%);
- More than ten years of regular use of a substance other than cocaine or heroin (n=25 or 31.3%);¹⁵ and/or
- Regular use of more than one substance per day during their lifetime (n=48 or 59.3%).¹⁶

The women had used a wide variety of substances in their lifetime, the most common of which were alcohol (n=79 or 96.3%), marijuana (n=76 or 92.7%), and cocaine/crack (n=69 or 84.1%). In addition, a full 40% of the women (n=34 or 41.5%) had used heroin at least once in their lifetime. Lifetime use of potentially addictive prescription medications was also relatively common, including use with and without a prescription. The typical medications used included Percocet (n=42 or 51.2%), morphine (n=27 or 32.9%), benzodiazepines such as Valium or Xanax (n=27 or 32.9%), Oxycontin or Oxycodone (n=26 or 31.7%), and prescription-strength Tylenol (n=25 or 30.5%).

In the 30 days prior to the initial interview, approximately three-quarters of the women (n=62 or 75.6%) were actively using alcohol, drugs, and/or potentially addictive prescription medications.¹⁷ The number of days of use during that time ranged from one to 30 days, with a mean of 11.40 days and a median of 10.00 days. Approximately 60% of the women (n=51 or 62.2%) had used illegal drugs, and approximately 40% (n=34 or 41.5%) had used more than one substance on the same day during those 30 days. All of the women who used during the 30 days prior to the initial interview had spent at least some of those days in a controlled environment (e.g., jail, residential treatment, etc.), although only a small number (n=4) had been in a controlled setting for the entire month.

¹³ N=82.

¹⁴ "Regular use" was defined by the ASI as using the substance three or more times per week for at least a month in one's lifetime.

¹⁵ N=80. Two women were missing data on length of lifetime use of other substances, but had one of the other characteristics associated with serious addiction.

¹⁶ N=81. One woman was missing data on length of lifetime use of more than one substance per day, but had one of the other characteristics associated with serious addiction.

¹⁷ N=82 for all 30 day use at the time of the initial interview.

For the women who did use alcohol and/or drugs in the month before the initial interview, the type of substance used varied. Specifically, in the 30 days prior to the initial interview:¹⁸

- Cocaine was used by approximately one-third of the women (n=26 or 31.7%).
- Alcohol was also used by approximately one-third of the women (n=28 or 34.1%), many of whom (n=14 of the 28) drank to intoxication.
- Marijuana was used by approximately 30% of the women (n=24 or 29.3%).
- Heroin was used by approximately 15% of the women (n=13 or 15.9%).

In addition, approximately 40% of the women (n=36 or 43.9%) used potentially addictive prescription medications in the 30 days prior to the initial interview. While some of this use was medically prescribed (with some medications likely prescribed as part of opioid addiction treatment), other women were taking these medications without a prescription. Specifically:¹⁹

- Almost 20% of the women (n=14 or 17.1%) used potentially addictive medications without a prescription. The medications used most frequently without a prescription included Percocet, Oxycontin/Oxycodone, benzodiazepines such as Valium or Xanax, and methadone.
- Approximately one-quarter of the women (n=22 or 26.8%) used potentially addictive medications while having a prescription. The prescribed medications used most frequently included Percocet, methadone, and benzodiazepines such as Valium or Xanax. It must be noted that some of these women indicated that they had used similar medications without a prescription in the past.

Finally, approximately one-quarter of the women (n=20 or 24.4%) did not use any substances in the 30 days prior to the interview.²⁰ All of these women had spent at least part of the month in a controlled environment, with most (n=14 of 20) having spent the entire 30 days in a controlled environment.

Pre-Post Changes in Alcohol and Drug Use

The GPRA interviews asked women how many days they had used various substances in the 30 days prior to each interview. The local evaluation added a question from the Addiction Severity Index (ASI) to identify the number of days during that time that the women were in a controlled environment (e.g., residential treatment, jail, etc.) and therefore presumably unable to use.

Because the initial interviews were not conducted on the first day of residential treatment, all of the women enrolled in the PRFR program had been in a controlled environment for at least one of the 30 days prior to the initial interview. In addition, some of the women had spent time in some other type of controlled environment prior to that first interview (e.g., n=18 or 22.0% had been in jail, n=10 or 12.2% had been in the hospital, etc.).²¹ The number of days spent in a controlled environment in the 30 days prior to the initial interview ranged from 5 to 30, with a mean of 14.52 days and a median of 9.00 days.

At the time of the six month interview, approximately half of the women (n=42 or 51.2%) had been in a controlled environment for at least a portion of the month prior to the interview.²² Most commonly, these women had spent time in residential treatment (n=32 of the 42). For those who were in a controlled environment during the 30 days prior to the follow-up interview, the number of days stayed ranged from 2 to 30, with a mean of 24.26 days and a median of 30.00 days.

To account for these circumstances, the amount of substance use during the months prior to each interview was “adjusted” to reflect women’s usage when they actually had the opportunity to use, i.e. when they were not in a controlled environment. See Appendix B for a more detailed description of how days of use were adjusted to reflect days when women had an opportunity to use.

¹⁸ N=82 for 30 day use of cocaine, alcohol, marijuana, and heroin at the initial interview.

¹⁹ N=82 for 30 day prescription medication use at the initial interview.

²⁰ N=82.

²¹ N=82 for all information on controlled environment at the initial interview.

²² N=82 for all information on controlled environment at the follow-up interview.

Paired t-tests were run to compare women's adjusted days of substance use in the 30 days prior to the initial interview and in the 30 days prior to the six month follow-up interview. The t-tests were conducted for days of use of alcohol, alcohol to intoxication, marijuana, cocaine, heroin, more than one substance per day, illegal drug use overall, and days of complete abstinence from any substance use. Drugs other than these were either used too infrequently in the 30 days prior to treatment to permit a valid pre-post comparison or were confounded by both prescription and nonprescription use. Table 5 lists the results of these tests.

Table 5: Pre-Post Adjusted Means and Paired T-Tests for Alcohol and Drug Use

Substance Used	In the 30 Days Prior to Initial Interview	In the 30 Days Prior to 6 Month Interview	t Value	p Value
Alcohol	4.32	1.30	2.12	.040*
Alcohol to intoxication	2.66	0.79	1.59	.119
Marijuana	2.12	0.54	1.60	.118
Cocaine	5.01	0.79	3.08	.004*
Heroin	2.40	0.00	2.52	.016*
More than 1 substance per day	4.70	0.72	2.76	.009*
Days of illegal drug use	10.97	1.87	4.77	.000*
Days of no use	7.80	14.39	2.81	.008*

N=41 to 42. Eighteen women at the initial interview and 25 women at the follow-up interview were in a controlled environment all 30 days prior to the interview (with 3 of these women in all 30 days prior to both interviews). These women were excluded from the analysis because there was no opportunity to estimate their ability to be abstinent outside of a controlled environment. In addition, 1 woman was missing data on number of days of use for cocaine, marijuana, more than one substance, illegal drug use, and days of no use.

The p value refers to the level of statistical significance of the t value from the paired samples t-test. P-values of less than 0.05 are considered statistically significant and are marked with an asterisk (*).

There were highly statistically significant decreases in most forms of substance use in the month prior to the follow-up interview as compared to the month prior to the initial interview. Specifically, significant pre-post decreases were apparent in the number of days of alcohol use, cocaine use, heroin use, the use of more than one substance on the same day, and the days of illegal drug use. Also, there was a statistically significant pre-post increase in the number of days women were completely alcohol and drug free (including free of potentially addictive prescription medications). It must be noted that there were no significant pre-post differences in the use of alcohol to intoxication or the use of marijuana.²³

The decrease in substance use was also apparent in case-specific patterns of the use of various substances, and particularly in the use of illegal drugs. For example, 86% of those who were using illegal drugs in the 30 days prior to the initial interview were no longer using illegal drugs in the 30 days prior to the follow-up interview (i.e., 43 of the 50 who used illegal drugs at baseline did not report 30 day use at follow-up).

Maintaining Recovery Commitment at Follow-Up

In addition to the pre-post changes in substance use, the analysis examined the extent to which women maintained a recovery commitment at the six month follow-up. Women with substantial histories of substance use have a chronic relapsing condition and a variety of physical, social, and personal stressors can trigger a relapse. Treatment includes preparing women to deal with any relapse by re-engaging with treatment. When a woman experiences a relapse and re-engages in treatment, she is demonstrating commitment to her recovery. Similarly, when a woman is not using and engages in treatment to further support her recovery, she is demonstrating her continued commitment to recovery. On the other hand, when a woman uses illegal

²³ Similar statistically significant pre-post decreases in substance use were found when paired t-tests were run using unadjusted means for the key substance use variables and including all women who participated in a follow-up interview (N=81 to 82). Specifically, significant pre-post decreases were apparent in the number of days of alcohol use, alcohol to intoxication, cocaine use, heroin use, the use of more than one substance on the same day, and the days of illegal drug use.

drugs or alcohol and does not re-engage in treatment, she is either in denial about the fact that she has relapsed or she has given up on her recovery, at least for the present. Women's commitment to their recovery at the six month follow-up can be described using the following levels of functioning:

Level 1 is defined as being completely alcohol and drug free for the 30 days prior to the interview, without participating in substance abuse treatment. Women who have remained alcohol and drug free for the 30 days prior to the interview are demonstrating success in maintaining their recovery.

Level 2 is defined as being completely alcohol and drug free for the 30 days prior to the interview, while continuing or re-engaging in substance abuse treatment. Women who have remained alcohol and drug free for the 30 days prior to the interview and have been engaged in a treatment program are demonstrating a commitment to their recovery, both by their abstinence and their engagement with treatment.

Level 3 is defined as being abstinent from alcohol and illegal drugs, but using potentially addicting medications with a prescription (e.g., narcotics or prescription pain killers such as Vicodin or Oxycontin).²⁴ While these women are no longer using alcohol or illegal drugs, their use of potentially addictive medications may put them at some risk for relapse in the future. However, women at this level have engaged in substance abuse treatment while using prescription medications, which may lessen their risk of relapse.

Level 4 includes women who are abstinent from alcohol and illegal drugs, but using potentially addicting medications with a prescription but without treatment support. These women have neither continued nor re-engaged in substance abuse treatment. It is possible that their use of potentially addictive medications may put them at some risk for relapse in the future, particularly without the added support of a treatment environment.

Level 5 is defined as having some alcohol and/or illegal drug use in the 30 days prior to the interview, and continuing or re-engaging in some form of substance abuse treatment. Women engaged in a treatment program are demonstrating a commitment to their recovery, although they are not completely successful with respect to their actual use.

Level 6 is defined as having some alcohol and/or illegal drug use in the 30 days prior to the interview, and not re-engaging in substance abuse treatment. Given the substantial history of addiction in this group of women, the resumption of alcohol and/or drug use without treatment suggests that the woman is in denial about the fact that she has relapsed or that she has given up on her recovery.

Table 6 describes the level of functioning at follow-up with respect to commitment to recovery.

Table 6: Levels of Recovery Commitment at Follow-Up

Levels	N	%	Cumulative %
Level 1: No alcohol, prescription drug, or illegal drug use – without treatment support.	8	9.9%	9.9%
Level 2: No alcohol, prescription drug, or illegal drug use – while engaged in treatment.	30	37.0%	46.9%
Level 3: Prescribed drug use only (with prescription) – while engaged in treatment.	23	28.4%	75.3%
Level 4: Prescribed drug use only (with prescription) – without treatment support.	2	2.5%	77.8%
Level 5: Some alcohol or illegal drug use – while engaged in treatment.	13	16.0%	93.8%
Level 6: Some alcohol or illegal drug use – without treatment support.	5	6.2%	100.0%

N=81, with one 1 woman missing data on use of several substances at the time of the follow-up interview.

²⁴ Women who used these medications without a prescription were categorized as engaged in illegal drug use.

As Table 6 shows, approximately half of the women who participated in the PRFR program (n=38 or 46.9%) used no alcohol, prescription drugs, or illegal drugs in the 30 days prior to the six month follow-up interview. Approximately 10% of the women (n=8 or 9.9%) were alcohol and drug free without participating in substance abuse treatment during that time. However, most of the women who were abstinent (n=30 of the 38) were doing so with the support of substance abuse treatment. It must be noted that, for many of these women, at least some of the month prior to the interview was spent in residential treatment (n=18 of the 30 who were abstinent with the support of treatment). While their engagement in treatment represented a continued to commitment to recovery, it is difficult to assess their ability to be abstinent outside of a controlled environment.

Table 6 also shows that approximately 30% of the women (n=25 or 30.9%) were abstinent from both alcohol and illegal drugs but were using potentially addictive medications with a prescription. The prescribed medications used most frequently included methadone (n=10), sedatives/tranquilizers such as Ambien (n=6), benzodiazepines such as Valium or Xanax (n=5), and partial opioid agonists such as Suboxone or Subutex (n=5). Almost all of the women who were using prescribed medications were engaged in substance abuse treatment at follow-up. Given this engagement and the level of opioid use at the time of the initial interview, it is likely that these medications were prescribed to alleviate symptoms of withdrawal and prevent potential use of illegal substances. However, over time some women may need to attend to the possible risks that long-term use of these medications may pose.

Finally, approximately 20% of the women (n=18 or 22.2%) had some days of alcohol or illegal drug use in the 30 days prior to the six month follow-up interview. Many of these women (n=12 of 18) were using illegal drugs (most commonly marijuana or cocaine), as opposed to just alcohol. However, many of those who were using (n=13 of 18) were either continuing in treatment or had re-engaged in treatment (primarily outpatient treatment), suggesting a continued commitment to their own recovery. A small number of women (n=5 or 6.2%) had not sought out treatment support during the month of their use, suggesting that they were either in denial about their use or had given up on their recovery, at least for the present.

Mental Health and Treatment

A substantial body of literature suggests that women who enter substance abuse treatment have often experienced significant trauma in their lives (e.g., Farley, et. al., 2004; Najavits, Weiss, & Shaw, 1997; Rohsenow, Corbett, & Devine, 1988; Savage et al., 2007). Specifically, high proportions of women with substance use disorders have experienced sexual or physical abuse, domestic violence, and/or witnessed violence as a child (Center for Substance Abuse Treatment, 2009). As a result, post-traumatic stress disorder and other trauma-related symptoms are common among women in treatment (e.g., Chilcoat & Menard, 2003) and may present a unique treatment challenge (e.g., Eggleston et al., 2009; Hein et al., 2010). In addition to trauma-related symptoms, women with substance use disorders have a relatively high incidence of other co-occurring mental health disorders such as major depression, anxiety disorders, and eating disorders (e.g., Center for Substance Abuse Treatment, 2009; Newman & Sallmann, 2004). As women work towards recovery, therefore, they are often faced with the challenges of processing prior traumatic experiences and managing significant mental health symptoms.

Meta House's PRFR program was designed to assist women in addressing these challenges, with a goal of improving the mental health of program participants. As a result, the program provided mental health assessment, psychiatric services, and counseling in a trauma-informed environment. In addition, the program included Seeking Safety groups, an evidence-based practice designed to simultaneously address substance abuse and symptoms of post-traumatic stress disorder (Najavits, 2002).

In the area of mental health, the analysis of the PRFR data examined: 1) the treatment challenge of women's trauma histories and mental health symptoms, 2) pre-post changes that occurred in women's mental health symptoms, and 3) women's level of functioning with respect to mental health and self-care at follow-up.

Trauma History and Mental Health Symptoms as Treatment Challenges

In addition to their substance use histories, as the PRFR women began treatment they faced challenges related to their past traumatic experiences, their mental health symptoms, and their overall mental health status.

Trauma History

Meta House has embraced a trauma-informed approach, and therefore routinely assesses each woman for a history of trauma throughout the course of her treatment. Counselors from the PRFR program regularly reported information about women's trauma histories at discharge.²⁵ According to the counselors' reports, almost all of the women (n=75 or 92.6%) had experienced some form of emotional, physical, and/or sexual abuse in their lifetime.²⁶ Specifically, the counselor report indicated that:

- Approximately 90% of the women (n=74 or 91.4%) had experienced emotional abuse.
- Approximately 90% of the women (n=72 or 88.9%) had experienced physical abuse.
- Slightly more than half of the women (n=44 or 54.3%) had experienced sexual abuse as a child.
- Slightly more than half of the women (n=43 or 53.1%) had experienced some form of sexual assault as an adult.
- Approximately 40% of the women (n=32 or 39.5%) had experienced both childhood sexual abuse and sexual assault as an adult.²⁷
- Focusing just on physical abuse, childhood sexual abuse, and/or adult sexual assault, almost all of the women (n=75 or 92.6%) were reported as having experienced one or more of these types of abuse.

Overall, it is clear that most of the women entering the PRFR program had experienced significant trauma in their lives and were likely faced with the challenge of addressing these experiences as they worked towards recovery.

Specific Mental Health Symptoms

Questions from the Addiction Severity Index (ASI) were used to determine the frequency and severity of eight specific mental health symptoms in the 30 days prior to each interview. These questions included: 1) four relatively mild symptoms that were considered significant if experienced for five consecutive days or more (serious depression, serious anxiety, cognitive confusion, or serious problems with eating or sleeping) and 2) four relatively severe symptoms that were considered significant if experienced at any time (hallucinations, trouble controlling violent behavior, suicidal ideation, or attempted suicide).

In the 30 days prior to the initial interview, approximately three-quarters of the women (n=62 or 76.5%) experienced either five or more consecutive days of the mild symptoms or at least one incident of the relatively severe symptoms.²⁸ Specifically:

- Almost three-quarters of the women (n=60 or 74.1%) experienced at least five consecutive days of one or more of the relatively mild mental health symptoms.²⁹ None of these symptoms was more or less common than the others, with a similar proportion of the women experiencing serious depression, serious anxiety, cognitive confusion, and serious problems with eating or sleeping.

²⁵ These figures represent the proportion of women for whom counselors were able to make a determination of abuse history. It is possible that some of the women who were reported as not having abuse histories may simply have not disclosed their histories to their counselors.

²⁶ N=81, with 1 woman missing data on all types of abuse history.

²⁷ Almost three-quarters of the women who had experienced sexual abuse as a child (N=32 of 44) also experienced some form of sexual assault as an adult.

²⁸ N=81, with 1 woman missing initial data on experiencing five days or more of the mild mental health symptoms and the more severe mental health symptoms.

²⁹ N=81, with 1 woman missing initial data on experiencing five days or more of the mild mental health symptoms.

- Approximately 20% of the women (n=18 or 22.2%) experienced at least one incidence of one or more of the severe mental health symptoms during the 30 days prior to the initial interview (i.e., hallucinations, trouble controlling violent behavior, suicidal ideation, or suicide attempt).³⁰ Trouble controlling violent behavior and suicidal ideation were the most commonly endorsed severe symptoms, with one woman having attempted suicide in the month prior to the initial interview.

During the 30 days prior to the initial interview, the number of days that women experienced any mental health symptoms was substantial (mean days of symptoms = 19.7 days; median days = 27.5 days).³¹ Specifically:

- Only 15% of the women (n=12 or 15.0%) reported experiencing no days of symptoms in the month prior to the interview.
- More than three-quarters of the women (n=64 or 80.0%) experienced at least seven total days (one week) of symptoms.
- A full half of the women (n=40 or 50.0%) experienced mental health symptoms every day in the month prior to admission. For those who experienced symptoms daily, the most common symptoms reported were serious depression and cognitive confusion.

Approximately 40% of the women (n=32 or 39.5%) had received treatment and/or medication for mental health problems in the 30 days prior to their initial interview.³² Specifically:

- In the month prior to the initial interview, one-third of the women (n=27 or 33.3%) took psychiatric medication.³³
- In the month prior to the initial interview, a small number (n=12 or 14.6%) received inpatient or outpatient treatment for mental or emotional difficulties.³⁴

Overall, prior to the initial interview it appears that a substantial number of the women were experiencing significant and frequent mental health symptoms. In addition, it appears that many of these women were not connected to mental health treatment during that time or, if they were, that the treatment may not have been successful in managing their symptoms.

Overall Symptoms and Problem Difficulty

In addition to the ASI questions about specific mental health symptoms, the evaluation interviews also included the 24-item Behavior and Symptom Identification Scale (BASIS-24) as a measure of symptom and problem difficulty (Eisen et al., 2004). The BASIS-24 asks individuals to rate, on a scale from 0 to 4, their mental health symptoms and functioning over the past week. Responses are scored using a weighted algorithm, producing an overall score as well as six subscale scores: Depression/Functioning, Emotional Liability, Psychosis, Relationships, Self-Harm, and Substance Abuse. Overall scores and subscale scores on the BASIS-24 range from 0 to 4, with higher scores indicative of greater mental health symptoms or problem difficulty.

A total of 72 women completed the BASIS-24 at both the initial and the 6 month follow-up interview.³⁵ Designed as a research measure, a clinical cut-off score is not available for the BASIS-24. However, information available in the literature provides some context for the PRFR women's scores on the BASIS-24 at the time they entered the program. For example:

- At intake, the PRFR women's mean overall score of 1.40 (SD = 0.63) was slightly lower than Eisen et al.'s (2007) original sample of adults entering inpatient substance abuse treatment (mean = 1.89, SD = 0.71) and slightly higher than their original sample of adults entering outpatient substance abuse treatment (mean = 1.13, SD = 0.86).

³⁰ N=81, with 1 woman missing initial data on severe symptoms.

³¹ N=80, with 2 women missing initial data on the number of days of mental health symptoms.

³² N=81, with 1 woman missing data regarding psychiatric medication.

³³ N=81, with 1 woman missing data regarding psychiatric medication.

³⁴ N=82 for inpatient/outpatient mental health treatment.

³⁵ N=72 for all BASIS-24 analyses, with 10 women missing data on the BASIS-24 at either the initial or follow-up interviews.

- At intake, the PRFR women’s mean overall score of 1.40 (SD = 0.63) was virtually identical to Elwy et al.’s (2008) sample of African American adults entering outpatient substance abuse treatment (mean = 1.40, SD = 0.97).

The comparisons with the data found in the literature suggest that the mean overall BASIS-24 score for PRFR women at program entry was generally similar to the scores documented in the literature for male and female adults entering substance abuse treatment.

Pre-Post Change in Mental Health Symptoms

In order to examine the change in women’s mental health over time, the analysis explored: 1) pre-post changes in the specific symptoms identified in the ASI and 2) pre-post changes in the overall symptom picture and problem difficulty measured by the BASIS-24.

Pre-Post Changes in Specific Symptoms

Paired t-tests were run to compare women’s mental health symptoms prior to the initial interview and prior to the six month interview. The t-tests were conducted for: 1) the number of days in the prior 30 days that women experienced any of the mental health symptoms identified by the ASI questions and 2) the total number of different mental health symptoms experienced (including five days or more of the mild symptoms and any of the relatively severe symptoms). Table 7 lists the results of these statistical tests.

Table 7: Pre-Post Means and Paired T-Tests for Mental Health Symptoms

Mental Health Symptoms	In the 30 Days Prior to Initial Interview	In the 30 Days Prior to 6 Month Interview	t Value	p Value
Days of Mental Health Symptoms*	19.95	14.17	3.57	.001*
Number of Different Mental Health Symptoms**	1.89	1.18	3.05	.003*

* N=77 for days of symptoms, with 5 women missing data at either the initial or the follow-up interview.

** N=76 for number of different symptoms, with 6 women missing data at either the initial or the follow-up interview.

The p value refers to the level of statistical significance of the t value from the paired samples t-test. P-values of less than 0.05 are considered statistically significant and are marked with an asterisk (*).

As Table 7 shows, there was a statistically significant pre-post decrease in the number of days that women experienced mental health symptoms. In addition, there was a statistically significant pre-post decrease in the number of different significant mental health symptoms experienced.

The decrease in mental health symptoms was also apparent in the proportion of women who experienced symptoms in the month prior to the initial and follow-up interviews (confirmed by Pearson chi-squared analyses). For example:

- At follow-up, significantly fewer women experienced daily symptoms ($\chi^2 (1, N=77) = 7.60, p=.006$). Specifically, while half of the women (n=39 or 50.6%) reported experiencing mental health symptoms every day during the month prior to the initial interview, only about one-third (n=28 or 36.4%) reported daily symptoms in the month prior to the follow-up interview.
- At follow-up, significantly fewer women experienced five or more consecutive days of the mild symptoms ($\chi^2 (1, N=80) = 5.41, p=.020$). While three-quarters of the women (n=60 or 75.0%) reported experiencing significant mild symptoms such as depression and anxiety during the month prior to the initial interview, less than half (n=38 or 47.5%) reported these symptoms in the month prior to the follow-up interview.³⁶

³⁶ While there was some pre-post improvement in the proportion of women who experienced at least one incident of the relatively severe symptoms, the difference was not statistically significant. Nonetheless, 15 of the 18 women who had severe symptoms in the 30 days prior to the initial interview no longer reported severe symptoms in the 30 days prior to the follow-up interview.

The data also indicated that more women were connected with mental health treatment at the time of the follow-up interview than had been connected at the initial interview. Specifically:

- At follow-up significantly more women had received treatment and/or medication for mental health problems ($\chi^2(1, N=80) = 6.68, p=.010$). While 40% of the women ($n=32$ or 40.0%) were engaged in some form of mental health treatment during the month prior to the initial interview, almost 60% ($n=46$ or 57.5%) had received treatment and/or medication in the month prior to the follow-up interview.

Pre-Post Changes in Overall Symptoms and Problem Difficulty

Paired t-tests were conducted to compare women’s symptom and problem difficulty as measured by the BASIS-24 prior to the initial interview and prior to the 6 month interview. The t-tests were conducted for: 1) the BASIS-24 overall score and 2) each of the six BASIS-24 subscale scores (Depression/Functioning, Emotional Lability, Psychosis, Relationships, Self-Harm, and Substance Abuse). Table 8 lists the results of these statistical tests.

Table 8: Pre-Post Means and Paired T-Tests for BASIS-24 Overall and Subscale Scores

BASIS-24 Scores	In the Week Prior to Initial Interview	In the Week Prior to 6 Month Interview	t Value	p Value
Overall Score	1.40	1.11	2.99	.004*
Depression/Functioning	1.72	1.30	3.17	.002*
Emotional Lability	1.79	1.69	0.68	.501
Psychosis	0.61	0.56	0.35	.729
Relationships	1.28	0.95	2.76	.007*
Self-Harm	0.14	0.13	0.14	.889
Substance Abuse	1.52	0.91	4.20	.000*

N=72, with 10 women missing data at either the initial or the follow-up interview.

Overall and subscale scores on the BASIS-24 range from 0 to 4. Higher scores are indicative of greater mental health symptoms or problem difficulty; lower scores are indicative of less symptoms or problem difficulty.

The p value refers to the level of statistical significance of the t value from the paired samples t-test. P-values of less than 0.05 are considered statistically significant and are marked with an asterisk (*).

As Table 8 shows, the mean overall score and all six subscale scores generally decreased from the time of the initial interview to the time of the follow-up interview. The pre-post decrease reached the level of statistical significance for the overall score ($p=.004$), suggesting an improvement in women’s overall symptoms and problem difficulty. In addition, statistically significant pre-post decreases were found for three of the BASIS-24 subscales: 1) Depression/Functioning (which includes items related to daily functioning and experiencing of depression symptoms), 2) Relationships (a scale which includes items related to feelings of getting along with others and having support in a crisis), and 3) Substance Abuse (which includes items related to having urges to use alcohol or drugs, hiding substance use, or experiencing problems as a result of substance use).

While the pre-post improvement in the three remaining subscales did not reach the level of statistical significance, it must be noted that the mean scores for two of these subscales were relatively low at both time points. Specifically, the PRFR women’s mean scores on the Psychosis and Self-Harm subscales were on the lower end of the possible score range at both the initial interview and at the 6 month interview. As a result, statistically significant changes over time were unlikely. This “floor effect” was not a factor in the Emotional Lability subscale scores, where no significant pre-post decrease was found.

Level of Mental Health Functioning at Follow-Up

In addition to the pre-post changes in mental health symptoms, the analysis examined women’s level of mental health functioning and self-care at follow-up. Women in recovery may still experience mental health symptoms related to their life situation, prior traumatic experiences, prior drug use, and/or underlying mental

health problems. For women who continue to use drugs, some mental health symptoms may be associated with this continued use. Women’s ability to become or remain alcohol and drug free, to participate in treatment, and to function in the community may be greatly enhanced by participation in mental health treatment that addresses any symptoms they may be experiencing. Women’s experiences of mental health symptoms and engagement in mental health treatment at follow-up can be described using the following levels of functioning:

Level 1 functioning is defined as having no significant mental health symptoms in the 30 days prior to the interview, with or without treatment. There is no suggestion that all women could function at this level. For example, some women with severe and persistent mental health problems may achieve only limited symptom management through treatment.

Level 2 functioning is defined as having a significant period of relatively mild symptoms in the 30 days prior to the interview, and having engaged in recent outpatient treatment and/or taken medication for these symptoms. Included in this level of functioning are women who experienced at least five consecutive days of depression, anxiety, disturbances in sleeping and eating, and/or trouble understanding or concentrating. These symptoms could be the result of previous mental health problems, the stress of functioning without substance use, the stress of resuming parenting responsibilities, and/or other past and present life events. Participating in mental health treatment (outpatient therapy and/or psychiatric medication in the last 30 days) is an appropriate way to manage the problems and is an indicator of good self-care.

Level 3 functioning is defined as having a significant period of the relatively mild symptoms described in Level 2, without receiving recent mental health treatment for these symptoms. It is possible that the women at this level may have other self-care strategies, but none are documented by the ASI.

Level 4 functioning is defined as having any of the relatively severe mental health symptoms in the 30 days prior to the interview, and having received recent treatment for these symptoms. Level 4 functioning also includes women who experienced a period of relatively mild symptoms severe enough that inpatient psychiatric hospitalization was required. Included in this level of functioning are women who reported any incidents of hallucinations, trouble controlling violent behavior, suicidal ideation, or suicide attempts. These symptoms are much more serious than the more mild symptoms in Levels 2 and 3. Participating in mental health treatment (inpatient treatment, outpatient therapy, and/or psychiatric medication) is an appropriate step towards managing these symptoms and indicates appropriate self-care.

Level 5 functioning is defined as having the relatively severe mental health symptoms described in Level 4, without having recent treatment for these symptoms. Given the severity of these symptoms, failure to engage in treatment is likely to contribute to poor symptom management and indicates a lack of appropriate self-care.

Table 9 describes women’s level of functioning at follow-up with respect to mental health and self-care.

Table 9: Levels of Mental Health Functioning at Follow-Up

Levels	N	%	Cumulative %
Level 1: No significant mental health symptoms.	41	50.6%	50.6%
Level 2: Significant, but not severe mental health symptoms with recent outpatient mental health treatment and/or medication.	19	23.5%	74.1%
Level 3: Significant, but not severe mental health symptoms with no recent mental health treatment.	9	11.1%	85.2%
Level 4: Significant and severe mental health symptoms with recent outpatient treatment and/or medication or other symptoms that required inpatient psychiatric hospitalization.	9	11.1%	96.3%
Level 5: Significant and severe mental health symptoms with no recent mental health treatment.	3	3.7%	100.0%

N=81, with 1 woman missing data on mental health symptoms at the time of the follow-up interviews.

As Table 9 shows, approximately half of the women (n=41 or 50.6%) experienced no significant or severe mental health symptoms in the 30 days prior to the follow-up interview. (It should be noted that 19 of these 41 women were successfully managing their mental health with the assistance of psychiatric medication and/or outpatient mental health treatment.)

The other half of the women (n=40 or 49.4%) did experience significant mild symptoms or at least one day of severe symptoms during the 30 days prior to the follow-up interview. These symptoms generally included (in order of frequency) serious problems with sleeping or eating, significant anxiety, serious depression, and trouble understanding, concentrating, or remembering. However, a small number of women (n=12) were experiencing more severe symptoms such as suicidal ideation. Many of the women who were experiencing symptoms at follow-up (n=28 of the 40) were receiving outpatient mental health treatment and/or psychiatric medication in the 30 days prior to the interview, indicating appropriate self-care.

Family Functioning

An array of issues influence a family's level of functioning, many of which are intertwined with substance use. For example, women in substance abuse treatment often face challenges related to self-sufficiency, housing, criminal justice, and limited social support (Center for Substance Abuse Treatment, 2009). These issues can be both antecedents to and consequences of a using lifestyle, and are often difficult to address as women move into recovery. In addition, these issues have an impact on women's children and can sometimes serve as barriers to family reunification (e.g., adequate housing may be a pre-condition to children in out-of-home care being returned to their mother's care).

Meta House's PRFR program was designed to assist women in addressing these challenges, with a goal of improving family functioning among program participants. As a result, the program provided women with: assistance in accessing benefits and/or employment and educational resources; support in finding stable housing arrangements after residential treatment; guidance in resolving legal issues; opportunities for and counseling around developing social support; and assistance in regaining placement of children in out-of-home care if possible.

The analysis of the PRFR data examined these various aspects of family functioning. For each area, a description was developed of the treatment challenges experienced by women and their families. In addition, the analysis examined pre-post changes and/or developed a snapshot of women's status at the six month follow-up.

Economic Self-Sufficiency

Because the PRFR program's population of focus was pregnant and postpartum women, vocational education and employment-oriented services were not a primary initial focus of treatment. However, recognizing the self-sufficiency challenges women were likely to be experiencing, the program did work towards connecting women with community services and appropriate sources of income (e.g., TANF, Food Stamps, WIC, Social Security Disability, etc.) and towards assisting women with educational goals.

In the area of economic self-sufficiency, the analysis focused on describing the challenges faced by women as they move into recovery. In addition, pre-post changes in women's total income were examined, as well as women's level of economic self-sufficiency at follow-up.

Self-Sufficiency Challenges

Women's educational status and previous work history may influence their ability to attain economic self-sufficiency. Half of the women entering the PRFR program (n=41 or 50.0%) had either graduated from high school or had earned their GED certificate.³⁷ However, at entry into treatment very few women had other accomplishments that might help them on the road to future employment. Specifically, only a small number of women had:

³⁷ N=82.

- Held a full-time job at some time in their lives for five years or more (n=8 or 9.9%);³⁸
- Been employed in a usual occupation that was a skilled manual job or better (n=6 or 7.3%);³⁹ or
- Completed a training or technical education course of at least one year in duration (n=4 or 4.9%).⁴⁰

In addition to their limited employment histories, the PRFR women did not have a positive employment picture at the time of their admission to the program. Specifically, only one of the women (n=1 or 1.2%) had received any money from employment in the 30 days prior to the initial interview.⁴¹ Further, none of the women were actively employed around the time of the initial interview. (This may have been related to the fact that all were pregnant or postpartum and were preparing to enter residential treatment.)

Despite their lack of employment, most of the women (n=70 or 86.4%) did have some source of income in the month prior to admission (including money from public assistance, friends and family, etc.).⁴² However, their total income was extremely limited. Specifically:

- In the 30 days prior to the initial interview, women's mean total monthly income from all sources was approximately \$400, which could provide a total annual income of only about \$4,800.
- Approximately half of the women (n=40 or 49.4%) received less than \$250 from all sources during the month prior to the initial interview, while virtually all of the women (n=76 or 93.8%) received less than \$1,000 during that month.

In the month prior to their admission, some type of public assistance was the most common source of income for the PRFR women. Specifically:

- Approximately two-thirds of the women (n=54 or 65.9%) received at least part of their income from TANF and/or food stamps.⁴³
- A small number of women (n=7 or 8.5%) received some money from Social Security Disability (SSDI) or Supplemental Security Income (SSI) due to their own disabilities, and two women (n=2 or 2.4%) received Social Security payments for their physically or developmentally disabled children.⁴⁴

Women had few sources of other income in the month prior to their admission. While some women received money from family or friends (n=30 or 36.6%), it is notable that very few (n=3 or 3.7%) received any formal child support payments in the month prior to admission.⁴⁵ Overall, it is clear that economic self-sufficiency was a significant challenge faced by virtually all of the PRFR women at the time of their entry into treatment.

Pre-Post Changes in Income

The analysis explored the extent to which women's income status changed between the time of their admission to the program and their six month interview. A paired t-test was run to compare women's total income in the 30 days prior to the initial interview and prior to the follow-up interview. The results indicated that there was a statistically significant pre-post increase in women's total income ($t(78) = 4.52, p < .001$).⁴⁶ Specifically, women had an average income of approximately \$400 (mean = \$388.34, SD = 449.72) in the 30 days prior to the initial interview. By the time of the six month interview, women's average income for the 30 days prior to the interview had increased to approximately \$700 (mean = \$690.53, SD = 445.22).

³⁸ N=81, with 1 woman missing length of full time employment.

³⁹ N=82.

⁴⁰ N=82.

⁴¹ N=82.

⁴² N=81 for all total income items, with 1 woman missing data on total income at the initial interview.

⁴³ N=82.

⁴⁴ N=82.

⁴⁵ N=82.

⁴⁶ N=79, with 3 women missing data on total income at either the initial or the follow-up interview.

Despite this statistically significant increase, the total monthly income women received from all sources at follow-up remained very limited and was largely dependent on public support. Specifically:

- Women's mean total monthly income of \$690.53 in the 30 days prior to the follow-up interview could provide an annual income of only about \$8,300.⁴⁷
- Approximately half of the women (n=40 or 50.6%) received less than \$750 during the month prior to the follow-up interview, while approximately three-quarters of the women (n=59 or 74.7%) received less than \$1,000 during that month.⁴⁸
- The most common source of income for women at follow-up was some type of public support. Specifically, approximately 85% of the women (n=68 or 84.0%) received at least part of their income from TANF and/or food stamps in the month prior to the follow-up interview.⁴⁹
- Approximately one-quarter of the women (n=20 or 24.4%) did receive money from family or friends at follow-up.⁵⁰ However, very few women (n=3 or 3.7%) received formal child support (although n=49 had minor children in their care). Further, none of the women earned money from employment during the month prior to the follow-up interview.

Level of Economic Self-Sufficiency at Follow-Up

The analysis also examined the current and potential level of economic self-sufficiency at follow-up. Women's future earnings and self-sufficiency are related both to their current employment status and to other activities that may contribute to improved employment. For example, working part time or being a student may lay the foundation for later advancements with respect to employment or wages. In contrast, women who are receiving Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI) have disabilities that may impact their potential for economic self-sufficiency. The following levels of self-sufficiency describe where women were at follow-up with respect to their potential for economic self-sufficiency.

Level 1, the most desirable level of functioning with respect to economic self-sufficiency, is defined as regular full time employment. The assumption is that women will be best able to support themselves and their families through full time employment.

Level 2 is defined as being employed part time with regular hours. Women who are functioning at this level have the opportunity to develop job skills and a resume that may lead to a full time position. In addition, they are presently providing some regular income for their families.

Level 3 is defined as being a full time student (without also being employed). Education leads to skills and credentials that may translate into a full time job in the future. However, women who are full time students are typically providing no income for their families.

Level 4 is defined as receiving SSI/SSDI with no employment or enrollment as a student. While the SSI/SSDI benefit is generally a reliable source of income, the amount is usually not sufficient to provide economic self-sufficiency for a woman and her family.

Level 5 is defined as having no regular employment and no SSI/SSDI. The woman and her family have no apparent stable source of income and there is no current activity that is likely to lead to economic self-sufficiency.

Table 10 describes the level of functioning at follow-up with respect to women's current and potential economic self-sufficiency.

⁴⁷ N=79, with 3 women missing data on total income.

⁴⁸ N=79, with 3 women missing data on total income.

⁴⁹ N=81, with 1 woman missing data on income from TANF or food stamps.

⁵⁰ N=82.

Table 10: Levels of Economic Self-Sufficiency at Follow-Up

Levels	N	%	Cumulative %
Level 1: Full time employed.	0	0.0%	0.0%
Level 2: Part time employed (regular hours).	1	1.2%	1.2%
Level 3: Full time student.	2	2.4%	3.7%
Level 4: SSI/SSDI and no employment.	9	11.0%	14.6%
Level 5: No regular employment and no SSI/SSDI.	70	85.4%	100.0%

N= 82.

As Table 10 shows, the vast majority of the women (n=70 or 85.4%) had no regular full time or part time employment at follow-up. When asked, the women in this category reported that they were prioritizing focusing on their treatment and caring for their children, rather than working. The data confirms that many women had additional responsibilities that may have served as a focus during the month before the follow-up interview. Specifically, most of the 70 women who were not employed were in a controlled environment such as residential treatment (n=36) and/or were parenting minor children (n=46). Only a small number of the women who were unemployed (n=6) were not engaged in treatment or parenting. It should be noted that some of the unemployed women (n=21 of 70) were either part time students or were participating in Meta House’s literacy programming in an effort to earn their GED.

Approximately 10% of the women (n=9 or 11.0%) were receiving either SSI or SSDI disability at the time of the follow-up interview. In addition, several of the women who had no regular employment at follow-up (n=4 of 70) indicated that they were in the process of applying for disability.

Housing Instability

As the PRFR program was a residential program, women and children had their immediate housing needs met during their length of stay in the program. However, as in many communities, safe and affordable housing is limited in Milwaukee. As a result, it was expected that women would have experienced housing instability prior to admission to the program and were likely to face housing challenges at follow-up. The PRFR program provided case management assistance for housing as part of discharge planning, and also facilitated women’s admission to Meta House’s transitional living apartments if possible. In the area of housing, the analysis focused on describing women’s history of housing instability and on examining the extent to which they had secured stable housing at follow-up.

Housing Challenges

The analysis examined women’s experience of housing instability over the course of their lifetime, using a “homelessness index” developed by the project. The index recognizes that there are different degrees of unstable housing. For example, women who are homeless or at risk for homelessness may be able to stay rent-free with friends or family, or be able to temporarily rent a motel room. On the other hand, some women may not have the social or financial resources to provide even temporary housing, necessitating that they turn to a homeless shelter or resort to sleeping in a public place or a drug house.

Most of the women (n=74 or 90.2%) had experienced at least one form of unstable housing at some point in their lives.⁵¹ Specifically, over the course of their lifetime:

- Most of the women (n=71 or 86.6%) had stayed rent-free with family or friends or had lived in a rented hotel or motel room.
- Approximately 60% of the women (n=50 or 61.0%) had actually been homeless.⁵² For example, approximately one-third of the women had stayed overnight in a shelter (n=28 or 34.1%) or had

⁵¹ N=82 for all data on lifetime indicators of housing instability.

⁵² For the purposes of this data, “actual” homelessness included women who had slept at a shelter for the homeless, in a car, in an empty building, in the streets or a park, in a public place, and/or in a drug house.

slept overnight in their car (n=26 or 31.7%). In addition, approximately one-quarter (n=20 or 24.4%) had spent the night on the streets or in a park.

- Approximately 60% (n=50 or 61.0%) had stayed in residential treatment, transitional living, or an institution (e.g., jail) with no other place to live.

In addition to having a history of unstable housing, most of the women (n=66 or 80.5%) were experiencing some form of housing instability immediately prior to entering treatment.⁵³ Specifically, for most of the month prior to the initial interview:

- Approximately 40% of the women (n=33 or 40.2%) were living in someone else's apartment or home (with or without contributing to the rent).
- Approximately 20% (n=17 or 20.7%) were living in an institution (e.g., in jail, hospitalized, etc.) or in a shelter.
- Approximately 10% (n=9 or 11.0%) were actually homeless or had no stable living arrangement.

It must be noted that approximately 20% of the women (n=16 or 19.5%) were living in their own apartment or home for most of the month prior to entering residential treatment. Nonetheless, overall it appears that housing instability was a challenge for the majority of the PRFR women.

Securing Stable Housing at Follow-Up

Recognizing the PRFR women's histories of housing instability, the analysis also examined the extent to which women secured stable housing at follow-up. Women's progress towards independent, stable housing can be described in terms of their living situation during most of the month prior to follow-up, as well as whether they had to resort to any of the types of sleeping arrangements that indicate homelessness or risk of homelessness during that time. Women's housing stability can be described using the following levels of functioning:

Level 1 is defined as having lived most of the last 30 days in one's own apartment, room, or house, without having to resort to any of the types of sleeping arrangements that are indicative of an unstable living arrangement. Women at this level may be living alone or with children, significant others, and/or family members. This is the most desirable level of functioning.

Level 2 is defined as having lived most of the last 30 days in someone else's apartment, room, or house. This means that the woman was contributing some portion of the rent and was not just taken in for temporary overnight shelter. Also during this time, the woman did not have to resort to any of the types of sleeping arrangements that are indicative of an unstable living arrangement. At this level of functioning, the woman has a stable living arrangement for most of the last 30 days.

Level 3 is defined as having lived most of the last 30 days in a transitional living setting without having to resort to any of the types of sleeping arrangements that are indicative of an unstable living arrangement. Typically, transitional housing in Milwaukee is not short-term, so there is some expectation of continued housing stability.

Level 4 is defined as having lived most of the last 30 days in residential treatment or in an institution (e.g., jail), without having to resort to any of the other types of sleeping arrangements that are indicative of further instability in living arrangements. Residential treatment in Milwaukee typically involves stays of several months at most, so there is no expectation of continued stability in the same setting.

Level 5 is defined as having lived most of the last 30 days in a shelter, on the street, or in an unstable living arrangement (e.g., in someone else's house without paying rent).

Table 11 describes the level of functioning at follow-up with respect to the stability of women's housing situation.

⁵³ N=82 for all data on housing situation prior to the initial interview.

Table 11: Levels of Housing Stability at Follow-Up

Levels	N	%	Cumulative %
Level 1: Own apartment, room, or house.	24	30.0%	30.0%
Level 2: Someone else's apartment, room, or house while contributing to rent.	6	7.5%	37.5%
Level 3: Transitional living.	7	8.8%	46.3%
Level 4: Residential treatment facility or institution.	32	40.0%	86.3%
Level 5: Shelter, street, or indication of unstable living arrangement.	11	13.8%	100.0%

N=80, with 2 women missing data on housing stability at follow-up.

As Table 11 shows, approximately 40% of the women (n=30 or 37.5%) had spent most of the 30 days prior to the follow-up interview living in either their own apartment, room, or house or in someone else's residence while contributing to some portion of the rent. During this time, these women had not needed to resort to any of the types of sleeping arrangements that are indicative of unstable living arrangements.

However, another 40% of the women (n=32 or 40.0%) were living in either residential treatment or an institution (with virtually all of them in residential treatment). In addition, approximately 10% were living in transitional housing (n=7). While all of these women were safely housed at the six month follow-up, all will eventually have to secure more permanent living arrangements.

There were a small number of women (n=11 or 13.8%) who had an unstable living arrangement most of the month prior to the follow-up interview. About half of these women (n=6 of the 11) were staying in someone else's home (or several people's homes) without paying rent and with no place else to stay. However, some of the women (n=5 of the 11) could be considered homeless at follow-up, including those who had no stable living arrangement, lived in a homeless shelter, or stayed overnight on the streets.

Criminal Justice Involvement

While the PRFR program was not specifically designed to serve a population of women with criminal justice involvement, anecdotal information during the course of the project suggested that some of the women served had experienced significant legal problems prior to entering treatment (e.g., time in jail). In addition, many of the women were using illegal substances prior to admission, putting them at risk for criminal justice involvement. As a result, in addition to treatment directed towards abstinence from the use of illegal drugs, the PRFR program provided support and case management to women as they worked to resolve their legal issues.

The analysis focused on describing women's legal challenges at the time of their admission to the program and also explored the extent to which women refrained from involvement in criminal activities at follow-up. Areas explored included the pre-post changes in the number of women who committed a crime or spent a time in jail, as well as a case-specific description of those women who did have criminal justice involvement at follow-up.

Criminal Justice Challenges

At the time of the initial interview, most of the women (n=69 or 84.1%) reported current involvement with the criminal justice system or having engaged in illegal activities in the past month (including the use of illegal drugs).⁵⁴ Specifically, in the 30 days prior to the initial interview:

- Approximately 60% of the women (n=51 or 62.2%), although not necessarily involved in the criminal justice system, reported that they had committed some type of crime during that month, including the use of illegal drugs.
- Approximately one-quarter of the women (n=20 or 24.4%) were on probation or parole.

⁵⁴ N=82 for all data on criminal justice involvement prior to the initial interview.

- Approximately 20% (n=18 or 22.0%) had spent at least one night in jail, with many of those women (n=12 of 18) having been incarcerated for more than half of the month prior to the interview.
- Approximately 15% (n=13 or 16.0%) had an issue pending in the criminal justice system and were awaiting charges, trial, or sentencing.
- Few of the women had been arrested during that month (n=5 or 6.1%) and few reported having engaged in illegal activities for profit (n=4 or 4.9%).

Overall, it is clear that many of the PRFR women came into treatment with significant criminal justice challenges to resolve. While some of those challenges were specifically related to the active use of illegal drugs, other legal issues were more indirectly related to substance use and not fully resolvable simply through abstaining from illegal drug use.

Pre-Post Changes in Criminal Justice Involvement

While the number of women who committed a crime at follow-up was too small to permit a statistical pre-post comparison, it is clear that women were less involved in criminal activities at the time of the follow-up interview than they were at the time of intake. Specifically, while approximately 60% of the women (n=50 or 61.7%) had committed a crime during the month prior to the initial interview (including using illegal drugs), only about 15% (n=13 or 16.0%) reported criminal activity in the month prior to the follow-up interview.⁵⁵ Primarily, this improvement was related to the lower level of illegal drug use at the time of follow-up.

The number of women who spent time in jail at follow-up was also too small to permit a statistical pre-post comparison. However, it was also clear that women were less likely to have served time in jail at follow-up than they were at the time of the initial interview. Specifically, while approximately one-quarter of the women (n=18 or 22.0%) had spent a night in jail prior to the initial interview, only a small number (n=5 or 6.1%) had been in jail in the month prior to the follow-up interview.⁵⁶ A paired t-test comparing the total nights in jail at each time point confirmed this change ($t(81) = 2.63, p = .010$).⁵⁷ Specifically, women spent an average of approximately 4 nights in jail (mean = 3.89, SD = 8.41) in the 30 days prior to the initial interview as compared to an average of approximately 1 night (mean = 1.07, SD = 4.89) in the month before the follow-up interview.

At the time of the initial interview, approximately one-quarter of the women (n=20 or 24.4%) were on probation or parole.⁵⁸ At follow-up, a similar proportion (n=21 or 25.9%) were under probation or parole supervision.⁵⁹ Most of these women (n=19 of 21), however, reported no additional involvement in criminal activities or contact with the legal system during the 30 days prior to follow-up. As a result, they may be on the road towards resolving the criminal justice issues that were directly or indirectly related to their substance use.

Case-Specific Criminal Justice Involvement

At the time of the six month follow-up, there were a small number of women who had what appeared to be new involvement with the criminal justice system. For example, three of the women (3.7%) reported that they had been arrested in the 30 days prior to the follow-up interview.⁶⁰ One of these three women indicated that her arrest was due to a drug-related offense and the other two reported that they had engaged in drug-related illegal activities in the month prior to the interview. All three women spent time in jail during that month and were awaiting charges, trial, or sentencing at the time of the follow-up interview. Finally, looking back at these women's legal status at the time of the initial interview, two of the three had been on probation and one had also spent time in jail in the 30 days prior to admission.

⁵⁵ N=81, with 1 woman missing data on criminal activities at follow-up. Note that this missing data accounts for a slight difference in the reported number of women who committed a crime at initial as compared to that reported in the pre-post analysis.

⁵⁶ N=82.

⁵⁷ N=82.

⁵⁸ N=82.

⁵⁹ N=81, with 1 woman missing data on probation/parole status at the follow-up interview.

⁶⁰ N=82.

Social Support

The literature suggests that social support is an integral part of establishing recovery for women in substance abuse treatment (Center for Substance Abuse Treatment, 2009). Therefore, the PRFR program is based in a relational model, emphasizing the connections between women and key people in their lives. As a result, the program encouraged peer support among the women in the program and also provided family education and family therapy services to assist women in reconnecting with their families. The analysis examined the extent to which women experienced themselves as having people in their lives who were supportive of their recovery, both at the time of the initial interview and at the six month follow-up.

Despite their substantial histories of substance use and the numerous other challenges they faced at the time of the initial interview, the PRFR women reported that they had people in their lives upon whom they could depend. Specifically, almost all of the women (n=75 or 92.6%) indicated that they had had interaction with family or friends who were supportive of their recovery in the 30 days prior to the initial interview.⁶¹ In addition, when asked who they turned to for support, virtually all of the women (n=79 or 96.3%) were able to name at least one person to whom they could turn. The most common sources of support for these women were family members (n=41 of 79) or a significant other (n=24 of 79). Although the level of reported social support at intake is encouraging, it is unknown the extent to which these were appropriate sources of support (e.g., non-using and non-exploitive individuals).

At the time of the six month follow-up interview, women reported a level of social support similar to what they described at their initial interview. Specifically, at follow-up almost all of the women (n=78 or 95.1%) indicated that they had had interaction with family or friends who were supportive of their recovery in the 30 days prior to the interview.⁶² In addition, when asked who they turned to for support, virtually all of the women (n=79 or 96.3%) were able to name at least one person to whom they could turn. The most common sources of support for these women were family members (n=46 of 79) and significant others (n=14), although several (n=5) also identified their counselors as a frequent support.

A small number of women (n=3) indicated that they had “no one” to whom they could turn if they were having trouble. Each of these women did identify a support person at the time of their initial interview, but it is possible that their subsequent challenges disrupted those supports. For example, two of the three women reported substance use during the month prior to the follow-up interview, and one had experienced a hospitalization for mental health issues. Overall, however, it appears that most of the PRFR women experienced themselves as having supportive people in their lives, both as they entered treatment and six months later.

Resumption of Parenting Role

The PRFR program emphasized the importance of women’s relationships with their families, and particularly with their children. The program provided clinical support for women in their roles as mothers, as well as parenting groups, family sessions, and direct services to children. The program’s goal was to support women in their parenting roles and, if possible, to assist women in being reunited with children living elsewhere. As a result, the analysis explored the extent to which the women had one or more children returned to their care by the time of the six month follow-up interview.⁶³

At the time of the initial interview, approximately three-quarters of the women (n=60 or 73.2%) had one or more minor children who were not living with them. Slightly more than half of these women (n=33 of 60, or 55.0%) had one or more children who were living informally with family or friends. In addition, approximately two-thirds of these women (n=39 of 60, or 65.0%) had one or more children who were formally placed with another caregiver due to a child protection court order.

⁶¹ N=81, with 1 woman missing data on interaction with people supportive of recovery.

⁶² N=82 for all social support items.

⁶³ For some children, a return to their mother’s care was neither possible (e.g., due to termination of parental rights) or in the child’s best interest (e.g., a long-term living arrangement in which the child has bonded with the caregiver). In addition, some women may have resumed a parenting role without actually being their children’s primary caregiver; data was not available to more fully describe these circumstances.

At the time of the six month follow-up interview, one-third of the women (n=18 of 60, or 30.0%) had at least one of her children returned to her care, either as the sole caregiver or under joint custody with the child's father. Specifically:

- Among the 33 women who had one or more minor children informally living with another caregiver at intake, 12 women had one or more of these children returned to her care at follow-up.
- Among the 39 women who had one or more minor children formally placed with another caregiver through a court order at intake, 7 women had one or more of these children returned to her care at follow-up.

In addition to the 60 women who had one or more children informally or formally placed with another caregiver at the time of the initial interview, three women had newborn babies that were still in the hospital at the time of their admission to the program. At the time of the follow-up interview, two of these women had their babies living with them.

Finally, there were a total of 42 women who gave birth in the time between their initial and follow-up interviews. At the time of the six month interview, approximately three-quarters of these women (n=31 or 73.8%) had their babies in their care, and one woman's baby was still in the hospital. Among the 31 women who had their babies in their care at the time of the follow-up interview, most (n=24 of 31) had previous experiences of disrupted parenting with their older children. Specifically, some women (n=8) previously had had their parental rights terminated for other children, and some (n=19) had one or more minor children formally or informally placed with another caregiver at the time of the initial interview.

Providing an Alcohol and Illegal Drug-Free Family Environment at Follow-Up

As women resume – or prepare to resume – their parental role with respect to their children, it is important that they provide a drug-free, non-using environment for their children. Women with substance use disorders often have intimate partners or family members who are substance abusers (Center for Substance Abuse Treatment, 2009). As a result, a non-using family environment requires both the woman's abstinence and a choice on her part to live with others who are not using. The PRFR program addressed these issues directly with the woman, but also through the involvement of family members and significant others in treatment.

As a result, the analysis explored the extent to which women were providing an alcohol and drug-free environment for their children at follow-up. Women's ability to provide this environment can be described using the following levels of functioning:

Level 1 represents the long term goal of women strengthening their role as mothers and providing a non-using environment for their children. Women who are functioning at Level 1 have their minor children living with them in a home free of the use of alcohol or illegal drugs.⁶⁴ There is no assumption that all women have the ability to function at Level 1. For example, some women will not be able to resume full parenting responsibilities, either because their children are permanently placed outside of their care or because the decision to return their children has not yet been made.

Level 2 is defined as living in a home free of the use of alcohol or illegal drugs.⁶⁵ While these women do not have their children living with them, they have created a non-using family environment which may benefit visiting minor children and/or adult children. For some women whose children have been removed, a non-using environment may be a pre-condition for having their children returned to them.

Level 3 is defined as living in a home in which the woman is using and/or she is living with another adult who has a current alcohol or drug problem. Although these women do not have their children living with them, visiting children may be exposed to an environment in which someone is using.

Level 4 represents the most undesirable situation. Minor children are residing in a family environment in which their mother and/or another adult are using alcohol or illegal drugs.

⁶⁴ Women at Level 1 had no days of alcohol or illegal drug use. However, some (n=15 of the 36) were using prescription medications (with a prescription), the most common of which were methadone, Suboxone, Subutex, and Vicodin.

⁶⁵ Women at Level 2 had no days of alcohol or illegal drug use. However, some (n=10 of the 25) were using prescription medications (with a prescription), the most common of which were benzodiazepines, tranquilizers or sedatives, and methadone.

Table 12 describes the level of functioning at follow-up with respect to providing a family environment free of alcohol use and the use of illegal drugs.

Table 12: Levels of Alcohol and Illegal Drug-Free Family Environment at Follow-Up

Levels	N	%	Cumulative %
Level 1: Children living in a home free of alcohol & illegal drugs.	36	43.9%	43.9%
Level 2: Home is free of alcohol & illegal drugs, without children.	25	30.5%	74.4%
Level 3: Someone using alcohol or illegal drugs in the home, without children.	8	9.8%	84.1%
Level 4: Children living in a home with someone using alcohol and/or illegal drugs.	13	15.9%	100.0%

N=82.

As Table 12 indicates, at the six month follow-up approximately three-quarters of the women (n=61 or 74.4%) were providing an alcohol and drug-free family environment for children who were living with them and/or visiting children. Specifically, approximately 45% of the women (n=36 or 43.9%) were living with one or more of their minor children in an environment free of alcohol or illegal drug use. These women were parenting anywhere from one to four minor children (mean=1.39, median=1.00), for a total of 50 children. All 50 of these children were now living in an alcohol and drug-free family environment.

In addition, approximately 30% of the women (n=25 or 30.5%) were providing an environment free of alcohol and illegal drug use, although they did not have minor children residing with them. These women had minor children who may have benefited from visiting their mothers in a non-using environment (range = 1 to 6 children, mean=3.12, median=3.00). In addition, for women involved in the child welfare system, a non-using environment may be a pre-condition for having their children returned to them.

However, approximately one-quarter of the women (n=21 or 25.7%) were living in environments that were not alcohol and drug-free at follow-up, either due to their own use or to the use of others living in the home. Some of these women did not actually have children residing with them (n=8 or 9.8%). However, some (n=13 or 15.9%) were in fact parenting children in an environment in which there was someone with a current drug or alcohol problem (usually the mother herself). These women were parenting anywhere from one to eight minor children (mean=2.15, median = 2.00). As a result, at follow-up a total of 28 children were living in an environment in which there was someone using alcohol or illegal drugs. Given the children's past experience of their mother's use, this continued exposure to substance use may create challenges for these children.

Quality of Life

Treatment programs have long recognized that women who enter substance abuse treatment experience a relatively poor quality of life in a variety of domains. The published literature is just beginning to recognize quality of life as important to the concept of recovery and to expand the definition of treatment success to include improved quality of life (e.g., Center for Substance Abuse Treatment, 2009; Tracy et al., in press). It is anticipated that women's quality of life will increase as they move into recovery, address trauma and mental health issues, and focus on improved family functioning.

In order to specifically explore women's perceptions of their quality of life, the evaluation interviews included the generic version of the Ferrans and Powers Quality of Life Index (QLI) (Ferrans & Powers, 1985). The QLI includes a total of 66 items, each rated on a 1 to 6 scale. Respondents are first asked to rate their satisfaction with 33 items related to various areas of their life, and are then asked to rate how important each of those areas is to them personally. Life areas that are rated as more important are more heavily weighted in the scoring of satisfaction. The instrument produces an overall quality of life score and subscale scores in four domains: Health and Functioning, Social and Economic, Psychological/Spiritual, and Family. Overall scores and subscale scores on the QLI range from 0 to 30, with higher scores indicative of higher life satisfaction.

A total of 53 women completed the QLI at both the initial and the six month follow-up interview.⁶⁶ Because the QLI was designed as a research measure, there are no clinical cutoff scores, and little has been published on its use with individuals participating in substance abuse treatment. However, information available in the literature provides some context for the PRFR women’s scores on the QLI at the time they entered the program. For example:

- At intake, the PRFR women’s mean overall score of 18.97 (SD = 4.85) was higher than Atkinson et al.’s (1997) sample of adult Canadian outpatients with a diagnosis of depression (mean = 13.9, SD = 4.2).
- At intake, the PRFR women’s mean overall score of 18.97 (SD = 4.85) was lower than Schreier and Williams’s (2004) sample of African American and Caucasian women receiving treatment for breast cancer (mean = 23.1, SD not reported).

It is difficult to contextualize the PRFR women’s QLI scores given that data from a comparable population is not available in the published literature. However, it appears that the overall QLI score for the PRFR women falls within the range of scores found among others who are experiencing challenging life events such as depression or significant health challenges.

Pre-Post Changes in Women’s Perceived Quality of Life

Paired t-tests were conducted to compare women’s quality of life as measured by the QLI at the time of the initial interview and at the time of the six month interview. The t-tests were conducted for: 1) the QLI overall score and 2) scores for each of the four life domains included on the QLI (Health and Functioning, Social and Economic, Psychological/Spiritual, and Family). Table 13 lists the results of these statistical tests.

Table 13: Pre-Post Means and Paired T-Tests for QLI Overall and Life Domain Scores

QLI Scores	At the Time of the Initial Interview	At the Time of the 6 Month Interview	t Value	p Value
Overall Score	18.97	21.81	4.27	.000*
Health and Functioning	19.38	22.08	3.42	.001*
Social and Economic	14.55	18.14	4.84	.000*
Psychological/Spiritual	20.59	23.78	3.73	.000*
Family	21.76	23.44	2.44	.018*

N=53, with 29 women missing QLI data at either the initial or follow-up interview.

Overall and subscale scores on the QLI range from 0 to 30. Higher scores are indicative of higher satisfaction with life, and lower scores are indicative of less satisfaction with life.

The p value refers to the level of statistical significance of the t value from the paired samples t-test. P-values of less than 0.05 are considered statistically significant and are marked with an asterisk (*).

As Table 13 shows, PRFR women’s mean overall scores demonstrated a statistically significant increase from the time of the initial interview to the time of the follow-up interview, suggesting an increase in women’s perceived overall quality of life. In addition, statistically significant pre-post increases were seen in the mean scores for all four domains measured by the QLI: 1) Health and Functioning (which includes items related physical health, leisure, functioning in daily life, and attitudes about the future), 2) Social and Economic (which includes items related to social and emotional support, education, and employment), 3) Psychological/Spiritual (which includes items related to personal fulfillment, religious faith, and general satisfaction), and 4) Family (which includes items related to children, family functioning, and emotional support from family).

⁶⁶ N=53 for all QLI analyses, with 29 women missing data on the QLI at either the initial or follow-up interviews. QLI data was missing when women declined to complete the measure (either at the outset or partway through), when women had limited time for the evaluation interview, or when women were struggling with interview completion due to medication side effects, mental health issues, etc.

Although the pre-post increases in mean scores on the QLI suggest that women experienced greater life satisfaction in all domains at the time of the six month follow-up interview than at intake, it should be noted that women's scores on the Social and Economic domain remained somewhat lower than the other domain scores at both intake (mean = 14.55) and at six months (mean = 18.14). This may be reflective of the limited employment, education, and income levels reported by women at the time of both the intake and the follow-up interviews (e.g., none of the women were employed, approximately half had less than a high school education, and their overall income was extremely limited).

Effects of Maternal Substance Use

Women with substantial histories of drug or alcohol use often experience difficulties and/or disruptions in parenting, at times including child abuse or neglect (Camp & Finkelstein, 1997). As a result of these and other difficulties, children whose mothers have substance use disorders are at increased risk for social-emotional, physical, and academic problems (Center for Substance Abuse Treatment, 2009; Rinehart et al., 2005). To address these challenges, the PRFR program provided clinical support for women in their roles as mothers and offered the Nurturing Program for Families in Substance Abuse Treatment and Recovery (NPFSTR), an evidence-based parenting group designed specifically for people in treatment (Camp & Finkelstein, 1997). In addition, the program provided direct services to children, including those children residing in treatment with their mothers and children residing elsewhere. Child-specific services included screening for developmental delays and behavioral health issues, direct therapy (e.g., play therapy, art therapy, filial therapy, etc.), and psychoeducational groups for older youth.

To provide a snapshot of the children and to describe the effects of maternal substance use, the analysis of the PRFR data examined: 1) the characteristics of the women's children and the challenges they faced, 2) the developmental challenges experienced by children, 3) pre-post changes that occurred in the placement of children, including reunification with their mothers, and 4) birth outcomes for newborns and their living arrangements at follow-up. Each of these analyses was based on a slightly different subset of the women's children, as the data was collected at various points in time and by different staff members. However, together the data provide a fuller picture of the children of the women enrolled in the PRFR program.

Children's Demographics and Challenges Faced

Women who participated in the initial evaluation interview and the six month follow-up interview were asked basic questions about all the children to whom they had given birth. Specifically, information was gathered about each child's age, gender, and living arrangements at the time of the interview. As a result, demographic information was available for the children of all women who participated in the initial interview.

In addition, after being admitted to the program, women were invited to participate in a separate interview about each of her children with the program's Child and Family Case Manager. This interview utilized the Child Data Collection Tool (CDCT), a comprehensive instrument developed for SAMHSA's PPW cross-site evaluation efforts. Among other items, the tool included questions about child demographics, contact children had with their parents, trauma exposure, and prenatal risk factors. Although this information was only collected from a small subset of the women, it provides some more detailed information about the children and the challenges they faced.

Child Demographics

The women who were admitted to the PRFR program reported having given birth to a total of 316 children at the time of the initial interview.⁶⁷ Nine of these children (or 2.8 %) had died at birth or in early childhood. Approximately half of the 307 living children (n=155 or 50.5%) were female, and half (n=152 or 49.5%) were male. Table 14 provides details about the ages of children reported by women at their admission to the program.

⁶⁷ N=100, with 10 women reporting no children (but pregnant) at the time of the initial interview.

Table 14: Ages of Women’s Children at Admission

Age Group	All Children at Admission (N=307*)		
	N	%	Cumulative %
Under 1 year	45	14.7%	14.7%
1 to 2 years	53	17.3%	31.9%
3 to 5 years	54	17.6%	49.5%
6 to 11 years	78	25.4%	74.9%
12 to 17 years	52	16.9%	91.9%
18 and older	25	8.1%	100.0%
Children’s age statistics (in years)	Mean=7.00 Median=6.00	SD=6.14 Range=0-25	

*Nine children were deceased and were therefore excluded from the age analysis.

The children’s ages at the time of the initial interview ranged from 0 to 25 years, with a mean age of 7.0 years and a median age of 6.0 years. Approximately half of were under six years of age (n=152 or 49.5%), approximately 40% (n=130 or 42.3%) were between the ages of six and 17, and the remaining 8% (n=25 or 8.1%) were 18 or older at the time of the intake interview.

Children: Additional Information and Challenges Faced

The PRFR program’s Child and Family Case Manager invited women to participate in a separate interview about each of her children around the time of her admission to the program. The Child Data Collection Tool (CDCT) was conducted with those who agreed to participate. Women were interviewed about all of the minor children still in their legal custody, including both children who were living with them in residential treatment and children who were not in their care at the time of the interview. The available CDCT information provided a more detailed picture of the women’s children, including demographic information, involvement with their parents, and special concerns such as disrupted caregiving and exposure to violence.⁶⁸

A total of 68 mothers provided CDCT information regarding a total of 130 children. The mothers each had from 1 to 8 minor children in their legal custody, with a mean of 1.9 children (SD = 1.24). The children ranged in age from newborn to 17 years old, with a mean age of 4.4 years old (SD = 4.95) and a median age of 2 years old. Of the 130 children, slightly over half (n=72 or 55.4%) were female, and slightly less than half (n=58 or 44.6%) were male. The majority of the children were African-American (n=70 or 53.8%), followed by White (n=25 or 19.2%), Multiracial (n=22 or 16.9%), and Hispanic/Latino (n=13 or 10.0%). For the children who were multiracial, the most common ethnicities were Latino/African American (n=6), African American/White (n=5), and Native American/White (n=5).

Approximately 60% of the children described by the CDCT interviews (n=75 or 58.6%) were not living with their biological mother at her admission.⁶⁹ However (according to the mothers themselves), approximately three-quarters of these children (n=54 of 75, or 72.0%) were involved with their mothers in some way. The most common types of involvement included visits with their mother (n=47 or 62.7%) and phone calls (n=41 or 54.7%). A smaller number of children had mothers who wrote letters (n=11 or 14.7%), provided monetary support (n=7 or 9.3%), provided child care (n=4 or 5.3%), or were involved in some other way such as providing diapers or clothing (n=2 or 2.7%).

⁶⁸ The CDCT included a large number of questions about each of the women’s children. However, a review of the quality of the information provided suggested that some items were more reliably and consistently answered than others. As a result, a subset of the CDCT questions were utilized for the present analysis.

⁶⁹ N=128, with 2 children missing data on child placement.

While most of the children described by the CDCT interviews were not living with their biological father, many of the children had contact with or some other form of involvement with their fathers. Specifically, approximately 80% of the children were not living with their biological father (n=104 or 81.3%).^{70, 71} Of those children, almost half had fathers who were involved in their lives in some way (n=51 of 104, or 49.0%). The primary ways in which fathers were involved with these children included visits (n=38 or 36.5%) and phone calls (n=29 or 27.9%). A smaller number of children had fathers who provided monetary support (n=15 or 14.4%), wrote letters (n=6 or 5.8%), provided child care (n=4 or 3.8%), or were involved in some other way such as providing diapers or clothing (n=2 or 1.9%).

Two notable areas of special concern for the children of PRFR women were trauma exposure and prenatal risk factors. Mothers indicated that a substantial proportion of the children had experiences of being exposed to caregiver disruption, abuse, neglect, or other trauma. Specifically, just over half (n=71 or 54.6%) of the children had been removed from their mother's care at least once in their lifetime, with approximately 10% (n=11 or 8.5%) of the children having been removed from their mother's care twice.⁷² Also, over one-quarter of the children had witnessed violence in their lifetime (n=39 or 30.0%) and/or had been exposed to trauma such as shootings or fights in their home, school, or community (n=38 or 29.2%). While only 8% (n=10 or 7.7%) of the children were reported by their mothers as having directly been a victim of violence themselves, all of those who had been a victim experienced the violence inside the home.

In addition, many of the children the women had prior to entering treatment had experienced prenatal substance exposure and/or medical problems after birth. Specifically, while the majority of the women reported that they had received prenatal care while pregnant with their previous children (n=123 or 94.6% of the children had prenatal visits), almost one-third of women's previous children had tested positive for substances at birth (n=40 or 30.8%) and almost one-quarter had required intensive medical care after birth (n=29 or 22.3%). In addition to being exposed to maternal prenatal substance use, some of their previous children also had fathers who abused substances. Specifically, mothers reported that over one-third of the children had a father with a substance abuse problem (n=47 or 37.6%).⁷³

Developmental Challenges for Children

The PRFR program's Child and Family Case Manager asked women for permission to screen their young children for developmental concerns using the Denver Developmental Screening Test (DDST-II) (Frankenburg et al., 1992). The DDST-II is a revision of the earlier Denver Developmental Screening Test (DDST), which was first published by Frankenburg in 1967. It is a widely used developmental screening tool that assesses the achievement of developmental milestones among children ages 0 to 6 years old. Using 125 observational and parent report items, the DDST-II provides a brief screening of a child's development in four domains: Personal-Social, Language, Fine Motor, and Gross Motor skills (Frankenburg et al., 1996). The scoring of each item is based upon the percentage of same-age children in the standardization sample that passed the item, with each scored as "Advanced", "Normal", "Caution", "Delayed", or "No Opportunity". Interpretation of the combined scored items yields an overall screening result or "Normal", "Suspect", or "Untestable".

A total of 52 children were screened using the DDST-II at the time their mothers were admitted to the program. These children fell within the targeted age range for the DDST-II, ranging in age from 11 days to 5.89 years, with a mean of 1.12 years and a median of 0.36 years (approximately four months).

Results on the DDST-II indicate that approximately 55% (n=28 or 53.8%) of the children screened at intake had an overall screening result indicative of "Normal" developmental progress (i.e., they passed nearly all items accomplished by 75%-90% of same-age children). Approximately 40% (n=22 or 42.3%) had "Suspect" results (i.e., they refused or failed two or more items accomplished by 75%-90% and/or one or more items accomplished by 90% of same-age children). The remaining two children (or 3.8%) were considered to be "Untestable" at the time the DDST-II was administered (i.e., they refused two or

⁷⁰ N=128, with 2 children missing data on father involvement.

⁷¹ It must be noted that 5 children had fathers who were deceased, and the identity of the father was unknown for 4 of the children.

⁷² N=130.

⁷³ N=125; 4 children had unknown fathers, and 1 child was missing data on father's substance abuse.

more items accomplished by 75%-90% and/or one or more items accomplished by 90% of same-age children).⁷⁴

In an attempt to explore the developmental areas in which the children were more or less challenged, the analysis examined the scores for each of the four DDST-II domains: Personal-Social, Language, Gross Motor, and Fine Motor skills. Table 15 presents the number of children who had one or more “Caution” or “Delay” items on each of the four domains.

Table 15: Children with Cautions or Delays on DDST-II Domains at Admission

DDST-II Domains	Children with One or More Caution or Delay* Items	
	N	%
Personal – Social	14	26.9%
Language	10	19.2%
Gross Motor	15	28.8%
Fine Motor – Adaptive	25	48.1%

N=52.

*A Caution is an item that a child refuses or fails to perform which was completed by 75%-90% of same-age children in the standardization sample. A Delay is an item that a child refuses or fails to perform which was completed by 90% of same-age children in the standardization sample.

As Table 15 above shows, the Fine Motor domain was the DDST-II domain in which the most children exhibited Cautions or Delays, with approximately half of the children screened at intake showing at least one Caution and/or Delay in that domain. The Fine Motor-Adaptive domain includes items related to eye-hand coordination, manipulation of small objects, and problem solving. Smaller proportions of children had Cautions or Delays in the other DDST-II domains: approximately 30% exhibited Cautions and/or Delays in the Gross Motor domain (which includes items related to muscle control such as sitting up, standing, and walking); approximately one-quarter exhibited Cautions and/or Delays in the Personal-Social domain (which includes items related to interacting with others, indicating wants, and caring for one’s self); and approximately 20% exhibited Cautions and/or Delays in the Language domain (which includes items related to responding to sounds/requests, vocalizing sounds/words, and identifying objects).

In addition to the DDST-II being administered to children at the time of their mothers’ admission to the program, the DDST-II was administered to children whose mothers were still in the PRFR program three months later. A total of 19 children were administered the DDST-II both at the time of their mothers’ admission to the program and again three months later. The number of follow-up screenings was too small to conduct a valid and reliable analysis of pre-post changes. However, an exploratory analysis was performed to identify any trends that occurred in the pre-post DDST-II screening results. The results of this exploratory analysis suggest that approximately two-thirds of the 19 children either maintained a Normal DDST-II result or had results that improved from intake to the three month follow-up screening. However, approximately one-third of the children either maintained Suspect or Untestable results or exhibited a decline in their screening results. Additional information about the pre-post DDST-II screening results can be found in Appendix C.

While the number of intake and follow-up screenings is too small to provide a valid analysis of pre-post changes in children’s developmental status, PRFR program staff report that the DDST-II has been a valuable screening tool for enhancing their work with women and their young children. For example, staff indicate that the DDST-II has facilitated the identification of children with potential developmental problems so they can be referred for further assessment and intervention services if necessary. In

⁷⁴ The authors of the DDST-II advise test users to re-administer the screening to children who receive an “Untestable” result within one to two weeks of the first screening. For the two children who received an “Untestable” result, attempts were made to re-administer the DDST-II, but the children’s mothers could not be reached within the window.

addition, they report that the DDST-II has been a helpful tool for engaging parents in recognizing their children's strengths and for providing feedback to them about their child's developmental status.

Children's Placement and Reunification

Women who participated in the six month follow-up interview with evaluation staff were again asked basic questions about all the children to whom they had given birth. Specifically, information was gathered about each child's age, gender, and living arrangements at the time of the follow-up interview. As a result, demographic and placement information was available for the children of all women who participated in the six month interviews.

The women who completed a six month follow-up interview with evaluation staff reported having given birth to a total of 250 children at the time of their admission to the program.⁷⁵ Similar to the children reported by all enrolled women at their admission to the program, approximately 90% of these children (n=223 or 89.2%) were under the age of 18, approximately 10% (n=19 or 7.6%) were adults, and eight (or 3.2%) had died at birth or in early childhood. During the course of the interviews, the women provided information about where each of their children was living, including whether or not they were in a formal or informal placement.

Children's Placement at their Mother's Admission

Information about children's living situations indicates that among the 223 minor children, approximately 10% (n=21 or 9.4%) were living with their mothers at intake. Most of these children were residing with their mother as the primary caregiver (n=18 of the 21), but a small number were cared for through joint custody of both parents (n=3 of the 21).

Approximately 30% of the minor children (n=68 or 30.5%) were informally living with another caregiver, either with their fathers (n=33 or 14.8%) or with other family or friends (n=35 or 15.7%). In addition, three children (or 1.3%) were newborn babies who were still being cared for at the hospital at the time of the initial interview with their mothers.

Approximately one-third of the children (n=72 or 32.3%) were formally placed due to a child protection court order. Specifically, 20% of the children (n=45 or 20.2%) were formally placed with family or friends, and approximately 10% (n=27 or 12.1%) were formally placed with someone other than family or friends (most likely in non-relative foster care).⁷⁶ Women's parental rights had been terminated for approximately one-quarter of the children reported at intake (n=59 or 26.5%).⁷⁷

Pre-Post Changes in Children's Placement

An analysis of children's living situations at the time of their mother's initial interview and at the time of the six month follow-up was conducted to explore the extent to which children were reunified with their mothers following their admission to the PRFR program.⁷⁸ This analysis suggests that a number of children were returned to their mothers' care following an informal or a formal placement with another caregiver. Specifically:

- Of the 68 children who were informally placed with their fathers or with other family/friends at intake, one-third (n=23 or 33.8%) were living with their mothers or under joint custody at the time of the six month follow-up interview. Approximately 45% (n=31 or 45.6%) were living informally

⁷⁵ N=82 women.

⁷⁶ Of the children who were formally placed with family or friends, it was known that four children were formally placed with their biological fathers at women's admission to the program.

⁷⁷ For the 19 adult children, 12 were living independently at the time of their mother's admission to treatment, five were living with family or friends, and one was incarcerated. For one of the adult children, the woman's parental rights had been terminated; therefore she was unsure of his living situation at the time of the interview.

⁷⁸ For some children, a return to their mother's care was neither possible (e.g., due to termination of parental rights) or in the child's best interest (e.g., a long-term living arrangement in which the child has bonded with the caregiver). In addition, some women may have resumed a parenting role without actually being their children's primary caregiver; data was not available to more fully describe these circumstances.

with their fathers or other family/friends, and approximately 15% (n=11 or 16.2%) had moved into a formal placement with other caregivers at follow-up.

- Of the 72 children who were formally placed with another caregiver due to a court order at intake, approximately 15% (n=9 or 12.5%) were living with their mothers, and approximately 10% (n=6 or 8.3%) were living informally with their fathers or other family/friends a follow-up. However, three-quarters of the children who were in formal placements at intake were still in formal placements at the time of the follow-up interview (n=54 or 75.0%).
- Of the 21 minor children who were living with their mothers or under joint custody of both parents at intake, three-quarters (n=16 or 76.2%) were still in their mothers' care at the six month follow-up interview. However, a small number of children (n=5 or 23.8%) who had been with their mothers at intake were formally placed with other caregivers at follow-up. In addition, two of the three newborn babies who were in the hospital at intake were living with their mothers at follow-up.

Overall, a total of 32 minor children (or 22.9% of the 140 who were in informal or formal placements at the time of the initial interview) had been returned to their mother's care (or to their joint custody) by the time of the six month follow-up interview. However, it must be noted that women's parental rights had been terminated for a small number of children (n=6) between the time of the intake and the follow-up interview.

Children's Placement at Follow-Up

Placement information for the 164 minor children for whom women's parental rights had not been terminated at intake indicates that approximately 30% (n=50 or 30.5%) were living with their mothers at the time of the follow-up interview. Most of these children (n=46 of the 50) were living with their mothers as the primary caregiver, and a small number (n=4 of the 50) were living under the joint custody of both parents.

Approximately one-quarter of the children (n=37 or 22.6%) were living informally with family or friends at the time of the follow-up. Specifically, 10% (n=17 or 10.4%) were living with their fathers and approximately 10% (n=20 or 12.2%) were living informally with other family or friends.

Approximately 45% of the children (n=71 or 43.3%) had formal placements due to a child protection court order, with 30% (n=49 or 29.9%) formally placed with family or friends, and approximately 15% (n=22 or 13.4%) formally placed with someone other than family or friends. Finally, a small number of children (n=6 or 3.7%) were not in their mothers' care because the mother's parental rights had been terminated.

Overall, the minor children of the PRFR women were in a variety of living arrangements at the time of the six month follow-up interview. While only about 30% (n=50 or 30.5%) were in their mother's care, it is important to note that only about 15% (n=22 or 13.4%) were in formal placements with caregivers to whom they were not related (e.g., non-relative foster care).

Birth Outcomes and Placement Status for Newborns

The PRFR program was designed specifically to serve pregnant and postpartum women. As a result, efforts were made to connect pregnant women to prenatal care, emphasize the elements of a healthy pregnancy, create an environment that supported celebrating and embracing the arrival of newborns, and assist women in preparing to care for their babies. The evaluation tracked on key birth outcomes, including birth weight and the presence of alcohol or illegal drugs in babies' systems at birth. In addition, the evaluation gathered information from women on babies' living arrangements at follow-up, including whether or not they were placed with their mothers.

Birth Outcomes

At the time of their initial interview, approximately 60% of the PRFR women were pregnant (n=68 or 62.4%).⁷⁹ All of these women were either already connected to prenatal care or were linked to prenatal services while they were in residential treatment.

A total of 37 babies were born to these women during the time their mothers were in residential treatment. At birth, the babies ranged in weight from 4.13 pounds to 8.76 pounds, with a mean of 6.61 pounds and a median of 6.70 pounds.⁸⁰ Overall, approximately 80% of the babies born (n=30 or 81.1%) were within the normal birth weight for their gestational age.⁸¹ These successful outcomes were achieved both for women who had been in treatment at least two months before their babies were born and for women with a shorter time in treatment prior to birth. However, almost half of the low birth weight babies (3 of the 7 babies) were born to mothers who were in treatment for less than one month prior to the birth.

In addition to birth weight, information was available on whether or not the babies were born with alcohol or illegal drugs in their system. Approximately 85% of the babies (n=32 or 86.5%) tested negative for alcohol and illegal substances at birth.⁸² Again, this successful outcome was achieved for women who had been in treatment of varying durations. However, almost half of the babies who tested positive for alcohol or illegal substances at birth (2 of the 5) were born to mothers who had been in treatment for less than one month prior to the birth.

Placement of Newborns at Follow-Up

A total of 43 babies were born to women between the time of their initial and six month follow-up interviews. Among these babies, approximately 70% (n=31 or 72.1%) were living with their mothers at the time of the follow-up interview. However, approximately one-quarter of the babies (n=11 or 25.6%) were formally placed with another caregiver as a result of a child protective order, and one baby (or 2.3%) was still in the hospital at the time of the follow-up interview. Among the babies who were formally placed at the time of the follow-up, about half (n=5 of 11) were placed with family or friends, and the other half (n=6 of the 11) were placed with someone other than a family or friend. Overall, while most of the babies born between the initial and follow-up interviews ultimately lived with their mothers (n=31 or 72.1%), some had been taken into temporary protective custody (n=11 or 25.6%) by the time of the mother's follow-up interview.

⁷⁹ N=109, with 1 woman unsure whether or not she was pregnant at the time of admission.

⁸⁰ N=37.

⁸¹ N=37.

⁸² A small number of the babies born without alcohol or illegal drugs in their system (n=4 of 37, or 10.8%) tested positive for methadone, which was legally prescribed to their mothers.

References

- Atkinson, M., Zibin, S., & Chuang, H. (1997). Characterizing quality of life among patients with chronic mental illness: A critical examination of the self-report methodology. *American Journal of Psychiatry*, *154*(1), 99-105.
- Camp, J.M. & Finkelstein, N. (1997). Parenting training for women in residential substance abuse treatment: Results of a demonstration project. *Journal of Substance Abuse Treatment*, *14*, 411-422.
- Center for Substance Abuse Treatment (2009). *Substance Abuse Treatment: Addressing the Specific Needs of Women*. Treatment Improvement Protocol (TIP) Series 51. HHS Publication No. (SMA) 09-4426. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Chilcoat, H.D. & Menard, C. (2003). Epidemiological investigations: Comorbidity of posttraumatic stress disorder and substance use disorder. In P.C. Ouimette & P.J. Brown (Eds.), *Trauma and Substance Abuse: Causes, Consequences and Treatment of Comorbid Disorders* (pp. 9-28). Washington, DC: American Psychological Association.
- Eggleston, A., Calhoun, P., Svikis, D., Tuten, M., Chisolm, M., & Jones, H. (2009). Suicidality, aggression, and other treatment considerations among pregnant, substance-dependent women with posttraumatic stress disorder. *Comprehensive Psychiatry*, *50*(5), 415-423.
- Eisen, S.V., Normand, S.L., Belanger, A.J., Spiro, A., & Esch, D. (2004). The revised Behavior and Symptom Identification Scale (BASIS-R). *Medical Care*, *42*(12), 1230-1241.
- Eisen, S.V., Ranganathan, G., Seal, P., & Spiro, A. (2007). Measuring clinically meaningful change following mental health treatment. *The Journal of Behavioral Health Services & Research*, *34*(3), 272-289.
- Elway, A.R., Ranganathan, G., & Eisen, S.V. (2008). Race-ethnicity and diagnosis as predictors of outpatient service use among treatment initiators. *Psychiatric Services*, *59*(11), 1285-1291.
- Farley, M., Golding, J., Young, G., Mulligan, M. & Minkoff, J. (2004). Trauma history and relapse probability among patients seeking substance abuse treatment. *Journal of Substance Abuse Treatment*, *27*(2), 161-167.
- Ferrans, C., & Powers, M. (1985). Quality of Life Index: Development and psychometric properties. *Advances in Nursing Science*, *8*, 15-24.
- Frankenburg, W.K., Dodds, J., Archer, P., Shapiro, H., & Bresnick, B. (1992). The Denver II: A major revision and restandardization of the Denver Developmental Screening Test. *Pediatrics*, *89*(1), 91-97.
- Frankenburg, W.K., Dodds, J., Archer, P., Bresnick, B., Maschka, P., Edelman, N., & Shapiro, H. (1996). *Denver II technical manual*. Denver, Colorado: Denver Developmental Materials, Inc.
- Hien, D., Campbell, A., Ruglass, L., Hu, M., & Killeen, T. (2010). The role of alcohol misuse in PTSD outcomes for women in community treatment: a secondary analysis of NIDA's Women and Trauma Study. *Drug and Alcohol Dependence*, *111*(1-2), 114-119.
- McLellan, A.T. Luborsky, L., Woody, G.E., & O'Brien, C.P. (1980). An improved evaluation instrument for substance abuse patients: The Addiction Severity Index. *Journal of Nervous and Mental Disease*, *168*, 26-33.
- Najavits, L.M. (2002). *Seeking Safety: A Treatment Manual for PTSD and Substance Abuse*. New York: Guilford.

Najavits LM, Weiss RD, Shaw SR (1997). The link between substance abuse and posttraumatic stress disorder in women: A research review. American Journal on Addictions, 6, 273-283.

National Institute on Drug Abuse (2010). Drugs, Brain, and Behavior: The Science of Addiction (National Institutes of Health, Pub. No. 10-5605).

National Institute on Drug Abuse (2009). Principles of Drug Addiction Treatment: A Research-Based Guide (National Institutes of Health, Pub. No. 09-4180).

Newmann, J., & Sallmann, J. (2004). Women, Trauma Histories, and Co-occurring Disorders: Assessing the Scope of the Problem. Social Service Review, 78(3), 466-499.

Rinehart, D.J., Becker, M.A., Buckley, P.R., Dailey, K., Reichardt, C.S., Graeber, C., VanDeMark, N.R., and Brown, E. (2005). The relationship between mothers' child abuse potential and current mental health symptoms: Implications for screening and referral. Journal of Behavior Health Services & Research, 32(2):155-166.

Rohsenow, D.J., Corbett, R., & Devine, D. (1988). Molested as children: A hidden contribution to substance abuse? Journal of Substance Abuse Treatment, 5, 13-18.

Savage, A., Quiros, L., Dodd, S., & Bonavota, D. (2007). Building Trauma Informed Practice: Appreciating the Impact of Trauma in the Lives of Women with Substance Abuse and Mental Health Problems. Journal of Social Work Practice in the Addictions, 7(1-2), 91-116.

Schreier, A.M., & Williams, S.A. (2004). Anxiety and quality of life of women who receive radiation or chemotherapy for breast cancer. Oncology Nursing Forum, 31(1), 127-130.

Stocker, S. (1998). Men and women in drug abuse treatment relapse at different rates and for different reasons. NIDA Notes, 13(4). National Institute on Drug Abuse, National Institute of Health, U.S. Department of Health and Human Services.

Tracy, E.M., Laudet, A.B., Min, M.O., Kim, H., Brown, S., Jun, M.K., & Singer, L. (in press). Prospective patterns and correlates of quality of life among women in substance abuse treatment. Drug and Alcohol Dependence, Epub ahead of print, 2-12-2012.

Walitzer, K.S., and Dearing, R.L. (2006). Gender differences in alcohol and substance use relapse. Clinical Psychology Review, 26(2):128-148.

Appendix A:

Representativeness of Women Followed Up at
Six Months

Appendix A: Representativeness of Women Followed Up at Six Months

The 93 women who were eligible for a follow-up interview and the 82 women who completed the follow-up were compared with respect to: 1) demographics, 2) length of stay in treatment, and 3) discharge status.

Demographics

Table A1 compares the demographic information for all 93 women who were eligible for a follow-up interview during the data collection period to the demographic information for the 82 women who did complete a six month interview.

Table A1: Demographic Comparisons between Women Eligible for and Women who Completed a Six Month Follow-up Interview

Demographic Characteristics	Women Eligible for a 6 Month Interview (N=93)		Women who Completed a 6 Month Interview (N=82)	
	N	%	N	%
Race/Ethnicity				
African American/Black	48	51.6%	44	53.7%
Caucasian/White	33	35.5%	29	35.4%
Latina/Hispanic	8	8.6%	6	7.3%
Native American	3	3.2%	2	2.4%
Multiracial	1	1.1%	1	1.2%
Age at Admission				
19 years and younger	1	1.1%	1	1.2%
20 to 24 years	33	35.5%	26	31.7%
25 to 29 years	23	24.7%	23	28.0%
30 to 34 years	19	20.4%	16	19.5%
35 to 39 years	15	16.1%	14	17.1%
40 years and over	2	2.2%	2	2.4%
Age statistics (in years)	Mean=28.19 Median=28.00	Range=19-42 SD=5.91	Mean=28.44 Median=28.00	Range=19-42 SD=5.92
Education at Admission				
8th grade or less	17	18.3%	17	20.7%
9th to 11th grade	31	33.3%	24	29.3%
High school diploma /GED	27	29.0%	23	28.0%
Some college or voc/tech	17	18.3%	17	20.7%
College degree	1	1.1%	1	1.2%
Family Status at Admission				
Mothers and/or pregnant	93	100.0%	82	100.0%
Mothers	85	91.4%	77	93.9%
Number of children (for those who were mothers)	Mean=3.13 Median=2.00	Range=1-12 SD=2.30	Mean=3.25 Median=3.00	Range=1-12 SD=2.36
Pregnant*	5	62.0%	51	63.0%

*One woman was unsure whether or not she was pregnant at the time of admission; therefore N=92 for the group of women eligible for follow-up and N=81 for women who completed a six month interview.

Representativeness

As Table A1 shows, with respect to demographic characteristics, the women who completed a six month interview were reasonably similar to the women whose follow-up window opened during the data collection period. Given the high follow-up rate (88.2%) and the comparability in these and other characteristics (e.g., income, employment, legal status), it appears that the women interviewed were demographically representative of all women eligible for a follow-up interview.

Description of Women Followed Up

All of the women who completed a six month interview were either mothers or pregnant at the time of their admission to the program. Specifically, approximately 95% were already mothers (n=77 or 93.9%) and approximately 60% (n=51 or 63.0%) were pregnant at admission. Approximately 60% of the women interviewed (n=50 or 61.0%) were under the age of 30, with a mean age of 28.4 and a median age of 28.0. Slightly more than half of the women (n=44 or 53.7%) described their ethnicity as Black or African American, with most of the remaining women (n=29 or 35.4%) describing themselves as White or Caucasian. While half of the women (n=41 or 50.0%) had either graduated from high school or earned their GED certificate, the other half (n=41 or 50.0%) had not completed high school (including some who had an eighth grade education or less).

Length of Stay in Treatment

Women who were eligible for a follow-up interview were compared to women who actually completed a follow-up interview with respect to their length of stay in residential treatment and their overall length of stay in Meta House services (including residential treatment, as well as day treatment and outpatient services for those women who participated in the continuum of care).

Residential Treatment Length of Stay

Table A2 compares the length of stay for the women who were eligible for a follow-up interview during the data collection period to the length of stay for the women who actually completed a six month interview.

Table A2: Residential Length of Stay for Women Eligible for and Women who Completed a Six Month Follow-up Interview

Length of Residential Program Participation	Women Eligible for a Six Month Interview (N=93)		Women who Completed a Six Month Interview (N=81)*	
	N	%	N	%
Less than 1 month	13	14.0%	12	14.8%
1 month to 1.99 months	14	15.1%	11	13.6%
2 months to 2.99 months	22	23.7%	18	22.2%
3 months to 3.99 months	13	14.0%	12	14.8%
4 months to 4.99 months	10	10.8%	8	9.9%
5 months to 5.99 months	7	7.5%	6	7.4%
6 months or more	14	15.1%	14	17.3%
Length of residential stay statistics (in months)	Mean=3.61 Median=2.96	Range=0.49-11.01 SD=2.53	Mean=3.69 Median=2.96	Range=0.43-11.01 SD=2.64

*One of the women who completed a six month interview had not yet been discharged from treatment by the end of the data collection period for length of stay (2/29/2012) and was excluded from the residential length of stay analysis.

Representativeness

As Table A2 shows, the residential length of stay was very similar for the women who completed a six month interview and the women whose follow-up window opened during the data collection period. The high follow-up rate (88.2%) appears to have ensured that the women interviewed were representative of the larger group in terms of their length of stay in residential treatment.

Description of Women Followed Up

On average, women who completed the follow-up interview remained in residential treatment for approximately three months (mean = 3.69 months; median = 2.96 months). Approximately, half of those who completed a six month interview (n=40 or 49.4%) remained in residential treatment for three months or longer. The other half (n=41 or 50.6%) stayed in residential treatment for less than three months. In addition, slightly less than 20% (n=14 or 17.3%) had a residential length of stay of six months or longer.

Overall Length of Stay

A full continuum of care was available to women who participated in the PRFR program. Women were considered to have experienced Meta House's Continuum of Care if they received additional non-residential services from Meta House within approximately one month of their discharge from residential treatment. Table A3 compares the overall length of participation in Meta House services for the women who were eligible for a follow-up interview to the overall length of stay for the women who actually completed a six month interview.

Table A3: Overall Length of Stay for Women Eligible for and Women who Completed a Six Month Follow-up Interview

Overall Length of Program Participation	Women Eligible for a Six Month Interview (N=82)*		Women who Completed a Six Month Interview (N=67)*	
	N	%	N	%
Less than 1 month	7	8.5%	5	7.5%
1 month to 1.99 months	3	3.7%	2	3.0%
2 months to 2.99 months	18	22.0%	12	17.9%
3 months to 3.99 months	11	13.4%	9	13.4%
4 months to 4.99 months	9	11.0%	9	13.4%
5 months to 5.99 months	4	4.9%	2	3.0%
6 months or more	30	36.6%	28	41.8%
Length of residential stay statistics (in months)	Mean=6.01 Median=4.32	Range=0.66-24.57 SD=5.17	Mean=6.61 Median=4.63	Range=0.43-24.57 SD=5.50

*15 of the women who completed a six month interview and 11 of the women eligible for an interview had not yet been discharged from outpatient services by the end of the data collection period for length of stay (2/29/2012). These women were not included in the overall length of stay analysis.

Representativeness

As Table A3 shows, the women who completed a six month interview were reasonably similar to the women whose follow-up window opened during the data collection period with respect to overall length of stay in treatment. However, there was a trend suggesting that interviewed women were slightly more likely to have remained longer in the full continuum of care. For example, approximately 70% of the women who were interviewed (n=48 or 71.6%) remained in treatment for three months or longer, as compared to approximately 65% of the women who were eligible for a follow-up (n=54 or 65.9%).

Description of Women Followed Up

Overall, three-quarters of the women who completed a follow-up interview (n=61 or 75.3%) participated in Meta House's continuum of care (i.e., received additional day treatment or outpatient services within one month of discharge from residential treatment). Women who completed the follow-up interview had a mean overall length of stay of approximately six months (mean = 6.61 months) and a median length of stay of approximately four months (median = 4.63 months). Approximately 70% of the women who completed a follow-up interview had an overall length of stay of three months or longer (n=48 or 71.6%), which was the originally anticipated duration of treatment. Further, approximately 40% (n=28 or 41.8%) remained engaged in some form of treatment at Meta House for six months or longer.

Residential Discharge Status

Women were considered to have graduated from the residential program if their counselors indicated that they had successfully completed the program or that they had completed with substantial improvement in some areas. Table A4 compares the graduation status for the women who were eligible for a follow-up interview during the data collection period to the graduation status for the women who actually completed a follow-up interview.

Table A4: Residential Graduation Status for Women Eligible for and Women who Completed a Six Month Follow-up Interview

Residential Graduation Status	Women Eligible for a Six Month Interview (N=93)		Women who Completed a Six Month Interview (N=81)*	
	N	%	N	%
Graduated	74	79.6%	62	76.5%
Did not graduate	19	20.4%	19	23.5%

*One of the women who completed a six month interview had not yet been discharged from treatment by the end of the data collection period for graduation status (2/29/2012) and was excluded from the graduation analysis.

Representativeness and Description of Women Followed Up

As Table A4 shows, the graduation status for women who completed a six month follow-up interview was very similar to that of women whose follow-up window opened during the data collection period. Overall, approximately three-quarters of the women who completed the follow-up interview (n=62 or 76.5%) were considered to have graduated from residential treatment (i.e., successfully completed or completed with substantial improvement in some areas).⁸³

⁸³ It must be noted that the data collection period for length of stay and discharge status continued beyond the close of the grant and, for many women, past the time of their six month follow-up interview. Slightly more than half of the women (n=46 or 56.1%) were still engaged in some form of treatment at Meta House at the time of their six month follow-up interview. Length of stay and graduation status was determined for these women after their discharge from the program (i.e., sometime after their six month interview).

Appendix B

Adjusted Days of Alcohol and Drug Use

Appendix B: Adjusted Days of Alcohol and Drug Use

A controlled environment is defined by the Addiction Severity Index as being in jail, living in an alcohol or drug treatment facility, living in a mental health treatment facility, or staying in a hospital overnight. Because initial interviews were not conducted on women's first day in residential treatment, all of the women who participated in the PRFR program were in a controlled environment for at least one day during the month prior to their initial interview. In addition, some of the women had been in some other type of controlled environment prior to that first interview (e.g., n=18 or 22.0% had been in jail, n=10 or 12.2% had been in the hospital, etc.).⁸⁴ The range of stay in a controlled environment was between five days and 30 days, with a mean stay of 14.52 days and a median stay of 9.00 days. A number of women (n=18) were in a controlled environment for all 30 days prior to their initial interview.⁸⁵ Because there was no means of estimating their ability to be abstinent outside of a controlled environment, these 18 women were excluded from the analyses for unadjusted use, adjusted use, and pre-post changes in days of use.

At the time of the six month interview, approximately half of the women (n=42 or 51.2%) had been in a controlled environment for at least a portion of the month prior to the interview. Most commonly, these women were in residential treatment (n=32 of the 42).⁸⁶ For those who were in a controlled environment during the 30 days prior to the follow-up interview, the number of days stayed ranged from 2 to 30, with a mean of 24.26 days and a median of 30.00 days. Many of the women who were in a controlled environment (primarily residential treatment) were there for all 30 days prior to the follow-up interview (n=25 of 42). Because there was no means of estimating their ability to be abstinent outside of a controlled environment, these women were also excluded from the analyses for unadjusted use, adjusted use, and pre-post changes.⁸⁷

Since women residing in a controlled environment presumably did not have the opportunity to use alcohol or drugs, the time they spent in the controlled environment was not representative of their typical pattern of use. The amount of alcohol and drugs women used during the time they were not in a controlled environment was taken as an indicator of their frequency of use. For women who were in a controlled environment for some portion of the 30 days prior to their initial or follow-up interviews, an estimate of their use was made based on the amount used while in the community. Specifically, the proportional amount used while not in a controlled environment was applied to a standard 30 day period to estimate the overall 30 day use. This estimated use was termed "adjusted" use.

Table B1 presents the mean days of use for alcohol and for the most commonly used drugs prior to the initial interview, both adjusted and unadjusted, for the women included in the analysis.

⁸⁴ N=82 for all information on controlled environment at the initial interview.

⁸⁵ In addition to the days spent in residential substance abuse treatment, 12 of the 18 women who were in a controlled environment for all 30 days prior to the initial interview had spent some of those 30 days in jail.

⁸⁶ N=82 for all information on controlled environment at the follow-up interview.

⁸⁷ There were 3 women who were in a controlled environment all 30 days prior to both interviews. As a result, a total of 40 women were excluded from the adjusted pre-post analyses.

Table B1: A Comparison of Adjusted and Unadjusted Mean Days of Drug Use Prior to the Initial Interview

Drug Used	Unadjusted Mean Days of Use	Adjusted Mean Days of Use
Alcohol	3.07	4.32
Alcohol to intoxication	1.86	2.66
Marijuana*	1.41	2.12
Cocaine*	3.49	5.01
Heroin	1.64	2.40
More than one substance per day*	3.37	4.70
Days of illegal drug use*	7.78	10.97
Days of no use*	16.80	7.80

N=42. Eighteen women at the initial interview and 25 women at the follow-up interview were in a controlled environment all 30 days prior to the interview (with 3 of these women in all 30 days prior to both interviews).

*N=41, with 1 woman missing data on number of days of use for cocaine, marijuana, more than one substance, illegal drug use, and days of no use.

As anticipated, the adjusted days of use for each substance were higher than the unadjusted days of use (and the total days completely alcohol and drug free was lower), reflecting women's level of use when they were not being closely monitored in a controlled environment.

Table B2 presents the mean days of use for alcohol and for the most commonly used drugs prior to the six month interview, both adjusted and unadjusted, for the women included in the analysis.

Table B2: A Comparison of Adjusted and Unadjusted Mean Days of Drug Use Prior to the Six Month Interview

Drug Used	Unadjusted Mean Days of Use	Adjusted Mean Days of Use
Alcohol	0.81	1.30
Alcohol to intoxication	0.52	0.79
Marijuana*	0.54	0.54
Cocaine*	0.07	0.79
Heroin	0.00	0.00
More than one substance per day*	0.46	0.72
Days of illegal drug use*	0.90	1.87
Days of no use*	19.05	14.39

N=42. Eighteen women at the initial interview and 25 women at the follow-up interview were in a controlled environment all 30 days prior to the interview (with 3 of these women in all 30 days prior to both interviews).

*N=41, with 1 woman missing data on number of days of use for cocaine, marijuana, more than one substance, illegal drug use, and days of no use.

At follow-up, the adjusted days of use for most substances were slightly higher than the unadjusted days of use (and the total days completely alcohol and drug free was somewhat lower). However, given the limited number of days of use at follow-up, the differences between adjusted and unadjusted use were relatively minimal.

Appendix C

Exploration of Pre-Post Results on the DDST-II

Appendix C:

Exploration of Pre-Post Results on the DDST-II

The PRFR program's Child and Family Case Manager asked women for permission to screen their young children for developmental concerns using the Denver Developmental Screening Test (DDST-II) (Frankenburg et al., 1992). The DDST-II is a revision of the earlier Denver Developmental Screening Test (DDST), which was first published by Frankenburg in 1967. It is a widely used developmental screening tool that assesses the achievement of developmental milestones among children ages 0 to 6 years. Using 125 observational and parent report items, the DDST-II provides a brief screening of a child's development in four domains: Personal-Social, Language, Fine Motor, and Gross Motor skills (Frankenburg et al., 1996). The scoring of each item is based upon the percentage of same-age children in the standardization sample that passed the item, with each scored as "Advanced", "Normal", "Caution", "Delayed", or "No Opportunity". Interpretation of the combined scored items yields an overall screening result or "Normal", "Suspect", or "Untestable".

A total of 19 children were screened using the DDST-II at the time their mothers were admitted to the program and again three months later. These children fell within the targeted age range for the DDST-II at the time of the intake screening, ranging in age from 27 days to 4.68 years, with a mean of 1.22 years and a median of 0.51 years (approximately six months).

At the time of their mother's admission to the program, a total of 11 of these children (57.9%) had an overall DDST-II result indicative of "Normal" developmental progress (i.e., they passed nearly all items accomplished by 75%-90% of same-age children). A total of seven children (36.8%) had "Suspect" results (i.e., they refused or failed two or more items accomplished by 75%-90% and/or one or more items accomplished by 90% of same-age children). One child (5.3%) was considered to be "Untestable" at the time the DDST-II was administered (i.e., they refused two or more items accomplished by 75%-90% and/or one or more items accomplished by 90% of same-age children).

Although the number of follow-up screenings is too small to conduct a valid and reliable analysis of pre-post changes on the DDST-II, an exploratory analysis of children's intake and three month screening results was conducted. This analysis indicates that at the time of the three month follow-up screening, 12 of the children (63.2%) had a DDST-II result indicative of "Normal" developmental progress, six children (31.6%) had "Suspect" results, and one child (5.3%) was considered to be "Untestable".

Case-specific pre-post changes in the DDST-II results for the small number of children who were administered the tool at both screening points suggests that a substantial proportion of the children (n=12 of the 19, or 63.2%) either had a Normal result at both the intake and follow-up, or had improved screening results from intake to follow-up. Specifically:

- Among the 11 children who had a Normal screening result at intake, eight also had a Normal screening result at the time of the three month follow-up.
- Among the eight children who had either a Suspect or Untestable screening result at intake, four had a Normal screening result at the time of the three month follow-up.

However, children's pre and post DDST-II results also indicate that a small number of the children (n=7 of the 19, or 36.8%) had results that were either Suspect or Untestable at both screening points, or had less positive results on the follow-up screening. Specifically:

- Among the eight children who had either a Suspect or Untestable screening result at intake, four also had a Suspect or Untestable screening result at follow-up.
- Among the 11 children who had a Normal screening result at intake, three had a Suspect or Untestable screening result at follow-up.

The results of the exploratory analysis suggest that approximately two-thirds of the children either maintained a Normal DDST-II result or had results that improved from intake to the three month follow-up screening. Approximately one-third of the children either maintained Suspect or Untestable results or exhibited a decline in their screening results. However, the small number (N=19) of children who were administered the DDST-II at both intake and three months later precludes a valid and reliable analysis of pre-post changes. As a result, caution is advised in interpreting the findings from this exploratory analysis.



1243 North 10th Street, Suite 200 Milwaukee, WI 53205-0243
(414) 224-0404 FAX (414) 224-0243 www.planningcouncil.org
Member of the National Association of Planning Councils