



# **CO-OCCURRING MENTAL HEALTH AND SUBSTANCE USE DISORDERS OF WOMEN IN PRISON: AN EVALUATION OF THE WESTCARE FOUNDATION'S DUAL DIAGNOSIS PROGRAM**



**Co-occurring Mental Health and Substance Use Disorders of Women in Prison: An Evaluation of the WestCare Foundation's Dual Diagnosis Program in Illinois**

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This evaluation was supported by Grant #16-DJ-BX-0083 awarded to the Illinois Criminal Justice Information Authority by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions contained within this document are those of the authors and do not necessarily represent the official position or policies of the Authority or the U.S. Department of Justice.

Suggested citation: Reichert, J., Gatens, A., Adams, S., Gleicher, L., Weisner, L., & Head, C. (2018). *Co-occurring mental health and substance use disorders of women in prison: An evaluation of the WestCare Foundation's Dual Diagnosis Program in Illinois*. Chicago, IL: Illinois Criminal Justice Information Authority.

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## Executive Summary

### Introduction

Co-occurring disorders (COD)—both substance use disorders (SUD) and mental health disorders (MHD)—affect many women incarcerated in prison. Incarcerated women are diagnosed with COD more often than their male counterparts (BJS, 2017). This is due in part to risk factors such as childhood sexual abuse, physical abuse, and domestic violence that occur more often to women offenders and make them more likely to be diagnosed COD in their lifetime. To address the needs of women in prison with COD, evidence-based programming underpinned by principles of trauma-informed and gender-responsive frameworks are needed.

Illinois Criminal Justice Information Authority (ICJIA) researchers conducted a process evaluation of the Dual Diagnosis treatment program operated by WestCare Foundation at Logan Correctional Center for women in Illinois. A process evaluation is intended to document how the program is currently implemented in relation to the original program design and promising or evidence-based practices. This report offers findings from that evaluation. Researchers specifically sought to learn how the program operated, about clients and their views on the program, and staff perceptions of the program. Specifically, the research team worked to answer the following research questions:

- How did the program operate?
- Who were the clients?
- What did the clients and staff think of the program?
- To what extent did the program reduce PTSD symptoms?
- To what extent did the program reduce aggression?

### Current Study

Administrative data and staff and client interviews were collected and analyzed to answer the core research questions listed above.

**Program operations.** The Dual Diagnosis program at Logan Correctional Center is a residential, mental health and substance abuse treatment program, housing up to 26 women in a highly structured environment separate from the general prison population. The program has been in operation since August 2015. IDOC initially contracted with Wells Center, Inc. to run the program until May 2017 when the WestCare Foundation (Illinois) was awarded the contract. The program funds three full-time employees, including a supervising counselor and two substance abuse treatment counselors.

Eligibility requirements consist of a diagnosis for both a substance use disorder and mental health disorder. Once officially accepted into the program, women are given multiple assessments to learn about their background, medical history, drug and alcohol use, family and school history, relationship history, psychiatric status, and employment history. Tests used include the Buss-Perry Aggression Questionnaire (AQ), the Posttraumatic Stress Disorder Checklist (PCL-5) and the Addiction Severity Index (ASI).

The program consists of three phases

1. **Pre-treatment orientation phase.** Staff get to know clients' individual needs, planning a course of action to address those needs, familiarizing clients with the program rules and expectations, and engaging the women in treatment.
2. **Main treatment phase.** This phase offers treatment services, medication compliance, and leisure activities.
3. **Pre-release phase.** This phase includes meetings with a substance abuse treatment counselor, the Illinois Department of Corrections counselor, and the field services representative to help them plan their reentry.

**Client demographics.** Twenty-four clients were interviewed, with an average age of 36 years old, 58 percent White and 30 percent Black; half had completed some high school and half had earned at least their diploma/GED; 83 percent had children; and 58 percent reported prior homelessness. Almost all (92 percent) had more than one diagnosed mental health disorder; of those, nearly all reported having anxiety or mood disorders (both 92 percent). Prior traumatic experiences were also common.

**Client and staff feedback.** Overall, clients thought the program helped them with their disorders. Two, however, reported participating in the program primarily to receive a reduction in their sentence. Clients expressed the importance of cognitive restructuring, problem-solving, and coping skills. Staff interviewed felt the program should be expanded to treat more clients. Currently the program's capacity is 26. Overall, staff were pleased with the work of the program despite limited resources.

**Therapeutic space.** Nearly all clients found the program space to be comfortable and safe. Clients thought the offices for individual counseling were sufficiently private, but one found it depressing because it is not decorated. Staff, however, expressed concerns about the lack of privacy and confidentiality during individual sessions with clients. Staff would prefer separate offices to hold individual sessions. Program staff also mentioned the treatment area does not have air conditioning, which impacts programming because it is uncomfortable and distracting during group and individual counseling sessions.

**Privacy among clients.** Clients reported the biggest issue with the program was fear their private information will be shared with others. One staff confirmed that clients were apprehensive to share in group settings for fear information would be repeated by other clients.

**Program and correctional staff.** Most clients found the counselors welcoming, open-minded, and willing to listen. One staff member stated that the program had "amazing staff," and highlighted the camaraderie between staff and clients. However, clients thought correctional officers were not respectful or helpful to their recovery. Clients felt correctional officers had the ability to undermine the work that was being done in the program and officers need training on CODs to understand the importance of the Dual Diagnosis program.

**Improvement in Posttraumatic Stress Disorder (PTSD).** Twenty-four clients completed a both pre- and post-test that measures PTSD symptoms and severity. Based on DSM-5 diagnostic criteria, before the program 16 women (67 percent) had a probable PTSD diagnosis;

after the program, 10 women or 42 percent had a probable PTSD diagnosis. Researchers could not determine, however, whether these improvements were due solely to the program. At the start of the program, the most common PTSD symptom was having strong negative feelings such as fear, horror, anger, guilt or shame (63 percent) followed by blaming themselves or others for stressful experience (58 percent). The average PTSD severity score before the program was 41.5 and after the program was 27.8. Based on a validated measure of PTSD, 63 percent responded to treatment and 50 percent had clinically meaningful improvement.

**Improvement in client aggression.** Twenty-two clients completed the aggression questionnaire; the average aggression score before the program was 95.4 and the average score after the program was 91.3. Physical aggression, hostility, and the total score declined, while verbal aggression and anger experienced a slight increase.

### **Implications for Policy and Practice**

It is recognized that security, limited resources for effective programming, and the prison environment itself can unique challenges to providing evidence-informed and evidence-based programs and practices. Common reasons for limited provision of treatment to prisoners include: budgetary constraints, space limitations, and limited number of counselors (CASA, 1998). However, based on what was learned from this study, the following are suggestions to improve the Dual Diagnosis program.

#### **Improve the program's physical space**

**Therapeutic space.** Interviews with program staff highlighted the need for changes in the physical space that therapies are provided within. Physical environments, including accessories, colors, furniture, lighting, sound, smell, texture, and thermal conditions, have been found to impact the effectiveness of therapy and can even discourage successful treatment of incarcerated individuals (Pressly & Heesacker, 2001; SAMHSA, 2013b). Although prisons often must retrofit their therapy space within existing prison walls, there are things that can be done to modify these spaces.

**Housing unit.** Some clients shared with researchers that there was a negative stigma attached to participating in the program. It was suggested that dual diagnosis should have its own house [building/dorm] because it would lessen the stigma from other non-dual diagnosis participants. Specially trained correctional officers could be assigned to the housing unit. This could also lessen the concerns expressed by clients that the correctional officers are not respectful or helpful to the clients. A housing unit could also somewhat address concerns about privacy, so there are less opportunities to share what happens in therapy with other female inmates housed the general population.

**Train correctional officers.** Treatment staff reported a need for correctional officer training in both SUD, MHD, and COD as a means of creating a culture that supports therapeutic efforts while maintaining security. Staff understood that safety in the prison setting was vital, but thought correctional officers could work to improve the overall environment that clients

experienced. Further, collaboration and cooperation between treatment staff and correctional staff should be encouraged.

### **Enhance program components**

*Aftercare.* Program staff confirmed the lack of a formalized aftercare portion of the Dual Diagnosis program. This is problematic as aftercare is important in increasing the chances of maintaining improvements that were achieved during treatment. Professionals agree that continuity of care and a high level of support are essential for reentering women with COD (Johnson, et al., 2015).

*Program make-up hours.* The biggest issue mentioned by the clients was the difficulty in making up missed group hours. They may miss group for a number of non-treatment-related reasons such as illness. These restrictions create a need for more hours and days for make-up groups. Availability of make-up hours is important to meet the program completion requirements and to ensure that participating women benefit from the therapeutic intervention.

**Conduct additional research.** Currently, the program measures PTSD and aggression scores over time to document changes in client symptomology pre- and post-treatment. Program staff should also consider collecting similar from those women who are deemed eligible for the program but are currently waiting a program slot. If possible, future research should employ a randomized control trial for client selection, as well as testing new or current aspects of the program. Such a process could shine a light onto what extent the program and program components work for this population.

## Section 1: Introduction

Dual diagnosis or co-occurring disorder (COD) is a diagnosis of a co-existing mental health disorder (MHD) and substance use disorder (SUD) (Substance Abuse and Mental Health Services Administration [SAMHSA], 2016). While there are diagnostic criteria for both disorders separately, to date, there is no standardized definition of COD (American Psychiatric Association, 2013). According to results from the 2016 National Survey on Drug Use and Health, 8.2 million adults had a diagnosis of a mental illness and a substance use disorder (SAMHSA, 2017b). Among those 8.2 million individuals diagnosed with a COD, about 48 percent received some form of treatment but only an estimated 6.9 percent received mental health *and* substance use treatment (SAMHSA, 2017b). Compared to the general population, individuals with a COD are at an increased risk for incarceration, and roughly two-thirds of incarcerated women have a COD (James & Glaze, 2006; Sacks, 2004).

The connection between SUD and MHD has been well established. Those with a MHD have an increased risk of diagnosis of a SUD, compared to the general population (Drake, Muesser, & Brunette, 2007; Kessler, 1997; Regier, 1990; Teesson, Hall, Lynskey, & Degenhardt, 2000). In 2016, individuals with a MHD were much more likely to also be diagnosed with a SUD than those without a MHD. Specifically, 18.5 percent of those with a MHD also had a SUD, while only 5.4 percent of those without a MHD had a SUD (SAMHSA, 2017b). CODs may arise because abuse of drugs can result in symptoms of mental illnesses, those with a mental illness may use alcohol or drugs to self-medicate, and SUDs and MHDs are caused by overlapping factors (National Institute on Drug Abuse [NIDA], 2010).

Despite frequent comorbidity of SUDs and MHDs, treatment delivery and funding remain compartmentalized (McGovern, Lambert-Harris, Gotham, Claris, & Kim, 2014). The complexity of those issues indicates a need for treatment that is integrated—addressing both issues together (Horsfall, Clearly, Hunt & Walter, 2009). Treatment plans for inmates are most effective when they are comprehensive and collectively handle all diagnoses, and medication and behavioral therapies can help to concurrently treat SUDs and MHDs (NIDA, 2010). Unfortunately, screening processes in the justice system often do not adequately identify those with a COD (NIDA, 2010; SAMHSA, 2015b), making it more difficult to link individuals to the appropriate care and treatment.

Illinois Criminal Justice Information Authority (ICJIA) researchers evaluated the Dual Diagnosis treatment program operated by WestCare Foundation (Illinois) at Logan Correctional Center for women in Illinois, which is funded through the agency's federal Residential Substance Abuse Treatment funds. The program focuses specifically on women identified as having COD. This publication offers findings from the process evaluation of the Dual Diagnosis treatment program. Researchers sought to learn how the program operated, about the clients and their views on the program, and staff views of the program.

## **Section 2: Literature Review**

### **Co-occurring Disorders in Correctional Facilities**

Mental health disorders are disproportionately higher in the criminal justice system than in the general public. According to the Bureau of Justice Statistics (BJS), 37 percent of federal prisoners and 44 percent of jail detainees had been diagnosed with a mental health disorder in the past (BJS, 2016). Individuals with mental health disorders and convictions for drug offenses experience an increased risk of recidivism when compared to general criminal justice populations (Baillargeon, Binswanger, Penn, Williams, & Murray, 2009). A study of nearly 300,000 U.S. prisoners found over 67 percent of prisoners incarcerated for drug offenses were rearrested within three years of release (Langan & Levin, 2002). Furthermore, for many, the criminal justice system is the primary administrator of mental, medical, and behavioral health care (Balyakina, et al., 2013). Given the increased likelihood of those with mental health disorder, substance use, or COD to encounter the justice system (Balyakina, et al., 2013), there is a clear need for effective services within prisons and jails to address COD to reduce recidivism and improve overall well-being of those who are justice-involved.

Women have high rates of COD; according to the Bureau of Justice Statistics, 75 percent of women in state prisons had COD (James & Glaze, 2006). A study of women offenders at nine county jails in four regions (Idaho, Colorado, South Carolina, and Maryland/Virginia) found 20 percent met diagnostic criterion for COD (Nowotny, Belknap, Lynch, & DeHart, 2014). In a national study by the National Center on Addiction and Substance Abuse at Columbia University (CASA) that analyzed data from 11 federal sources and reviewed more than 650 articles and other publications, women were found to be almost two times more likely to experience COD than men, 41 percent versus 23 percent, respectively (The National Center on Addiction and Substance Abuse at Columbia University, 2010). In a Bureau of Justice Statistics survey, incarcerated women that met the threshold of serious psychiatric disorders within the last 30 days made up 20 percent of the prison population and 32 percent of the jail population (BJS, 2017). This is higher than their male counterparts with those disorders, who make up 14 percent and 26 percent in prisons and jails respectively (BJS, 2017).

### **Profile of Justice-involved Women**

Women generally face different pathways to the criminal justice system than men oftentimes with more dire outcomes. For example, although COD is present for both women and men, women with COD are at increased risk for arrest, incarceration, and recidivism (Covington & Bloom, 2003). Furthermore, correctional records show that incarcerated women with COD are four times more likely to be punished for a minor infraction than women without disorders (Peters, Wexler, & Lurigio, 2015). Incarcerated women also have worse outcomes and are less likely to be linked to care in the community and in prison or jail than incarcerated men (Nowontny, Belknap, Lynch, & DeHart, 2014). An Illinois study found 80 percent of women in the Illinois Department of Corrections (IDOC) needed treatment for SUD, but only 16 percent received treatment (White, 2012). One possible reason for these disparities is that gender-specific experiences create pathways to justice involvement, particularly for women with COD. For example, women are more likely than men to be incarcerated for charges related to substance use disorder and survival crimes (Covington, 2006).

Though women are rearrested at lower rates than their male counterparts, two-thirds are rearrested within five years according to recidivism data of 30 states from 2005- 2010 (Durose, Cooper, & Snyder, 2014). If engaging in continued COD treatment in community, women often must disengage from care if returning to prison or jail. This can ultimately exacerbate COD symptoms and increase their vulnerability to rearrests long-term. To avoid further incarceration risk, targeting women's pathways to jail such as substance use, trauma, and financial stability must be addressed at all stages of justice involvement (Bloom, Owen, & Covington, 2003).

**Prevalence of trauma among women offenders.** The DSM-5 defines trauma as an emotional response to a traumatic event (American Psychiatric Association, 2018). Not all the events can lead to trauma and not all trauma meets the diagnostic criterion for PTSD outlined by the DSM-5 (American Psychiatric Association, 2013). That said, many women in the criminal justice system have a history of trauma. Women offenders nationally are seven times more likely than their male counterparts to experience sexual abuse and four times more likely to experience physical abuse than men offenders (The National Center on Addiction and Substance Abuse at Columbia University, 2010). A study of incarcerated women in Cook County found 75 percent were diagnosed with PTSD (Salina, Lesondak, Razzano, & Weilbaeher, 2007).

Of what is known about incarcerated women with trauma backgrounds, women experience high rates of PTSD. A national survey of women in prisons showed that 53 percent of participants met lifetime criteria for PTSD (Lynch, DeHart, Belknap, & Green, 2013). Forty-three percent of the sample met criteria for lifetime serious mental illness and this group was more likely to have experienced trauma, have substance use disorder, and be repeat offenders (Lynch, et al., 2013) Furthermore, 82 percent of this same sample met criteria for lifetime substance use disorder (Lynch, et al., 2013). Comparable results are seen in a representative sample of women prisoners in Illinois; 83 percent of respondents reported being bothered by symptoms of PTSD in the past month (Reichert & Bostwick, 2010). Additionally, respondents were more likely to experience PTSD if they had experienced trauma (physical and sexual abuse) as a child or experienced sexual violence as an adult (Reichert & Bostwick, 2010).

**Substance use as a risk factor for incarceration.** As noted, substance use is one of the most prevalent pathways of incarceration for women offenders (Tripodi, Bledsoe, Kim, & Bender, 2011; Chesney-Lind, 1998; Covington, 1998). The overall trend in the population of women offenders nationally and on the state level may be influenced by drug legislation. The growth in incarcerated women since the 1980's has been linked to increased substance use and tougher drug related sentencing (Deshenes, Owen, & Crow, 2007). Women offenders with substance use disorders and mental health disorders are at risk for arrest, incarceration, and recidivism (Covington & Bloom, 2003). Rates for the number of women incarcerated peaked between 2004 and 2005 and have fallen since (Escobar & Olson, 2012).

In Illinois, women make up a smaller proportion of incarcerated population. Though the national rate of incarceration for women is 58 per 100,000, in Illinois the rate is 44 per 100,000 (The Sentencing Project, 2012). Drug-related offenses are still a leading driver of women's incarceration rates in Illinois. Felony possession of a controlled substance was the most common crime for which women were incarcerated in 2012, and rates of drug law violation were similar between men and women (28 percent and 25 percent) (Escobar & Olson, 2012).

Disproportionate rates of trauma and mental health disorders may contribute to substance misuse among women offenders. Women offenders are more likely to cite substance use to cope with past trauma (Fedock, 2017; Sonne, Back, Zunigam Randall, & Brad, 2003).

Overall, literature on women offenders reveals they are typically:

- Disproportionately women of color.
- In their early twenties to mid-thirties.
- More likely to convicted of drug-related offenses.
- Survivors of trauma.
- Related to someone in the criminal justice system.
- Dealing with significant medical, mental health, and substance use-related issues.
- Limited in work and educational histories (Covington, 2007; Bloom, Owen, & Covington, 2003).

When designing and assessing COD programs in corrections, these gender differences must be considered.

### **Treatment Practices**

**Gender responsiveness.** Gender responsive policies, practices, and training reflect an understanding of the lives of women and girls and respond to their strengths and challenges (Covington & Bloom, 2008). Gender responsive programming can integrate topics that are of special interest to women or topics such as parenting and job-readiness that are universally important but may affect women differently than men (White, 2012). For example, though both women and men can be parents, most incarcerated women are the primary caregivers for their children and can experience more shame related to not fulfilling societal ideals of motherhood (Screening and Assessment of Co-Occurring Disorders in the Justice System, 2015). One set of surveys reported 77 percent of women in state prison and 83 percent of women in federal prison identified as the primary caregivers to their children prior to incarceration (CASA, 2010). A meta-analysis of gender-responsive versus gender-neutral programs showed 22 to 35 percent less recidivism by women offenders in correctional programs that considered gender (Gobeil, Blanchette, & Stewart, 2016). “Gender-neutral program” refers to treatment that does not directly acknowledge and address the different treatment needs of women and men offenders.

Gender responsive policies can help develop more effective treatment planning. For example, a CASA analysis of the 2004 Survey of Inmates in Federal Corrections showed women were more likely to experience risk factors related to substance use vulnerability such as homelessness, having a parent or guardian with substance use issues, or experiences of abuse (CASA, 2010). Understanding these risk factors can help reentry professionals find relevant services in the community to ease the transition. Additionally, being gender responsive can be considered a necessary component to developing trauma-informed practices in a prison setting.

**Trauma-informed care.** In general, trauma-informed programs endeavor to correctly identify histories of trauma in individuals, and create structures within care settings that acknowledge the impact of trauma in people’s lives (Harris & Fallot, 2001; Hodes, 2006; Miller

& Najavits, 2012). In the case of incarceration, trauma-informed care recognizes the way prisons and jails can exaggerate trauma symptoms (Kubiak & Rose, 2007). Everyday prison practices, such as the use of restraints or searches, can be especially triggering and create the possibility of re-traumatization among women (Covington, 2007). SAMSHA (2014) outlines six key principles for the development of trauma-informed programs:

1. Safety
2. Trustworthiness and transparency
3. Peer support
4. Collaboration and mutuality
5. Empowerment, voice, and choice
6. Cultural, historical, and gender issues.

### **Treatment Components and Practices**

Although prisons employ differing models to treat COD, there are some practices that have resulted in recidivism reduction. These include the use of group therapy, cognitive behavioral therapy, and comprehensive and integrated treatment.

**Group treatment.** Treating COD in groups has been effective in changing social attitudes through peer support and is cost effective (Horsfall et al., 2009). In addition, research has found group therapy is the most effective first-line intervention for COD (Drake, Muesser, & Brunette, 2007). Groups can be held easily in residential settings, such as prisons (Najavits, 2009). Following the same agenda for every group session provides structure for both participants and administrators. Groups can help participants learn to relate to other people, as well as look at their own behavior in relation to other people with similar experiences (Covington & Bloom, 2006). Women-only groups offer space for women offenders to address their substance use and mental health disorders in relation to their shared experiences, such as physical/sexual abuse and domestic violence (Covington & Bloom, 2006). However, women may be generally more likely engaged in group therapy because of gender norms and societal expectations which assert women benefit more from a relational experience (Covington & Bloom, 2006).

**Cognitive behavioral therapy.** CBT is a form of structured talk therapy administered by a mental health counselor. Unlike other forms of talk therapy, clients are expected to attend a certain number of sessions. A guiding principle of CBT is that thoughts that drive feelings can be changed to ultimately alter emotional reactions (Covington & Bloom, 2006). A meta-analysis of 32 programs for justice-involved adults showed that there was a positive effect when CBT was used for moderate and high-risk adults (Aos & Drake, 2013). Crimesolutions.gov, a National Institute of Justice resource on what works in criminal justice, designated cognitive behavioral therapy (CBT) as a promising practice. CBT has reduced recidivism in 71 percent of corrections and reentry programs, 63 percent of substance use disorder programs, and 79 percent of victims' and victimization service programs (Feucht & Holt, 2016). In a study of a COD program for women in prison that used CBT, 53 percent of women who met criteria for PTSD at intake no longer met criteria for PTSD six months post treatment (Zlotnick et al., 2009). CBT may be a more cost-effective strategy to reduce recidivism than other mental health-related interventions.

**Comprehensive and integrated treatment.** Integrated treatment has been shown to be most effective in addressing COD among adults (SAMSHA, 2016). The program which is the focus of this evaluation, uses an integrated treatment model. SAMHSA defines care integration as the systemic coordination of general and behavioral health care (SAMHSA, n.d.). Research has shown that structured treatment that integrates both behavioral and mental health services is the most helpful for addressing COD (Horsfall et al., 2009). Though the primary goal of the criminal justice system is public safety and recidivism prevention, prioritizing comprehensive primary and behavioral health services is a vital component of achieving this goal (McDonnel, Brookes, & Lurigio, 2014). Integrated treatment within the justice setting and during reentry can reduce recidivism by addressing chronic conditions that can increase vulnerability to re-arrest (McDonnel, et al., 2014; Lurigio, 2000; Messina et al., 2004). While incarcerated, offenders have access to few COD programs with integrated treatment (Key Issues in Screening and Assessment of Co-occurring Disorders in the Justice System, 2016). During reentry, many offenders will be eligible for Medicaid coverage under the Affordable Care Act (McDonnel et al., 2014). Continuing care integration post release requires discharge planning that starts well before the release date (Guideline for Successful Transition of People with Mental or Substance Use Disorders from Jail to Prison: Implementation Guide, 2017).

### **Reentry Planning and Aftercare for Individuals with COD**

Reentry poses two major barriers to care continuation for women with COD—case planning and high risk for recidivism. Intentional and effective aftercare is needed to link offenders to treatment and aid in recovery. Planning for reentry should ideally start early, long before release (SAMHSA, 2017a). As a best practice, part of reentry protocols should prioritize early and consistent communication with community-based agencies (SAMHSA, 2017a).

Aftercare, or continued treatment following release from prison, has been associated with greater success in the community (Butzin, Martin, & Inciardi, 2005; Prendergast, Hall, Wexler, Menick & Cao, 2004; Sacks, Chaple, Sacks, McKendrick & Cleland, 2012). A study of men at Sheridan Correctional Center in Illinois found those who completed aftercare had a lower likelihood of returning to prison compared to a control group (Olson, Rozhon, & Powers, 2009). In a 2007 meta-analysis, an association was found between failure to complete community treatment and increased recidivism (McMurrin & Theodosi, 2007).

### **Summary of the Literature**

Women have high rates of COD which puts them at greater risk for arrest, incarceration, and recidivism (Covington & Bloom, 2003). In addition, women are more likely than their male counterparts to experience sexual abuse, physical abuse, and PTSD (The National Center on Addiction and Substance Abuse at Columbia University, 2010; Salina, Lesondak, Razzano, & Weilbaecher, 2007). Prisons can use group therapy, cognitive behavioral therapy, and comprehensive and integrated treatment to treat women with COD. When designing and assessing COD programs in corrections, gender differences should be considered using gender-responsive and trauma-informed care for more effective treatment of CPD. Reentry and aftercare

planning should begin long before release to link incarcerated women to treatment and aid in recovery (SAMHSA, 2017a).

### Section 3: Methodology

This evaluation of the Dual Diagnosis Program focused on WestCare Foundation's prison-based Dual Diagnosis Program, which began in May 2017. The evaluation period ran from May 2017 to May 2018.

Researchers sought to answer the following research questions:

- How did the program operate?
- Who were the clients?
- To what extent did the program reduce aggression?
- To what extent did the program reduce PTSD symptoms?
- What did the clients and staff think of the program?

The research methods involved a review of administrative program records and interviews with staff and program clients. All data collection components of the evaluation were approved by the ICJIA's Institutional Review Board.

#### Interviews with Program Clients

Researchers attempted to interview the 26 Dual Diagnosis Program participants at IDOC Logan Correctional Center. Two women researchers at ICJIA conducted structured, private, one-on-one interviews lasting 30 to 60 minutes at the correctional facility. The final sample size was 24, or 92 percent, of the total sample. Participation was voluntary and two women declined to be interviewed. Written consent was received by all research subjects.

The structure of the survey instrument was designed to obtain a wealth of information about the research subject. Researchers selected the questions and designed the instrument utilizing prior validated research scales when appropriate. The questions were chosen to gather information about the women, focusing on different types of victimization experienced and views of the dual diagnosis program. Questions on mental health and prior help-seeking also were asked.

The interview included 54 questions in five sections:

- Background and demographics (15 questions).
- Mental health (3 questions).
- Traumatic events (24 questions).
- Prior help seeking (3 questions).
- Dual diagnosis program (9 questions).

**Traumatic Lift Events Checklist.** During the interviews, researchers administered the Life Events Checklist for DSM-5 (LEC-5). LEC-5 is a self-report measure of exposure to 16 potentially traumatic events. There is no formal scoring; however, respondents could indicate varying levels of exposure. Response choices included:

- It happened to you personally.
- You witnessed it happen to someone else.
- You learned about it happening to a close family member or close friend.

- You were exposed to it as part of your job (for example, paramedic, police, military, or other first responder).
- You're not sure if it fits.
- It doesn't apply to you (Gray, Litz, Hsu, & Lombardo, 2004; Weathers, et al., 2013).

Participants were told that if they felt any emotional stress or discomfort with the personal nature of the questions, they could take a break or stop the interview at any time. All participants were informed that they could be referred to a WestCare mental health professional after the interview.

Researchers conducting the interviews entered data from the original hard copies of the interview notes using Qualtrics, where data are securely stored. Closed-ended responses were exported and analyzed using SPSS. Open-ended responses were exported and analyzed using the qualitative analysis software, QSR NVivo 9. The research analysts who conducted the interviews individually coded an initial sample of two responses (one interview conducted by each of the analysts). Both analysts then came together to arrive at a consensus for the main themes (nodes) to employ in coding the entire sample of qualitative responses. Researchers proceeded to code the complete sample of responses using these agreed upon nodes, as well as adding new nodes as needed.

### **Interviews with Program Staff**

WestCare Foundation (Illinois) staff were interviewed by a researcher on the operations and the opinions about the Dual Diagnosis Program. Consent forms were signed by interviewees. At the time of the interview, staff had been in their positions between six and 24 months and were college graduates. All interviews were conducted by phone and the handwritten and typed notes were analyzed.

### **Pre- and Post-Test Measures**

**Buss-Perry Aggression Questionnaire.** WestCare Foundation staff administered the Buss-Perry Aggression Questionnaire (AQ) to clients as a pre- and post-test. Published in 1992, AQ is the gold standard for the measurement of aggression and has been validated extensively (Buss & Perry, 1992). The self-administered questionnaire has 29 items with responses on a 7-point Likert scale (1= extremely uncharacteristic of me, 7= extremely characteristic of me). Questionnaire measures four domains: anger, hostility, physical aggression and verbal aggression. WestCare Foundation staff shared a database of client responses from May 2017 to May 2018 with ICJIA researchers to analyze.

**Posttraumatic Stress Disorder Checklist.** WestCare Foundation staff administered the Posttraumatic Stress Disorder Checklist (PCL-5) to clients as a pre- and post-test (Weathers, et al, 2013). The PCL-5 has a variety of purposes, including: monitoring symptom change during and after treatment; screening individuals for PTSD; and making a *provisional* PTSD diagnosis. The PCL-5 is a 20-item self-report measure that assesses the DSM-5 symptoms of PTSD (American Psychiatric Association, 2013). A PCL-5 cut-point score of 33 appears to be a reasonable value to propose as having probable PTSD. The term “probable” is used because only

clinicians, not researchers, are able to make diagnoses. WestCare shared their database of responses from clients collected from May 2017 to May 2018 with ICJIA researchers. A total of 24 clients had matched pre- and post-tests completed, which were analyzed for this report.

### **Study Limitations**

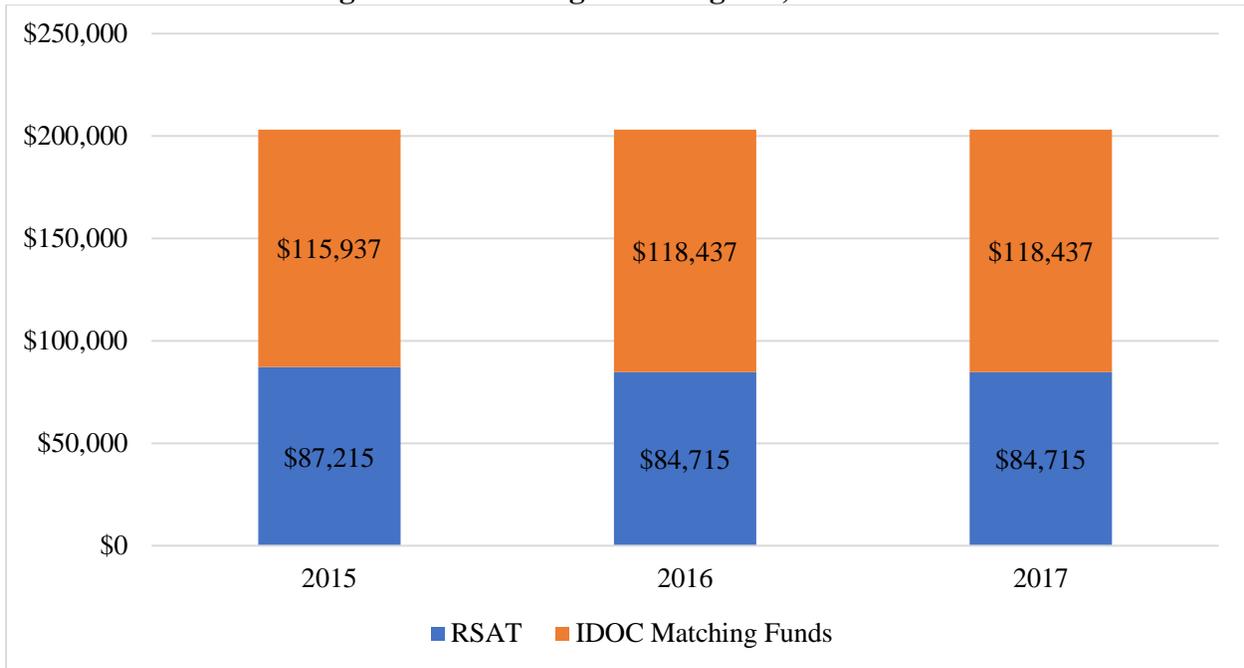
One limitation of the study is the reliance on self-reported data of the program staff and clients. This is a limitation as subjects may be biased or untruthful, and forget or omit information. Researchers were limited to information collected by WestCare Foundation staff. Due to the small sample sizes, some changes may be the result of chance rather than being attributable to participation in the program. Changes in pre- and post-test measures of PTSD and aggression cannot be directly or solely attributed to the treatment provided to clients in the program because changes in symptoms, attitudes, and beliefs may diminish over time without treatment.

### Section 4: Dual Diagnosis Program Description

The Dual Diagnosis Program at Logan Correctional Center is a residential mental health and substance abuse treatment program housing up to 26 women in a highly structured environment separate from the general prison population. The program has been in operation since August 2015. WestCare Foundation (Illinois) was awarded a contract to run the program in May 2017.

ICJIA awards and administers federal Residential Substance Use Treatment (RSAT) grant funding for the program. *Figure 1* depicts federal RSAT grants to IDOC per year.

**Figure 1**  
**Funding of the Dual Diagnosis Program, FFY 2015- 2017**



Source: ICJIA Federal and State Grants Unit

The program funds three full-time employees, including a supervising counselor and two substance abuse treatment counselors. The two substance abuse counselors have caseloads of 11 women, while the supervising counselor has a caseload of four women. Treatment providers receive training from both IDOC and WestCare on topics such as mental health issues and substance use disorders.

## **Program Referral and Acceptance**

Individuals enter the Dual Diagnosis Program in two ways. Inmates may make a formal, personal request for treatment to the program supervisor. Others may attend a weekly orientation session. Once they have made a formal request or participated in orientation, they are placed on a waiting list for an interview with program staff.

Others may receive a referral from the facility's substance abuse program after detection of a mental illness, a referral from the court, or a referral from IDOC. Staff try to place clients into the program at six months prior to the end date of the prison sentences.

Interviews with potential program clients are conducted with those on the waiting list to determine eligibility for the program. Eligibility requirements consist of a diagnosis for both a substance use disorder and mental health disorder. Those with only a substance use disorder are referred to the WestCare treatment program in the facility that focuses solely on substance use disorders. Women who are eligible for the program are added to a "move on" list that identifies they have met criteria and can be moved over to the program when a bed becomes available.

Once they are accepted into the program, participants are required to sign an admission agreement, which includes program expectations and responsibilities while they are living in the specialized unit. At that time, women are given multiple assessments to gather background information, medical histories, histories of drug and alcohol use, family and school histories, relationship histories, psychiatric status, and employment histories. Tests used include the Buss-Perry Aggression Questionnaire (AQ), the Posttraumatic Stress Disorder Checklist (PCL-5) and the Addiction Severity Index (ASI). According to staff, this initial assessment lasts from 30 minutes to 2.5 hours.

## **Therapeutic Program Model**

The Dual Diagnosis Program consists of three phases, including pre-treatment, main treatment, and pre-release treatment. The treatment program model is trauma-informed and includes trauma targeted curriculum.

**Pre-treatment orientation phase.** This phase lasts about three months and features staff getting to know clients' individual needs, planning a course of action to address those needs, familiarizing clients with the program rules and expectations, and engaging the women in treatment. Clients in the pre-treatment phase are paired with a "big sister" to help them understand the ins and outs of the program. Big sisters are clients that have been in the program over 90 days and have demonstrated their ability to do well and lead by example.

**Main treatment phase.** This phase lasts about two months, reinforces what was learned in the orientation phase and offers treatment services, medication compliance, and leisure activities. This phase provides women with information necessary for maintaining a self-supporting, crime and drug-free life upon release.

**Pre-release phase.** This phase lasts about one month before release and prepares clients for reintegration into the community. This phase includes meetings with a substance abuse treatment counselor, the Illinois Department of Corrections counselor, and the field services representative to help them plan their reentry. Clients are put into contact with community-based treatment providers, the Placement Resource Unit, and parole.

During the main treatment phase, women participate in a treatment model incorporating cognitive behavioral therapy (CBT). CBT assumes psychological problems result from unhelpful ways of thinking and learned patterns of unhelpful behavior. To treat psychological issues, CBT focuses on changing thinking patterns (American Psychological Association, n.d.). According to staff, Dual Diagnosis Program interventions are intended to explore, examine, and challenge the participants' thoughts and attitudes that precede their actions. The treatment focuses on four interventions:

- **Cognitive restructuring** aims to determine how thoughts, beliefs, and attitudes contribute to criminal behavior and how individuals can alter anti-social thinking and behaviors.
- **Cognitive skill development** addresses cognitive deficits and assist in the development of thinking skills used to cope with life situations.
- **Life skill enhancement** addresses life skills for participants with limited employment history and seeks to increase self-sufficiency and independence.
- **Behavioral intervention** uses reinforcement to encourage the effectiveness of the substance abuse treatment program. The program also uses screening, individualized treatment planning, drug education, counseling, recreation times, drug testing, medication monitoring, and pre-release planning to encourage successful completion of the program.

To make the changes outlined in the therapeutic model, clients participate in group therapy from 8:00 a.m. to 11:00 a.m. Monday through Friday. Participants do not have a formal schedule for the afternoon, but are able to use that time to reach out to staff, attend individual sessions, make up a group session, attend school, or go to work. Make-up group sessions are offered once a week for women that have not reached their required 15 hours of group therapy for the week. Clients seeking more support are welcome to attend additional group sessions. Friday afternoons also offer a recreational group activity for program participants. This usually involves watching a film that ties together the theme of the week or a game day. This recreational time is intended to help participants improve emotional and physical well-being, develop prosocial attitudes/skills, gain prosocial interests, and adjust to new people and surroundings. The program uses various curriculums and treatment models over the course of the six-month program with all the women in the program. They are described below.

**A Woman's Way through the Twelve Steps** is a gender-specific, 13-session curriculum that incorporates experiential activities and discussions around the themes of the 12 steps. The curriculum focuses on helping women recover from substance use disorders and other addictive behaviors (Covington, n.d.). While this specific program has not been evaluated, 12-step programs have been found to increase substance abstinence in participants at both 6- and 12-month follow ups (SAMHSA, 2013d).

**Connections: Shame Resilience Curriculum** helps clients understand that shame is a universal experience. The 12-session curriculum discusses defining shame, practicing empathy, exploring triggers, practicing clinical awareness, reaching out to others, and embracing change through exercises, handouts, and reading assignments (Brown, 2009). A study done on the Connections program with a small sample of Hispanic women in residential substance abuse treatment found statistically significant differences in general health, depressive symptoms, internalized shame, self-conscious affect, and shame resilience between pre- and post-tests (Hernandez & Mendoza, 2011).

**Co-Occurring Disorders Series** helps clients create a long-term recovery plan while emphasizing self-assessment and taking an active role in their own recovery (Hazeldon Betty Ford Foundation, n.d.). No studies have specifically examined this series in research, so it is unclear how effective this program is in treating those with a dual diagnosis. The program uses supplemental videos shown in groups.

**Helping Women Recover** is a 17-session, gender-specific program that addresses concerns and issues that women with substance use disorders face in correctional settings. The program focuses on psychological development and trauma. Topics covered include self-esteem, sexism, support systems, mothering, and self-soothing (SAMHSA, 2015b). Research shows Helping Women Recover is effective in reducing drug use and recidivism rates (SAMHSA, 2010).

**Living in Balance** is a curriculum with a basis in cognitive-behavioral, experiential, and Twelve Step approaches to help clients in recovery (Hoffman, Landru, & Caudill, 2015). It is evidence-based and effective at reducing drug and alcohol use. Living in Balance is used by the Dual Diagnosis Program for individual sessions and/or make-up group sessions.

**Managing Co-Occurring Disorders** uses CBT and interactive journaling to assist in the treatment of co-occurring disorders (The Change Companies, n.d.). Research shows interactive journaling is effective in reducing recidivism rates in both substance dependent individuals incarcerated for a substance offense and first-time DUI offenders (SAMHSA, 2013a). Furthermore, studies have found CBT useful for developing coping skills in those with co-occurring disorders (SAMHSA, 2013c).

**The Matrix Model Intensive Outpatient Treatment Program** is curriculum-based utilizing individual therapy, early recovery, relapse prevention, family education, and social support to treat substance use disorders. The model incorporates cognitive behavioral therapy, motivational enhancement, individual supportive/ expressive psychotherapy and psychoeducation, twelve-step programming, group therapy, and social support (SAMHSA, 2017c). Several studies have demonstrated that participants treated using the Matrix Model show statistically significant reductions in drug and alcohol use, improvements in psychological indicators, and reduced risky sexual behaviors associated with HIV transmission (Huber et al., Rawson et al., 1995, Rawson et al., 2002, Rawson et al., 2004).

**Residential Drug Abuse Program** is a gender-specific model that emphasizes accepting responsibility and acquiring the necessary skills for making positive life changes (The Change

Companies, n.d.). Like the Managing Co-Occurring Disorders series, this program utilizes both CBT and interactive journaling, both of which have been found effective in reducing recidivism rates and increasing coping skills.

**Seeking Safety** is considered an evidence-based program and is designed to treat individuals with substance use disorders and PTSD (Najavitis, 2009). In a meta-analysis of 12 research studies, Seeking Safety was found to be more effective at decreasing PTSD symptoms compared to the absence of or alternative treatment programs (Lenz, Henesy, & Callendar, 2016).

### **Aftercare**

The Dual Diagnosis Program does not contain a true aftercare component. Clients are set up with an assessment appointment at a treatment facility near their residence after release from prison; however, WestCare does not follow up on whether the women attend these assessments and continue to receive treatment.

## **Section 5: Process Evaluation**

### **Client Demographics**

Twenty-six clients were participating in the Dual Diagnosis Program at the time research interviews were conducted. Of those, 24 agreed to be interviewed for the study. At the time of the interviews, the 24 program clients ranged in age from 20 to 57 years old, with an average age of 36 years old.

One quarter of the sample identified as Spanish/Hispanic/Latino. Fifty-eight percent of the sample reported they were White, about 30 percent reported they were Black, and 12 percent reported “Other” or declined to answer the question. All were born in the United States, with a majority indicating they were born in Illinois (79.2 percent). Half of the sample had completed some high school or less, and half had earned a high school diploma/GED or completed further education.

At the time of the interview, 11 participants had never been married and eight were divorced; the remaining clients were either married or widowed. Fifty-four percent of those interviewed reported having an intimate partner/significant other/spouse, the rest indicated they did not. Twenty interviewees reported they have children (83 percent). Of the 20 individuals with children, six reported having at least partial custody of their children when not incarcerated. Six respondents had adult children. Eight individuals said they did not have custody of their children prior to their incarceration.

Over half of the participants (58 percent) reported being homeless at some point in their lives. Fourteen interviewees responded that their health was either “excellent” or “good”, while 10 said it was “average” or “below average.” One-fourth of respondents indicated they had no current medical conditions or disabilities. Asthma and high blood pressure were the most commonly reported among those who said they had a current medical condition or disability

### **Substance Use and Mental Health Disorders**

Half of respondents said their drug problem was “extremely” or “considerably” serious at the time of the interview; the other half indicated theirs to be less serious (moderately, slightly, or not at all). However, over 80 percent of interviewees reported it was extremely important for them to get drug treatment at the time of the interview. Twenty-one of the respondents had been in at least one drug treatment program prior to the Dual Diagnosis Program.

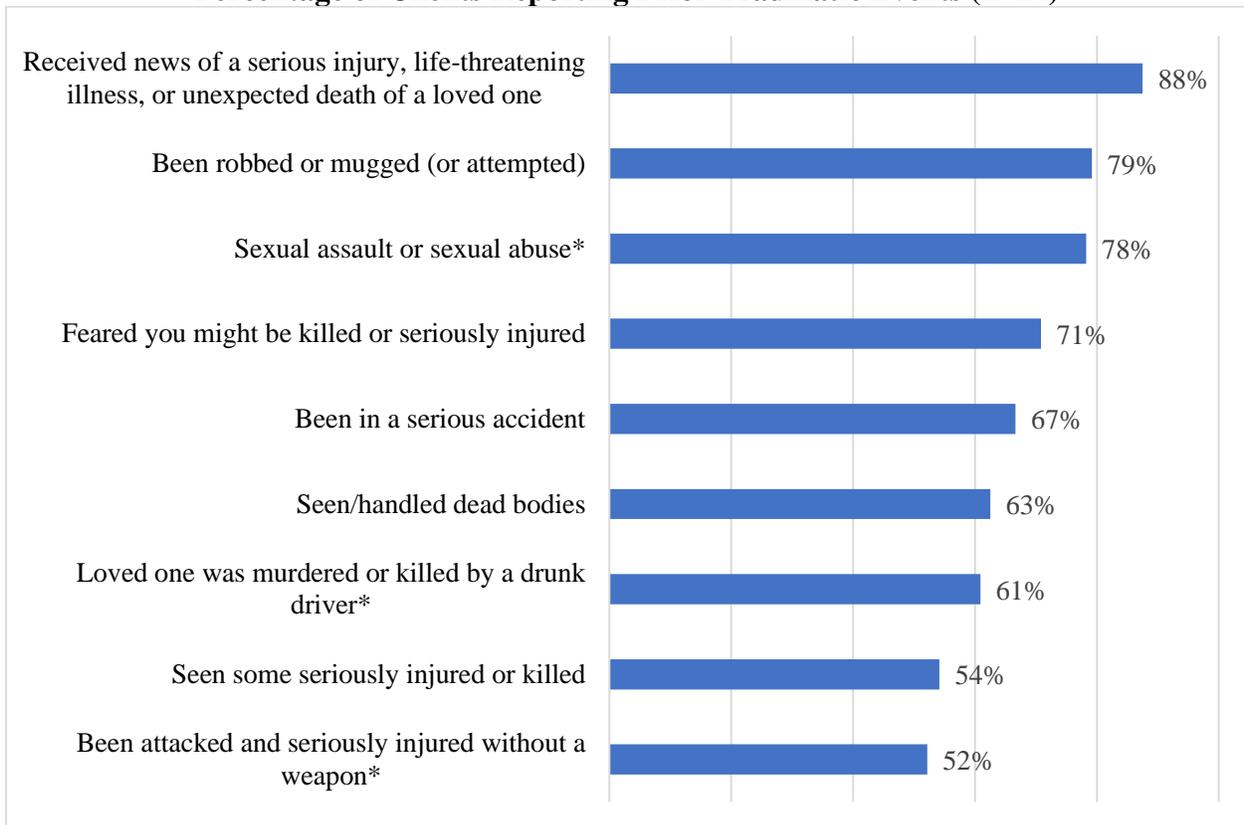
Ninety-two percent of interviewees reported having more than one diagnosed mental health disorder. Of those with multiple mental health disorders, anxiety and mood disorders were most commonly reported (both 92 percent). Two individuals reported being diagnosed with a personality disorder and no other mental health disorders. Eighteen interviewees indicated they had been admitted to a psychiatric hospital/residence at least once. Fourteen of those who reported being hospitalized at least once had been admitted fewer than five times; two respondents had been hospitalized more than ten times. Seventy-five percent of respondents reported having emotional or psychological difficulties within the prior six months.

Twenty-one interviewees had received treatment for substance abuse prior to entering the Dual Diagnosis Program. Eighteen had received prior mental health treatment. Only nine reported they had previously received integrated treatment for substance abuse and mental health conditions.

### Measure of Traumatic Events

Prior traumatic experiences were common in this sample (*Figure 2*). All 24 interviewed clients had experienced at least four types of traumatic events; on average, participants had experienced about 11 different types of traumatic events. Nineteen respondents (79 percent) had experienced a stick-up or mugging or an attempted or completed robbery. Two-thirds of participants reported having been in a serious accident at least once in their life; further, over 70 percent indicated they had been in a situation in which they feared they might be killed or seriously injured. More than half of interviewees had seen someone seriously injured or killed and even more reported a close friend or family member was murdered or killed by a drunk driver. Most respondents reported being sexually assaulted (58 percent); sexual abuse was reported slightly more frequently (63 percent).

**Figure 2**  
**Percentage of Clients Reporting Prior Traumatic Events (n=24)**



Source: ICJIA interviews with program clients

\* = 23 clients answered that item

About half of respondents indicated they had talked about these traumatic experiences in the Dual Diagnosis Program. Those that did not talk about their traumatic experiences indicated it was due, in part, to fears that others in the group might not keep the information confidential or that they did not feel comfortable sharing the experience with the counselors. Others responded that they did not talk about the experiences because it takes them time to open up or because they were new to the program and had not yet had a chance to share. The average length of time of participation in the program for the sample was between three and four months.

### **Client Feedback on the Dual Diagnosis Program**

Nearly all the women interviewed said the program provided new and useful information. Overall, clients thought the program helped them with co-occurring disorders. However, a few women commented that they were only in the program for “contract days” which allows 45 days off their prison sentence for every 90 days in the program. While most clients had a positive view of the program, a few concerns and issues were mentioned. These focused mainly on confidentiality and the dynamic of the group.

**Cognitive restructuring.** A common theme with clients was discovering how to think in new ways. One client noted the importance of addressing both mental health and substance use disorders at the same time to have a better chance at success. Also noted was the importance of strengthening social and problem-solving skills. Clients believed learning about personal triggers and how people/places/things affect recovery were critical to their recovery. Many clients reported that coping skills, talking about feelings, and setting goals were new to them. One woman stated, “I’ve grown so much and I’m a much different person.”

**Group dynamic and programming.** The small group made it easier for clients to share information and for the counselors maintain control. A few women reported some participants were not serious about their recovery effort. One client stated, “Some glorify drug use and admit they aren’t done using.” They said “side conversations” going on between clients were disruptive to the class. These issues made it difficult for clients who are focused on recovery.

Clients were particularly concerned about the limited opportunities to make up missed group hours. Group hours were often missed due to illness or need to take advantage of time allotted by the correctional center to pick up personal property. The women most often mentioned Seeking Safety as their favorite curriculum of the program. Clients also mentioned liking additional programs/classes, such as recovery support groups (NA and AA meetings). Clients viewed variation and variety in program options as effective ways to keep them interested and engaged.

**Privacy and confidentiality.** Clients reported the biggest issue with the program was fear their private information will be shared by other participants. Some clients did not feel comfortable speaking in group because what was previously discussed had been brought up outside of group in a hurtful manner. There was a concern that other participants would share private information with others, including those not in the program. One client stated, “If another client gets mad at you they will tell your deepest secrets outside of group even though they know they shouldn’t.”

**Counselors and other staff.** Most of the interviewed clients found the counselors welcoming, open-minded, and willing to listen. One client stated, “I feel they (the counselors) aren't judging and that they really want to help.” Another noted, “They get me where I need to be. They actually listen to me.” A few clients shared that they thought the counselors were not trustworthy. Many clients built relationships and felt comfortable with certain counselors, and if those staff leave, or if trust was broken, they said it became difficult for them to have trust in the program. While most clients were positive about the counselors, many thought that the correctional officers were not respectful or helpful to their recovery.

**Therapy space.** Nearly all participants found the location—the program center—to be a comfortable and safe space. They reported that the classroom was provided a good learning environment and the smaller setting is conducive to privacy and more individual attention. The counselors’ office, where individual counseling sessions were held, was viewed as private because it was an enclosed room with no one else around. One client felt, however, that the therapy space was “depressing” because it was not decorated.

### **Feedback from Program Staff**

During interviews with program staff, highlights and challenges of the program were discussed. One staff member shared that seeing “lightbulb moments” when a client gained insight about themselves, relationships, or addiction was one of the highlights of the program.

**Program support.** One staff member stated that the program had “amazing staff,” and highlighted the camaraderie between staff and clients. Staff shared the best part of the program was the teamwork between program staff and their ability to help clients with all their issues and needs during treatment. Further, the support from supervisors and IDOC employees was mentioned as being beneficial for the program. Staff specifically mentioned that support from correctional officers in the facility was important to the success of the program. One staff member noted that correctional officers had the ability to undermine the work that was being done in the program and suggested officers receive training on CODs to understand the importance of the Dual Diagnosis Program.

**Therapeutic space.** A common issue that was brought up by staff was the lack of privacy and confidentiality during individual sessions with clients. Due to walls that do not go up to the ceiling in the staff’s office, clients fear that correctional officers or other women can hear them during private sessions. Ideally, staff would prefer separate offices, with full walls, to hold individual sessions in as a means of maintaining a private and therapeutic environment. The classroom setting for the group sessions was described as the most private, but confidentiality between clients was still a concern. One staff member specifically mentioned how clients can be apprehensive that the information they share in group settings would be repeated by other clients.

All three staff members mentioned the fact that the treatment area does not have air conditioning or consistent heat. One staff member said an administrative assistant left her position due to the heat. Another staff member claimed that it can be tough to keep clients’ attention during group sessions in the summer, as the temperature can be distracting.

**Other treatment challenges.** Staff noted other challenges. For example, staff found it difficult to ensure that clients of the program remained medication compliant. Some women chose to stop taking their medications, which impeded further treatment. Staff said crisis intervention also was a challenge. While each staff member has a caseload, sometimes they are required to attend to a client who is in crisis but not on their caseload. This requires giving crisis treatment to someone the staff know very little about, which can be difficult. Two staff also suggested more training on co-occurring disorders, substance use disorders, and mental health disorders should be provided to ensure the program is best treating clients. Lastly, one staff member stated materials used in the program were outdated, adding the process of getting new material was expensive and moved slowly through IDOC.

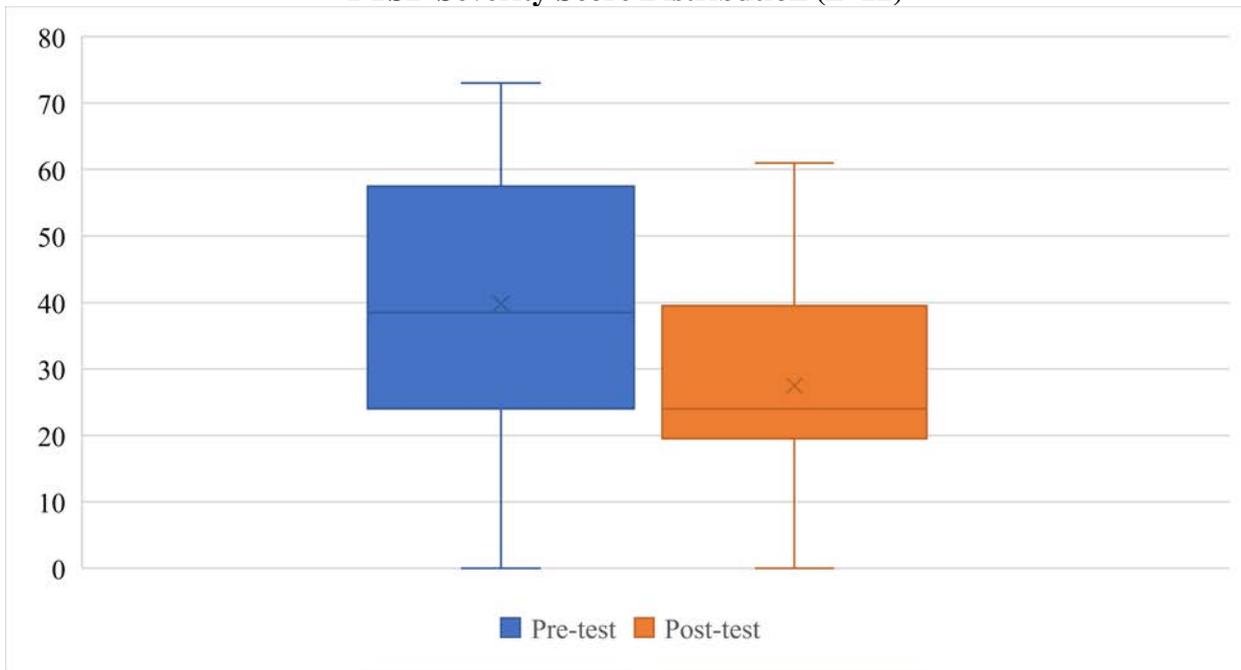
Overall, staff appeared pleased with the work that the Dual Diagnosis Program was doing, despite limited resources and uncomfortable facilities. All staff agreed more beds are needed to expand treatment to more than 26 clients at a time.

## Section 6: Initial Outcome Evaluation

### Pre- and Post-Test Measure of Posttraumatic Stress Disorder and Symptomology

A total of 24 clients completed both a pre- and post-test that measured PTSD symptoms and severity. The self-report rating scale was 0-4 for each symptom—0=Not at all, 1=A little bit, 2=Moderately, 3=Quite a bit, and 4=Extremely. Scores can range from 0 to 80. The average PTSD severity score was 41.54 before the program and 27.75 after the program. *Figure 3* depicts the severity score distribution using a box-whisker plot, which graphically displays the high and low ends of the distribution and the inter-quartile range of PTSD severity scores (using horizontal brackets). It appears that as a group, PTSD severity scores declined post-treatment.

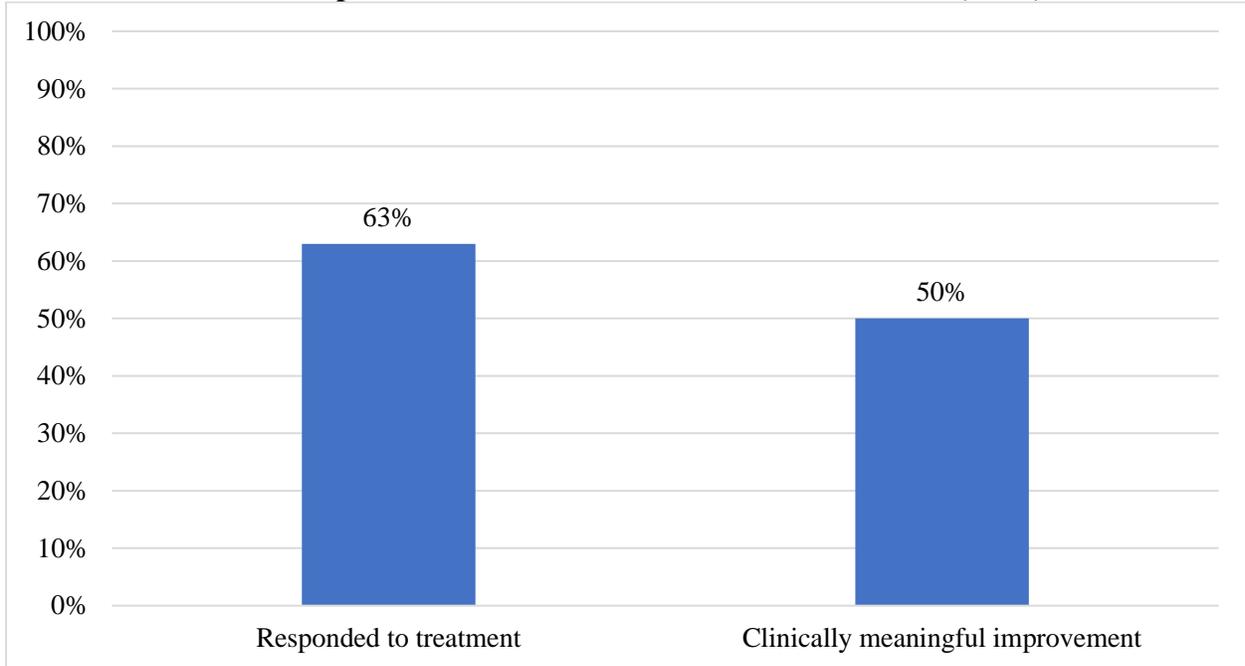
**Figure 3**  
**PTSD Severity Score Distribution (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) data, client PCL-5 data

**PTSD response to treatment.** Evidence for the PCL-5 suggested five points as a minimum threshold for determining whether an individual has responded to treatment and 10 points as a minimum threshold for determining whether the improvement is clinically meaningful. In the sample of 24 clients, 15 decreased their scores by 5 or more points and 12 decreased their scores by 10 or more points (*Figure 4*). One client's PCL scores stayed the same and two clients had scores that worsened.

**Figure 4**  
**Client Responses to Treatment Based On PCL-5 Scores (n=24)**



Source: ICJIA analysis of WestCare Foundation (Illinois), client PCL-5 data

Note: Based on pre- and post-test scores; responded to treatment= 5 or greater score reduction; clinically meaningful= 10 or greater score reduction

**Probable PTSD diagnosis.** For the purposes of this report, the established PCL-5 cut-off score of 33 was used to classify individuals as having a probable PTSD diagnosis, using DSM-5 symptom criteria (*Table 1*). The term “probable” is used because only clinicians, not researchers, are able to make diagnoses.

**Table 1**  
**DSM-5 Criteria for PTSD Diagnosis**

<b>Criterion A: Exposure to a traumatic event</b>	Person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s): <ul style="list-style-type: none"> <li>• Direct exposure</li> <li>• Witnessing the trauma</li> <li>• Learning that a relative or close friend was exposed to a trauma</li> <li>• Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)</li> </ul>
<b>Criterion B: Re-experiencing a traumatic event</b>	Traumatic event is persistently re-experienced, in the following way(s): <ul style="list-style-type: none"> <li>• Unwanted upsetting memories</li> <li>• Nightmares</li> <li>• Flashbacks</li> <li>• Emotional distress after exposure to traumatic reminders</li> <li>• Physical reactivity after exposure to traumatic reminders</li> </ul>
<b>Criterion C: Avoidance of trauma-related stimuli</b>	Avoidance of trauma-related stimuli after the trauma, in the following way(s): <ul style="list-style-type: none"> <li>• Trauma-related thoughts or feelings</li> </ul>

	<ul style="list-style-type: none"> <li>• Trauma-related reminders</li> </ul>
<b>Criterion D: Negative thoughts (2 symptoms required)</b>	<p>Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):</p> <ul style="list-style-type: none"> <li>• Inability to recall key features of the trauma</li> <li>• Overly negative thoughts and assumptions about oneself or the world</li> <li>• Exaggerated blame of self or others for causing the trauma</li> <li>• Negative affect</li> <li>• Decreased interest in activities</li> <li>• Feeling isolated</li> <li>• Difficulty experiencing positive affect</li> </ul>
<b>Criterion E: Arousal/ reactivity (2 symptoms required)</b>	<p>Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):</p> <ul style="list-style-type: none"> <li>• Irritability or aggression</li> <li>• Risky or destructive behavior</li> <li>• Hypervigilance</li> <li>• Heightened startle reaction</li> <li>• Difficulty concentrating</li> <li>• Difficulty sleeping</li> </ul>

Source: American Psychiatric Association, 2013

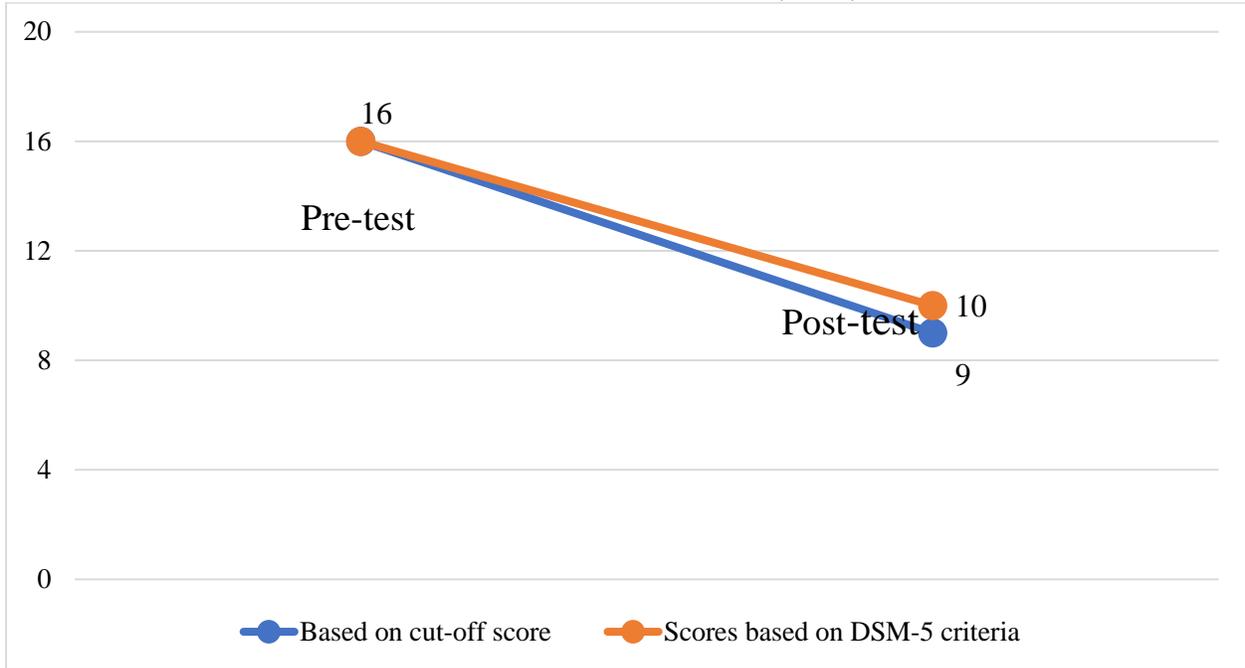
Based on a cut off score of 33, before the program 16 women had a probable PTSD diagnosis; after the program nine women had a probable PTSD diagnosis.

Another method besides average scores on the PCL-5 can be used to determine probable PTSD based on DSM-5 diagnostic criteria. The method involves treating each item rated as 2="Moderately" or higher as a symptom endorsed, then following the DSM-5 diagnostic rule which requires at least:

- One criterion B item.
- One criterion C item.
- 2 criterion D items.
- 2 criterion E items.

Based on responses, before the program 16 women had a probable PTSD diagnosis; after the program, 10 women had a probable PTSD diagnosis (*Figure 5*).

**Figure 5**  
**Number of Clients with Probable PTSD Diagnosis at**  
**Pre- and Post- Intervention (n=24)**

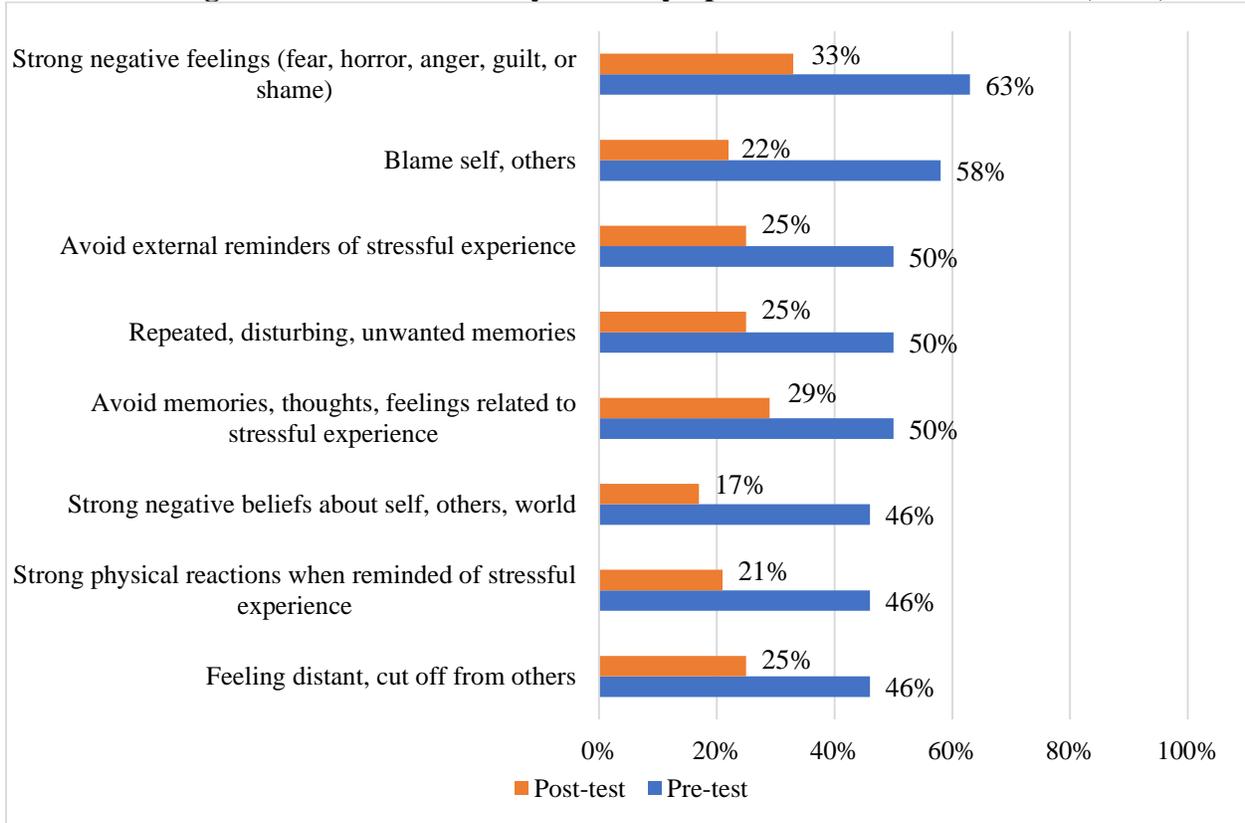


Source: ICJIA analysis of WestCare Foundation (Illinois), client PCL-5 data

**PTSD symptoms.** Clients were asked at the start of the program (pre-test) and upon completion (post-test) to indicate how bothered they were by certain problems (or symptoms) related to stressful experiences. At the start of the program, the most common symptom was having strong negative feelings such as fear, horror, anger, guilt or shame (63 percent) followed by blaming themselves or others for the stressful experience(s) (58 percent).

*Figure 6* indicates the PTSD symptoms to which the most clients responded they were bothered “quite a bit” or “extremely” at the pre-test and their corresponding scores at the post-test.

**Figure 6**  
**Percentage of Clients Bothered by PTSD Symptoms at Pre- and Post-test (n=24)**



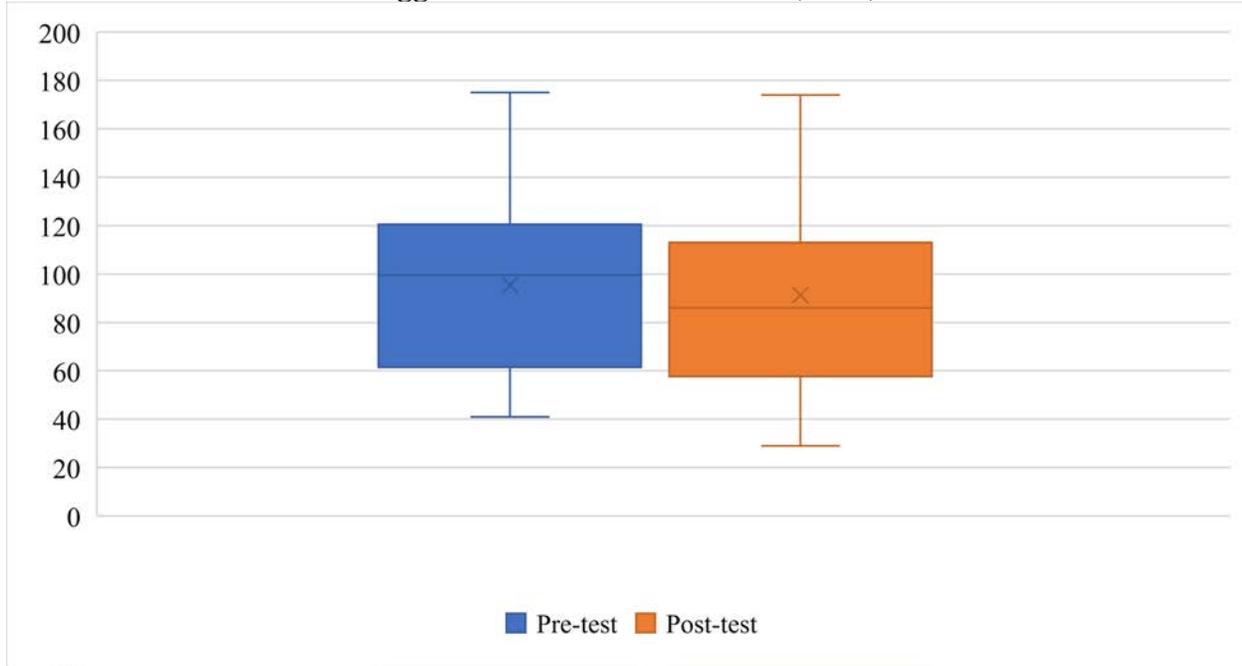
Source: ICJIA analysis of WestCare Foundation (Illinois), client PCL-5 data.

Note: Seven most commonly reported symptoms of 20 symptoms at intake/pre-test.

### Pre- and Post-Test Measure of Client Aggression

Twenty-two clients completed the Buss Perry Aggression Questionnaire, ranking statements on a 7- point Likert scale from "extremely uncharacteristic of me" to "extremely characteristic of me." The average aggression score before the program was 95.4 and the average score after the program was 91.3. *Figure 7* depicts the score distribution using a box-whisker plot, which graphically displays the high and low ends of the distribution of aggression scores (using horizontal brackets).

**Figure 7**  
**Aggression Score Distribution (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.

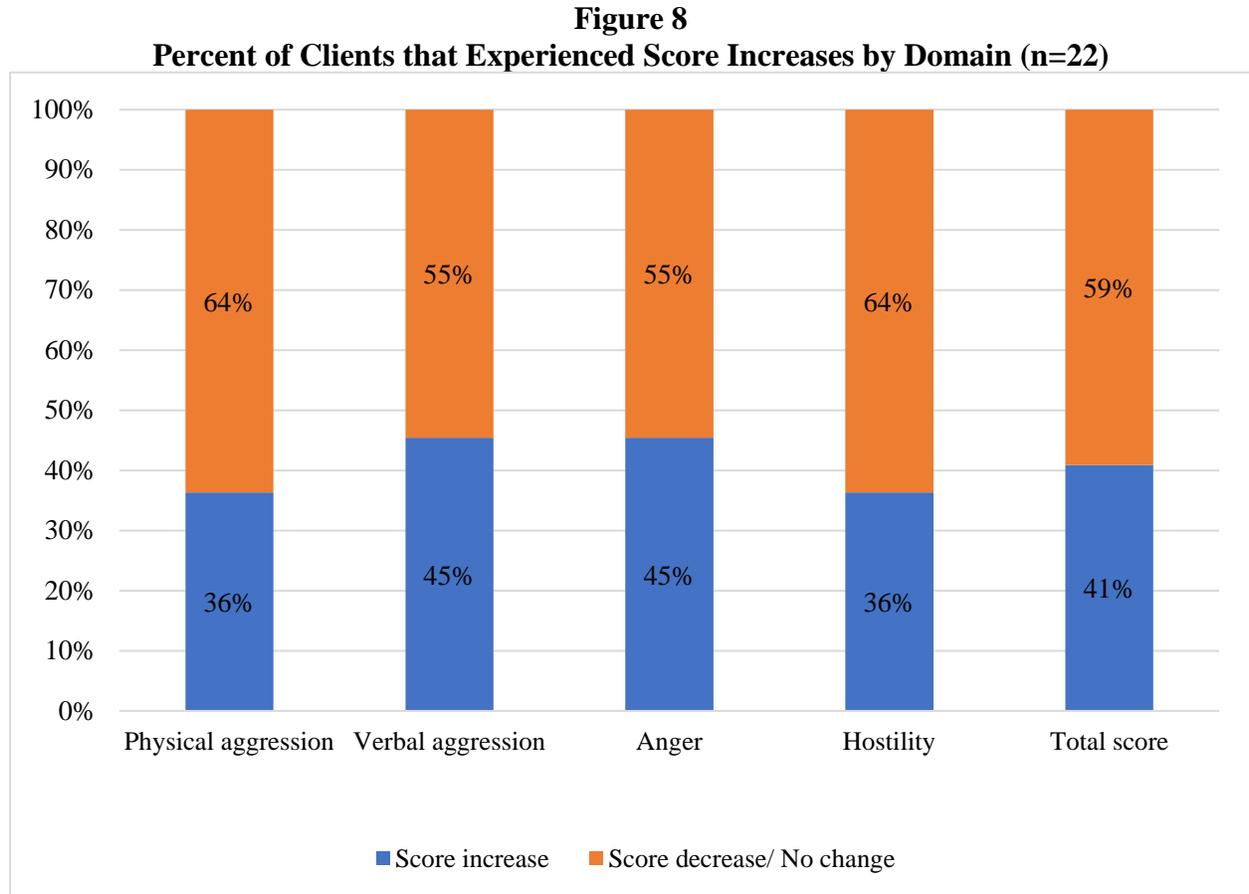
**Response to treatment.** Post-tests indicated that three out of five domain scores declined. Physical aggression, hostility, and the total score experienced a decline, while both verbal aggression and anger experienced a slight increase (*Table 2*). Further, the number of clients who scored above the average scores in each domain decreased in physical aggression, hostility, and total score. After the post-test, the number of individual scores over the average threshold for verbal aggression experienced a slight increase, and the number of individual scores over the average threshold for anger experienced no change at all.

**Table 2**  
**Changes in Aggression Scores (n=22)**

	Mean time 1 (n=22)	Number over average threshold	Mean time 2 (n= 22)	Number over average threshold	Difference mean 1 to mean 2
Physical aggression	29.4	10	25.6	8	-3.82
Verbal aggression	17.3	9	18.3	10	1
Anger	22.3	12	23.9	12	1.68
Hostility	26.5	12	23.5	8	-2.95
Total score	95.4	12	91.3	9	-4.09

Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.

While the total aggression scores decreased an average of 4.1 points, every domain showed increased client scores. *Figure 8* depicts that between 36 percent and 45 percent of clients experienced an increase in score in a specific domain, despite the treatment they received.

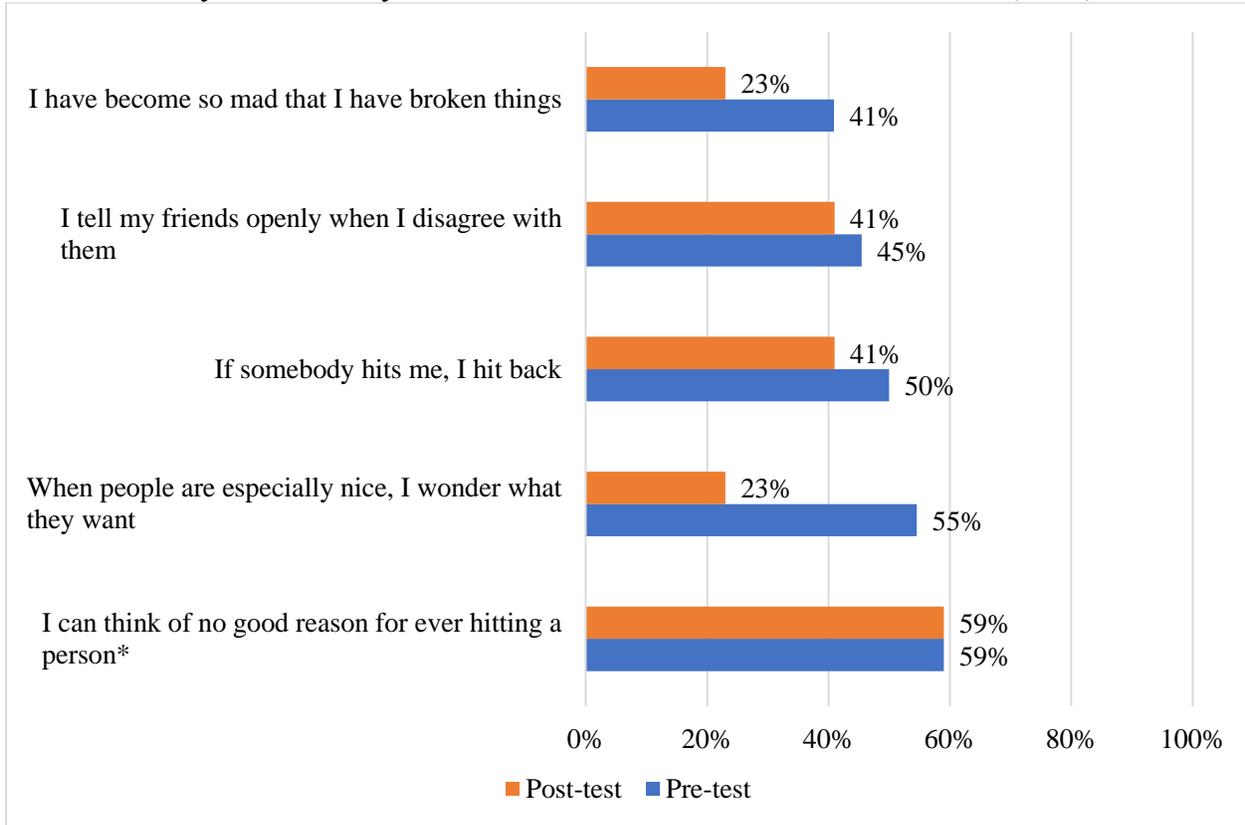


Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.

Clients were asked to indicate how characteristic certain statements were of them at the start of the program (pre-test) and upon completion (post-test). High scores refer to those that indicated a statement is either very or extremely characteristic of them. At the start of the program, the statement with the highest scores was “I can think of no good reason for ever hitting a person (59 percent; scores were reverse coded) followed by “When people are especially nice, I wonder what they want” (55 percent).

*Figure 9* depicts the aggression symptoms with the largest percentage of high scores at the pre-test and the corresponding percentage of high scores at the post-test.

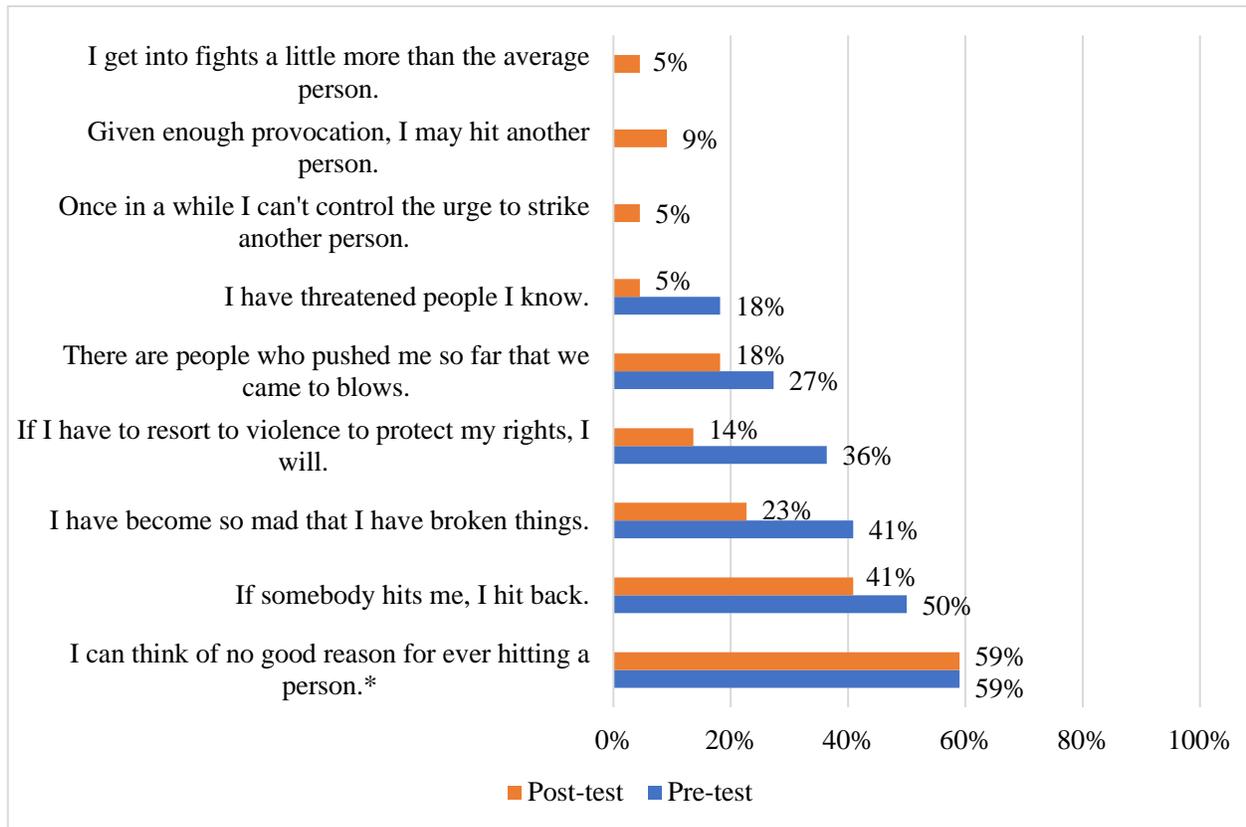
**Figure 9**  
**Aggression Items Reported by Clients as**  
**Very or Extremely Characteristic of Them at Pre- and Post-test (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.  
 \* Item was reverse-coded or worded in the opposite direction; researchers reverse-scored the items.

**Physical aggression.** The Buss Perry Aggression Questionnaire contains nine items specific to clients’ self-reported levels of physical aggression. Scores for five of nine items clients reported were very or extremely characteristic of them (55.6 percent) declined from pre- and post-test. The biggest decline was seen in response to the statement “If I have to resort to violence to protect my rights, I will,” which dropped from 36 percent to 14 percent, and the greatest increase was seen in response to “Given enough provocation, I may hit another person,” which increased from 0 percent to 9 percent. *Figure 10* shows a breakdown of responses in the physical aggression domain.

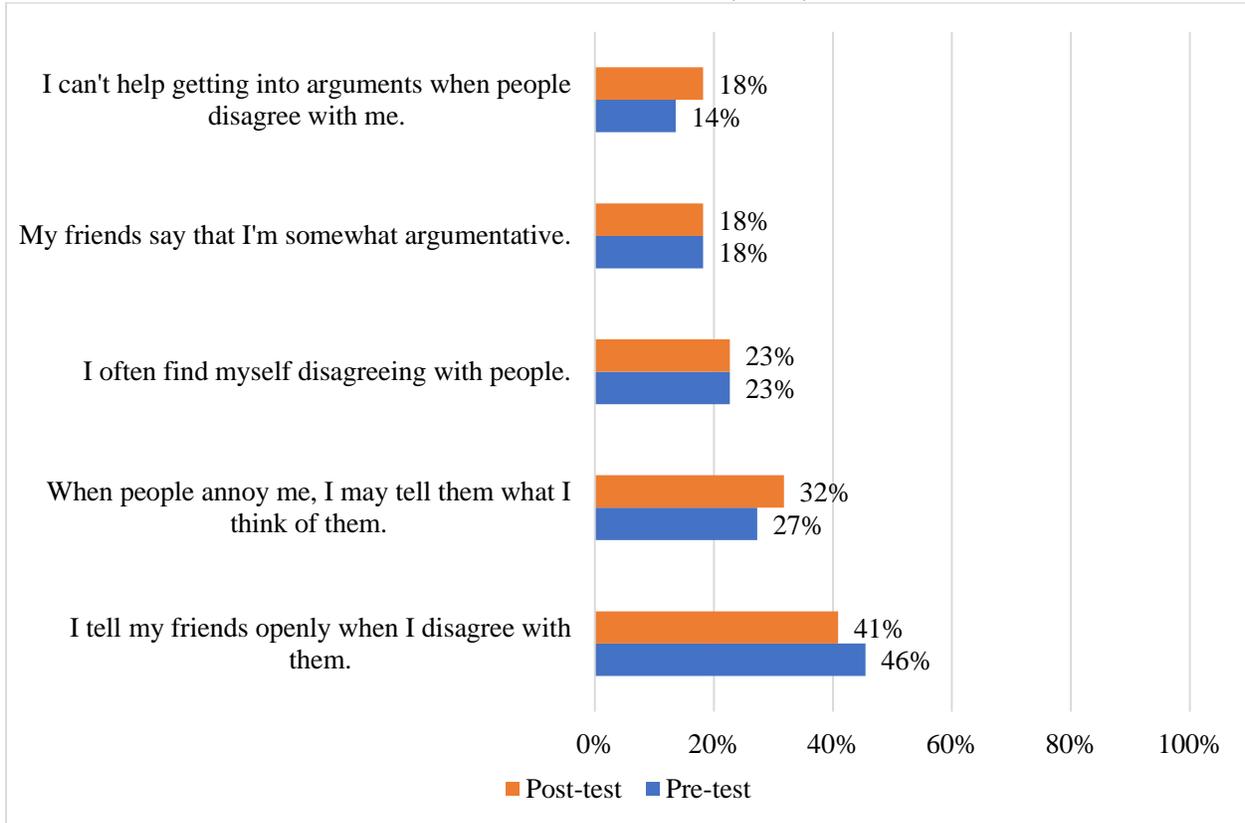
**Figure 10**  
**Physical Aggression Items Reported by Clients as *Very* or *Extremely* Characteristic of Them at Pre- and Post-test (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.  
 \* Item was reverse-coded or worded in the opposite direction; researchers reverse-scored the items.

**Verbal aggression.** The Buss Perry Aggression Questionnaire contains five items specific to verbal aggression. A decline was seen in response to the statement “I tell my friends openly when I disagree with them” from 46 percent to 41 percent. The greatest increase was seen in response to “When people annoy me, I may tell them what I think of them,” which increased from 27 percent to 32 percent. *Figure 11* illustrates the high scores in the verbal aggression domain.

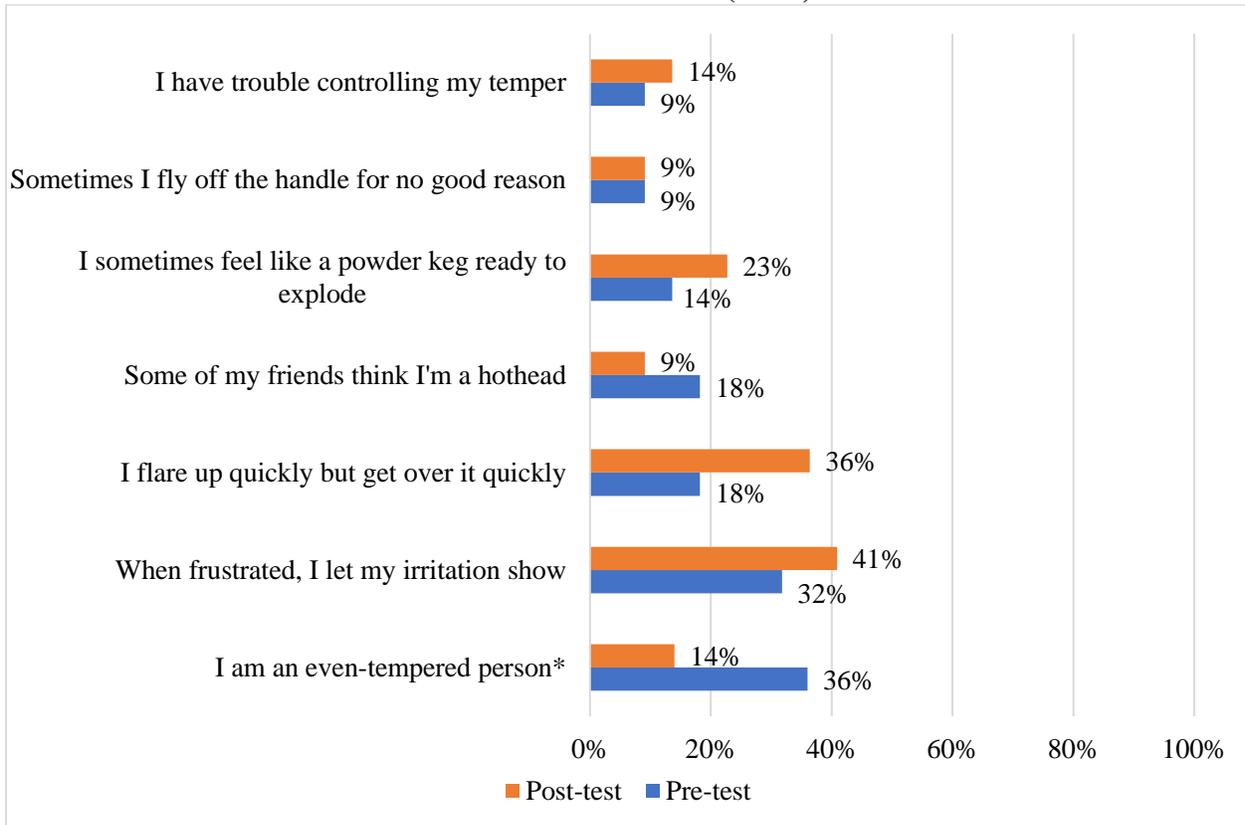
**Figure 11**  
**Verbal Aggression Items Reported by Clients as *Very* or *Extremely* Characteristic of Them at Pre- and Post-test (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.

**Anger.** Seven items on the questionnaire were specific to anger. A decline was seen in scored responses to the statement, “I am an even-tempered person,” from 36 percent to 14 percent. The greatest increase was seen in response to the statement, “I flare up quickly, but get over it quickly,” from 18 percent to 36 percent. *Figure 12* illustrates high scores in the anger domain.

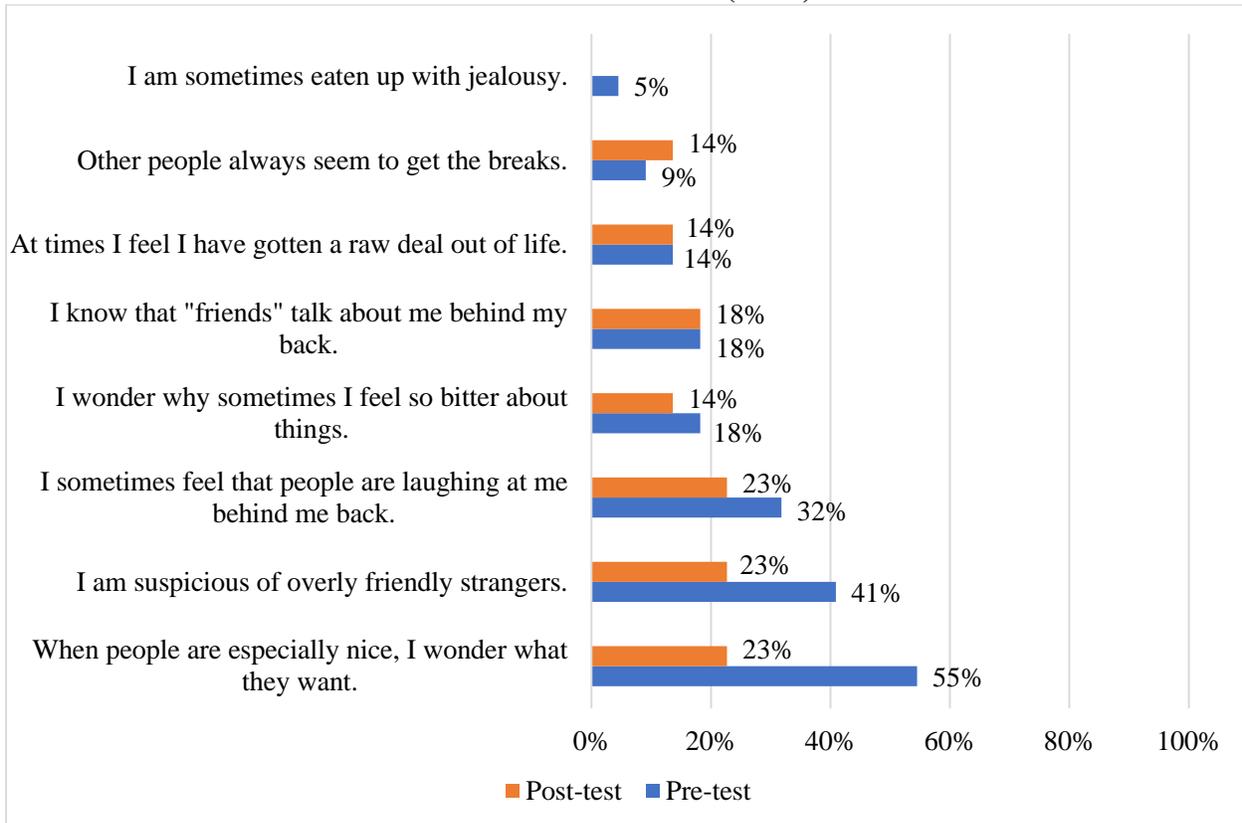
**Figure 12**  
**Anger Items Reported by Clients as Very or Extremely Characteristic of Them**  
**at Pre- and Post-test (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.  
 \* Item was reverse-coded or worded in the opposite direction; researchers reverse-scored the items.

**Hostility.** Eight questionnaire items were specific to hostility. A scoring decline was seen on four of the items between pre- and post-tests. The biggest decline was seen in response to the statement, “When people are especially nice, I wonder what they want,” which dropped from 55 percent to 23 percent. The greatest increase was seen in response to the statement, “Other people always seem to get the breaks,” rising from 9 percent to 14 percent. *Figure 13* shows illustrates the high scores in the hostility domain.

**Figure 13**  
**Hostility Items Reported by Clients as *Very* or *Extremely* Characteristic of Them**  
**at Pre- and Post-test (n=22)**



Source: ICJIA analysis of WestCare Foundation (Illinois) client responses to Buss Perry Aggression Questionnaire.

### **Limitations of Pre- and Post-test Findings**

Many PTSD and aggression symptoms were reduced after the program; however, it is unknown to what degree symptoms would have resolved over time without treatment. Based on a review of the literature, some individuals, usually those with strong coping skills and protective factors, can be resilient in relation to trauma and PTSD (Agaibi & Wilson, 2005). In a systematic review of 58 articles employing a longitudinal study of PTSD, the median occurrence of PTSD in individuals across all the studies was 29 percent at one month and reduced to 17 percent after one year (Santiago et al., 2013). A more rigorous design to measure the impact of the Dual Diagnosis Program would be to collect PTSD and aggression scores over time of a comparison group, such as program-eligible individuals on the waiting list. This would allow the program to learn the extent to which similar individuals' PTSD and aggression scores changed without an intervention.

## **Section 7: Feasibility Study for Supplemental Outcome Evaluation**

Feasibility studies help determine whether a program is ready and primed for further testing. ICJIA researchers assessed the potential for an outcome evaluation of the Dual Diagnosis Program. Researchers examined relevant data available from IDOC and the WestCare Foundation (Illinois) and determined that an outcome evaluation is not feasible at this time.

For the supplemental outcome evaluation, researchers initially sought to conduct a study using quasi-experimental design that would entail comparing Dual Diagnosis Program clients and a similarly situated control group made up of women who met eligibility, but did not have enough time left on their sentences, were on a waiting list, or did not want to participate in the program. Outcomes would be measures of recidivism—both arrest and reincarceration. For research purposes, ICJIA has access to Criminal History Record Information (CHRI) data that provides information on arrests, arrest charges, court dispositions, and sentences. Additionally, IDOC provides annual flat files of those admitted to and released from the IDOC. This data can help provide recidivism information—rearrest(s) and/or reincarceration(s) post-release from the Dual Diagnosis Program.

### **Sample Size**

The Dual Diagnosis Program at Logan Correctional Center began August 2015 and has a capacity of 26 women for the approximately six-month program. This results in a more limited sample due to lack of sufficient follow-up time to identify meaningful outcomes.

### **Program Data**

ICJIA researchers obtained basic data on program clients and other potential clients that would make up the control group. The WestCare Foundation was awarded the contract to run the Dual Diagnosis Program starting in June 2017. However, upon review of data provided by the previous service provider, the Wells Center, it became clear information necessary to conduct an outcome evaluation was limited. Missing were program start dates and end dates; indication of substance use disorder diagnosis and mental health disorder diagnosis; program eligibility, program eligibility for those who did not accept the program or did not have enough time on their sentence, and/or program ineligibility (for any participant interviewed for the program; and/or length of time in the program. It is important as the WestCare Foundation moves forward as the provider of the Dual Diagnosis Program that they are cognizant of these previous provider data issues and move forward with complete data, especially for any feasible outcome evaluation.

### **Corrections data**

ICJIA researchers requested from IDOC demographic information, program start and end dates, Texas Christian University (TCU) Substance Abuse Screenings, mental health disorder diagnosis, initial department of corrections admission dates, and mandatory supervised release dates. While IDOC data provided substantial information, data were missing on program participants and a similarly situated control group on TCU data, mental health evaluations, and

some mandatory supervised release dates belonging to some women. A recent migration by IDOC into a new data management system might have resulted in the missing information.

### **Future Potential Outcome Evaluation**

Moving forward, the main recommendation for the program is to increase its capacity to document programmatic information, particularly upon intake, eligibility considerations, and start and end dates for program participants. This will make for more consistent and complete program data documentation, but also provide necessary information for staff and increase potential for an outcome evaluation. Program documentation should minimally include the data outlined above, with more consistency and detail in how this information is documented by staff. This should also include a more functional working document of women on the waitlist for the program with each women's interview date and projected mandatory supervised release date.

## **Section 8: Conclusion**

Co-occurring disorders (COD)—both substance use disorders (SUD) and mental health disorders (MHD)—affect many women incarcerated in prison. To address the needs of women in prison with COD, the Dual Diagnosis Treatment Program in the Illinois Department of Corrections was established. The program was operated by WestCare Foundation at Logan Correctional Center for women. Illinois Criminal Justice Information Authority (ICJIA) researchers evaluated the program examining administrative data and interviewing staff and clients.

Initial impact data indicate that there may have been positive outcomes in PTSD symptomology, as well as in some aspects of aggression. Clients reported reduced PTSD symptoms and decreased issues in some areas of aggression before and after programming. The program administered a validated measure of PTSD before and after programming. The measure found that 63 percent responded to treatment and 50 percent showed clinically meaningful improvement. Without a more rigorous methodology, researchers were unable to conclusively determine whether these gains can be attributed to the program.

However, the interviews with clients and staff suggest that overall the program has made a positive impact in its clients. Interviewed clients shared that the program helped them with their co-occurring disorders. Interviewed clients shared that the program was important because it offered a chance for cognitive restructuring, as well as improved problem-solving and coping skills. Staff were satisfied with the program overall despite limited resources and the need for therapeutic space improvements. The staff expressed a desire for program expansion that would allow them to treat more clients.

## Section 9: Implications for Policy and Practice

It is recognized that prisons generally, and prison-based mental health and substance use treatment programs in, have security challenges and very limited resources. The main barriers to treatment for prisoners include budgetary constraints, space limitations, and a limited number of counselors (CASA, 1998). However, other more manageable issues were revealed in this study. Researchers made the following suggestions.

### Improve the Program's Physical Space

**Therapeutic space.** Interviews with program staff highlighted the need for changes in the physical space provided for therapy. Physical environments, including accessories, colors, furniture, lighting, sound, smell, texture, and thermal conditions, have been found to impact the effectiveness of therapy and can even discourage successful treatment of incarcerated individuals (Pressly & Heesacker, 2001; SAMHSA, 2013b). According to Reilley (2017), "Prison-like spaces, with hard surfaces and no windows, are particularly inappropriate for people with mental illness." Although prisons often must retrofit their therapy space within existing prison walls, there are things that can be done to modify spaces for therapy. The following are design suggestions for a therapeutic space that can be incorporated in the program to the extent possible (Reilley, 2017):

- Do not have internal rooms.
- Use internal gardens where possible or views to nature and greenery.
- Have discrete entry points to protect privacy.
- Provide opportunities to exercise control, such as, dimmable lighting to promote, a sense of calm.
- Minimize surveillance panels, security partitions and visible security measures which make those undergoing therapy feel scrutinized and controlled.
- Ensure visual and acoustic privacy.
- Ensure layout is non-confrontational and can be flexibly arranged.

Privacy was an issue that staff and clients brought up multiple times. If clients do not feel a sense of privacy in treatment, they may disclose less information, making treatment more difficult (Holahan & Slaikeu, 1977; Pressly & Heesacker, 2001). A comfortable and private space is needed for both treatment providers and clients to encourage meaningful therapy sessions.

**Housing unit.** Some clients shared with researchers that there was a negative stigma attached to participating in the program. It was suggested that the program should have its own house [building/dorm] to provide more privacy and anonymity from other non-dual diagnosis participants. Specially trained correctional officers (see below) could be assigned to the housing unit, which would lessen the concern that they are not respectful or helpful to the clients. A housing unit could also somewhat address concerns about privacy, so there are less opportunities to share what happens in therapy beyond the unit in the general population.

## **Train Correctional Officers**

Treatment staff reported a need for correctional officer training in substance use disorders, mental health disorders, and co-occurring disorders, as a means of creating a culture that supports therapeutic efforts while maintaining security. Staff understood that safety in the prison setting was vital, but they felt that correctional officers could work to improve the overall environment that clients experienced. Research has found that when criminal justice personnel understand treatment and its impact on reducing recidivism and relapses, there is less of a focus on creating a setting with the sole focus of custody (SAMHSA, 2013b). As correctional officers frequently encounter inmates that experience substance use disorders and mental health use disorders, it is important for their safety and the safety of the inmates to understand symptoms and other issues related to this population.

Further, collaboration and cooperation between treatment staff and correctional staff should be encouraged. As the Dual Diagnosis Program is set in a correctional facility, there is a need for safety and security to co-exist with a therapeutic environment. When treatment providers and correctional officers understand the responsibilities of the other group, there is an increased chance for effective treatment (SAMHSA, 2013b). Free cross-disciplinary training tools on CODs in correctional settings do exist, and it may be possible to incorporate these tools into correctional officer and treatment staff orientation or training. The Residential Substance Abuse Treatment program offers one free training tool (Braude & Miller, 2011).

## **Enhance Program Components**

**Aftercare.** Many clients stated there would be little or no follow-up once they are released from prison. A few women stated they hoped to continue with a dual diagnosis program once released. Program staff confirmed the lack of a formalized aftercare portion of the program. This is problematic as aftercare is important in increasing the chances of maintaining what was achieved during treatment. For example, drug treatment programs in prison followed by community-based aftercare has been found to reduce recidivism and relapse (SAMHSA, 2013b). Further, a study on treatment of prisoners with a dual diagnosis found that while those receiving treatment for their dual diagnosis returned to prison at a lower rate than the control group, those that received treatment and aftercare had even lower rates of returns to prison and criminal activity (Sacks, Sacks, McKendrick, Banks, & Stommel, 2004).

Professionals agree that continuity of care and a high level of support are essential for re-entering women with COD (Johnson et al., 2015). Johnson et al. (2015) recommends the following for women leaving correctional COD treatment:

- Relationships with at least one helping professional that began in prison and extended into the community.
- Emergency help that women could access in the first 24–72 hours after release.
- Support for multiple problems and contacts with numerous social service agencies, such as wraparound services, case management, supportive housing with on-site professional services, mentors, coaching with basic life skills, or reentry specialists.

- Checking in with women frequently (even daily) and to be available to listen to their concerns and to accompany or coach them through procuring needed services and resources.
- Long-term treatment follow-up.

It would be beneficial for the program could use a case manager that works with clients during their aftercare in the months following their release. Case managers could collaborate with the parole division and help clients navigate their lives post-release. This could include helping clients sign up for insurance, finding a COD treatment provider, and maintaining medication compliance. However, additional resources would be needed to include an aftercare component.

**Program make-up hours.** The biggest issue mentioned by clients was difficulty in making up missed group hours. The requirements and restrictions placed on the individuals by both the Dual Diagnosis program and IDOC itself created a need for more flexible and increased group hours. Availability of make-up hours is important to meet the program completion requirements.

### **Conduct Additional Research**

To better measure the impact of the Dual Diagnosis Program, it would be necessary to collect PTSD and aggression scores over time of a comparison group, such as a those who are program-eligible on the waiting list. This would allow researchers to examine to what extent similar individuals' PTSD and aggression scores change over time without intervention. If possible, future research should employ randomized control trials for client selection and testing various program aspects. Such a process could shine a light onto what extent the program and program components are effective for this population.

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