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Predictive Factors of Drug Court Completion for Female Participants

Shannon Jordan
Walden University

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Walden University

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Walden University
2019

Abstract

Predictive Factors of Drug Court Completion for Female Participants

by

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MSW, Saint Louis University, 2000

BSW, University of Missouri-St. Louis, 1995

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Women comprise one of the fastest growing populations of the criminal justice system, yet little research exists concerning the success of these women completing a coed pretrial drug court diversion program. Trauma theory was applied to inform the variables in this quantitative correlational study. The predictive nature of age, educational level, marital status, violent criminal history, and mental health problems for women were examined in relation to completion of a coed pretrial drug court diversion program. A convenience sample from secondary, archival data was obtained from a criminal justice agency in Washington, DC. The dataset included women who participated in the program between January 1, 2009 and December 31, 2014. Logistic regression models were used to predict the likelihood of whether these women completed drug court and determine which independent variables were likely to increase or decrease the probability of program completion. Results of the study failed to yield statistically significant relationships between the variables examined. However, the findings indicate possible relationships between marriage and drug court completion, and postsecondary education and drug court completion, which require additional research. Implications for positive social change are drawn for other criminal justice agencies, drug courts, and administrators for enhancing program delivery and reducing women's recidivism.

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Dedication

I dedicate this work to my beloved mother, the late Linda G. Shaw. Thank you for guiding and watching over me. I thank you for teaching me humility, perseverance, and confidence. To my father, James E. Shaw, Sr., who has shown me the importance of education and family. To my dear mother-in-law and father-in-law who both passed away during this journey. Thank you for your continuous encouragement and love.

Lastly, I want to thank my incredible husband, Christopher P. Jordan, Sr., who stood by me so that I could achieve this amazing goal. I would not and could not have accomplished this without you! I am fortunate.

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Chapter 1: Introduction to the Study

Introduction

Substance use and dependence is a complex social and health problem that affects millions of women and their families. Women experience substance dependence differently than men (Bell, 2017; Bloom, Owen, & Covington, 2003; Covington, 2008; Green, Miranda, Daroowalla, & Siddique, 2005; Lynch, Fritch, & Heath, 2012; Tseris, 2013). Addicted women struggle with the widespread issues of physical and sexual abuse; relationship issues; and systemic issues, such as lack of financial resources and adequate housing for their families (American Psychological Association, 2018; Bloom et al., 2003). Women who abuse substances have higher rates of childhood and adult physical and sexual abuse (Bell, 2017; Bloom, Owen, & Covington, 2005; 2005; Lynch et al., 2012). Compared with men, women experience greater substance use disorder-related problems, including a faster progression to substance dependency; higher mortality rates; and greater social isolation, shame, and stigma (Bloom et al., 2005; Covington, 2008; Tseris, 2013).

In conjunction with posttraumatic stress, psychological disorders may also ensue, including depression, anxiety, and substance abuse problems (American Psychological Association, 2018). Health problems and co-occurring disorders are common among substance abusing women (Bloom et al., 2005; Covington, 2008). Researchers did not postulate a gender-specific biopsychosocial theoretical model to explain this incongruity (Bloom et al., 2005). Trauma theory, however, challenges conventions of traditional treatment interventions with women, emphasizing the interactive impact of biological,

psychological, and social factors on women's health (Tseris, 2013) and highlighting the linkage between adverse relationships and criminality on women (Messina, Calhoun, & Warda, 2012).

Despite women's distinctive treatment needs (Covington, 2008; Ney et al., 2012), traditional drug treatment programs combine men and women in groups and offer a standard drug treatment curriculum (Messina et al., 2012). Just the same, men and women follow different trajectories into criminality (Ney et al., 2012) and substance abuse (Messina et al., 2012). Women's criminality is symptomatic of interpersonal relationships with family, friends, or significant others (Bloom et al., 2005; Covington, 2008). Difficulties with emotional health have a greater correlation with recidivism for women than for men (van der Knaap, Alberda, Oosterveld, & Born, 2012). A meta-analytic review of the effectiveness of gender-informed versus gender-neutral correctional interventions for adult women revealed how justice-involved women respond positively to substance abuse treatment programs shown to target salient factors that lead them to crime (Gobeil, Blanchette, & Stewart, 2016). Moreover, relative to all other criminogenic needs, emotional problems are more significant for women than their male counterparts in predicting overall recidivism as well as violent reoffenses (Bloom et al., 2005; Covington, 2008).

Crime reduction is a long-term benefit of gender-specific programming for women involved in the criminal justice system (Kissin, Tang, Arieira, Claus, & Orwin, 2015). Just the same, women require empowerment interventions to combat relational susceptibilities and abusive relationships to foster healthy relationships, reduce crime,

and promote sobriety (Nuytiens & Christiaens, 2015). Female participants in gender-responsive groups had more favorable experiences in treatment, performed better while in treatment, and experienced a decrease in symptoms related to posttraumatic stress disorder (PTSD; Messina et al., 2012).

Group dynamics differ between all-female groups and mixed-gender groups. Female-only groups are the modality of choice for women in the early stage of recovery and sexual abuse survivors (American Psychological Association, n.d.; Bloom et al., 2005; Covington, 2008). Later in treatment, once a woman progresses through the recovery process, mixed-gender groups are beneficial (American Psychological Association, n.d.). The prevalence of justice-involved women with trauma makes it necessary to deliver appropriate substance abuse treatment to this population to increase treatment success as well as reduce relapse and recidivism.

Background

The U.S. war on drugs caused a dramatic surge in the number of women in the criminal justice population (Bello, Hearing, Salas, Weinstock, & Linhorst, 2019; Golder et al., 2014; VanderWaal, Taxman, & Gurka-Ndanyi, 2008; vanWormer & Perrson, 2010). Between 2010 and 2013, the number of female inmates rose 10.9%; yet, the male inmate population declined 4.2% during this period (Bureau of Justice Statistics [BJS], 2014). As of 2013, roughly 1.2 million women were under supervision in the criminal justice system, while the majority of this population was under probation supervision (BJS, 2014).

Drug abuse, drug-seeking behavior, and illicit activities to acquire drugs frequently lead to involvement in the criminal justice system (Lehman, Greener, Rowan-Szal, & Flynn, 2012; VanderWaal et al., 2008; vanWormer & Perrson, 2010). However, women involved in the criminal justice system share similar life experiences that are disparately unique from their male counterparts (Bloom et al., 2005). For example, between 77% and 98% of incarcerated women have experienced trauma, interpersonal violence (IPV), and/or physical/sexual abuse (Lynch, Fritch, & Heath, 2012). According to data collected by the BJS (2006), 73% of women in prison reported a mental health problem and 60% of women reported using drugs just before their offense. In the month before incarceration, nearly 50% of incarcerated women were homeless (BJS, 2006). Women have a higher rate of substance abuse, physical and sexual violence, HIV, serious mental illness, and unemployment (Green et al., 2005; Lynch et al., 2012).

Furthermore, researchers have stressed that women's criminality develops through relationships with family members, significant others, or friends (Bloom et al., 2005; Covington, 2008). Family violence, trauma, and substance abuse contribute to women's criminality and shape their criminal trajectories (Bloom et al., 2005; Covington, 2008). This correlation between drug abuse and criminality suggests a strong role for treatment in crime prevention (vanWormer & Perrson, 2010).

Problem Statement

Over a 15-year period between 1996 and 2011, the number of women incarcerated in the United States increased nearly 45% (Spjeldnes, Jung, & Yamatani, 2014). In fact, women comprise one of the fastest growing populations of the criminal

justice system, even though there are more men involved in the criminal justice system (Golder et al, 2014). In 2013, more than 2 million women were arrested in the United States (Federal Bureau of Investigation, 2014). U.S. arrest trends reveal an increase of 48% in the female inmate population between 1999 and the end of 2013 (BJS, 2015). Between 2010 and 2013, the number of female inmates rose 10.9% (BJS, 2014).

Part of the issue is that previous researchers and program developers have focused on men because men have primarily comprised the majority of the incarcerated population; however, women follow different pathways into crime and have different rehabilitation needs (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014). These women often have substance abuse problems, histories of physical or sexual abuse as children and adults, and multiple physical and psychiatric difficulties (Bloom et al., 2005; Green et al., 2005; Lynch et al., 2012). When compared to their male counterparts, female substance abusers are more likely to engage in criminal activity (Golder et al., 2014).

Through their studies, researchers have uncovered substantial evidence that women, particularly those with histories of trauma, perform significantly better in gender-specific substance abuse treatment groups (Gallagher et al., 2015; Liang & Long, 2013; Powell et al., 2012; Saxena, Grella, & Messina, 2016). Researchers discovered this gender-specific approach improves outcomes for female drug court participants in at least one randomized controlled trial (Messina et al., 2012). Relatedly, a study of approximately 70 drug courts found that programs offering gender-specific services reduced criminal recidivism significantly more than those that did not (Carey et al.,

2012). Researchers postulated that social and legal advantages for pretrial defendants who successfully complete drug court include: (a) immediate access to substance abuse treatment, (b) case dismissal for misdemeanor charges, (c) placement on probation in lieu of incarceration for felony charges, and (d) an amended sentencing agreement that allows a reduction of a felony charge to a lesser misdemeanor (Marlowe, Hardin, & Fox, 2016; Pretrial Services Agency for the District of Columbia (PSA), 2017). Furthermore, individuals who successfully complete drug court programs avoid criminal conviction, achieve and maintain sobriety, and learn to engage in prosocial behaviors that decrease the probability of reoffending (Marlowe et al., 2016; PSA, 2017). Altogether, researchers concluded that drug courts are successful in reducing recidivism and substance use (Bello et al., 2019; Richman, Moore, Barrett, & Young, 2014).

The U.S. Justice Department's Bureau of Justice (2015) conducted a 5-year study that tracked individuals released from state correctional facilities in 2005 across 30 states. According to the report, 5% of offenders released from custody in 2012 returned to federal prison within 1 year (BJS, 2015). Significant findings for postrelease programming readily exists; yet, relatively little research has been conducted on gender-specific substance abuse programming for women in drug court programs. Just the same, research findings frequently lack demographic considerations in relation to the success of women completing a coed pretrial drug court diversion program. While researchers have studied the increase of women entering the criminal justice system, the predictive nature of age, educational level, marital status, violent criminal history, and mental health problems in relation to completion of a coed pretrial drug court diversion program has not

been addressed. Given such, further research is warranted in relation to the success of these women completing a coed pretrial drug court diversion program, which could help examine the predictive nature of age, educational level, marital status, violent criminal history, and mental health problems as well as address the growing number of women in the criminal justice system (Bello et al., 2019; BJS, 2014; Golder et al., 2014).

Purpose of Study

Historically, most studies in criminology focus on men even though research shows women have different criminal trajectories and treatment needs (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014). The purpose of this quantitative correlational study was to examine female defendants who have a history of violent crime and mental health problems and the factors that contribute to incompleteness for women participating in a coed pretrial drug court diversion program. The results from this research can influence social change because treatment providers can use them to develop curricula that target specific issues that encumber this subpopulation. Additionally, when provided appropriate behavioral health services, women are less likely to reoffend (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014).

With the implementation of gender-specific programming, women can receive more effective substance abuse treatment in drug court programs nationwide. The sooner effective intervention is applied, the sooner recidivism is reduced, allowing for fewer offenses committed by the growing female offender population. Moreover, effective services provided to female offenders experiencing behavioral health issues would increase their chances of attaining skills to support themselves, provide for their families,

and stop the cycle of reentering the criminal justice system through the same trajectories to criminal behavior.

Significance

With this study, I attempted to show the statistical relationship of the factors that impede female participants from successful completion of coed drug court programs. Researchers have previously examined criminal pathways and best practices for drug treatment for male populations. In their study of women and crime, researchers have commonly relied on subjective narrative accounts to explain why women became involved in the criminal justice system (Wattanaporn & Holdfreter, 2014). While most participants in adult drug courts are male, this fact has various repercussions associated with treatment appropriateness and client needs for women (Powell, 2013). In this study, I examined drug court incompletions for women with mental illness and violent crime histories along with their demographic characteristics. By increasing knowledge in this area, criminal justice agencies and drug treatment vendors can ensure they provide effective gender-specific programming to women. This would increase the chances of breaking the cycle of victimization and end the cyclical pathway to the criminal justice system. Furthermore, the results from this study will be used to promote trauma awareness in drug treatment programs and provide insight for procuring federal and state funding for gender-specific programming.

Research Questions and Hypotheses

I designed this study to determine whether drug court completion for female drug court participants who have a violent criminal history, substance use disorder, and/or

mental health problems is adversely affected by these behavioral health problems. I also examined the impact of socio-demographic factors on drug court completion for this population. The following research questions and hypotheses guided this research:

RQ1: To what extent is there a significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women?

H₀₁: There is no statistically significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women.

H₁₁: There is a statistically significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women.

RQ2: To what extent is there a relationship between violent criminal history and the likelihood of drug court completion for women?

H₀₂: There is no statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

H₁₂: There is a statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

RQ3: To what extent is there a relationship between a history of mental health problems and the likelihood of drug court completion for women?

*H*₀₃: There is no statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

*H*₁₃: There is a statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

Theoretical Framework

Trauma theory was used as the theoretical framework in this study. Trauma theory suggests that experiencing a past traumatic event affects an individual's response to future life events (Lynch et al., 2012; Messina et al., 2012). Trauma results from adverse life experiences that overpower an individual's ability to manage and to adapt positively to a threat (Van der Kolk, Pelcovitz, Roth, & Mandel, 1996). Herman (1992) believed trauma significantly interrupts an individual's physiological functioning causing unpredictable emotions, cognitive difficulty, and disturbances in memory. The implication of trauma exposure over time characterizes a mixture of the experience along with maladaptive beliefs and feelings it produces (Herman, 1992). Lieberman and Van Horn (2008) asserted that individuals who experience traumatic events and situations experience feelings of lack of self-control, hopelessness, and trepidation. Messina et al. (2012) highlighted the correlation between adverse relationships and criminality on women, which aligns with the study.

Incarcerated women experience IPV and mental health problems at higher rates than their male counterparts (Lynch et al., 2012). These women often have substance

abuse problems, histories of physical or sexual abuse as children and adults, and multiple physical and psychiatric difficulties (Bloom et al., 2005; Green et al., 2005; Lynch et al., 2012). Best practices for treating women involved in the criminal justice system include addressing causes of trauma to enhance women's treatment outcomes (Bloom et al., 2005; Messina et al., 2012). Women had experiences that are more favorable in gender-responsive treatment groups, performed better while in treatments, and experienced a decrease in symptoms related to PTSD (Messina et al., 2012). Trauma theory is consistent with the philosophical grounds of the study to examine women with a history of mental health problems and incidents of violent crime in a coed pretrial drug court diversion program.

Nature of the Study

In this study, I employed a quantitative methodology and correlational design using secondary archival data to examine the relationship between a history of violent criminal history and mental health problems and successful completion of a coed pretrial drug court program for women. Correlational research designs use the correlational statistical test to describe and measure the degree of association between two or more variables (Creswell, 2014). Saxena et al. (2016) conducted an analysis of female offenders who received substance abuse treatment and found that the greatest threat to addiction recovery exists in women who experienced victimization or have trauma histories. When women receive substance use treatment that involves addressing traumatic events and interpersonal conflicts, they fare better in treatment programs and are less likely to reengage in criminal behaviors (Covington et al., 2008; Messina et al.,

2012; Saxena et al., 2016). I conducted a logistic regression analysis in this study to examine if age, education level, marital status, violent criminal history, and mental health history increase or decrease the likelihood of program completion for female defendants while in a coed drug court program.

Definition of Terms

Behavioral health issues: A comprehensive expression used to represent mental health and/or substance use problems for which an individual seeks prevention, intervention, and treatment services (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015b). As referenced in this study, the expression behavioral health issues is interchangeable with mental health issues/problems.

Defendant: An adult (i.e., 18 years of age and older) charged with a crime in the DC Superior Court or the U.S. District Court for the District of Columbia (PSA, 2017).

Gender-responsive: Bloom et al. (2004) defined this as “creating an environment through site selection, staff selection, program development, content, and material that reflects an understanding of the realities of the lives of women and that addresses and responds to their strengths and challenges” (p. 42).

Recovery: Abstinence from alcohol and/or drug usage. In 2012, the SAMHSA (2015a) redefined recovery for individuals with mental or substance use disorders as “a process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential” (para. 2).

Substance use disorder: The recurring usage of alcohol and/or drugs (including illicit drugs and prescription/over-the-counter medications) that produces cognitive,

behavioral, and physiological symptoms resulting in major impairment or distress and failure to fulfill important obligations at work, school, or home (American Psychiatric Association, 2013; SAMHSA, 2015b). The behavior manifests despite harmful consequences (American Psychiatric Association, 2013). Substance use disorder, as used in this study, was exchangeable with addiction.

Violent criminal history: Any arrest, with or without a conviction, for criminal offenses that involve weapons, drugs, or acts of violence (PSA, 2017).

Assumptions

The main assumptions of this study involved the use of secondary archival data and self-reported participant responses during assessment. I assumed the recorders followed protocol and correctly entered all data in the data set. Second, I assumed the archived data were accurate and valid. The final assumption was that participants met the study criteria of having a violent criminal history and mental health issues.

Limitations

The use of secondary archival data presented limitations to generalizability and transferability. The sample consisted of female participants in the Washington, DC Metropolitan area, which does not reflect drug court programs in other jurisdictions. What is more, unlike traditional diversion programs that require a guilty plea to participate, the pretrial drug court in this study allowed participation before conviction. African American women primarily comprised the sample population, limiting the transferability of the findings to men and other nationalities.

Scope and Delimitations

The scope of this study was to examine what independent variables (i.e., history of violent criminality, substance use disorder and/or mental health problems, age, education level, and marital status) best predict drug court completion for women. The scope was also limited to secondary archival data from 2009 through 2014 and excludes current drug court participants. One delimitation of this study was that it was impossible to account for all the variables that may affect program completion. Another delimitation was the exclusion of male or transgender participants from the sample, which affects the generalizability of the results.

Summary

In Chapter 1, I introduced the purpose of this study by indicating that women respond favorably to gender-specific substance abuse treatment (Bloom et al., 2005; Messina et al., 2012). Specifically, drug treatment curricula that address trauma around abusive relationships (Messina et al., 2012) and mental illness yield higher program retention and effectively reduce recidivism (CITE). The focus on this particular population comes from my personal interactions as a female mental health professional working with male-only and female-only supervision teams within a federal probation office.

In Chapter 2, I will provide a systematic literature review and a detailed exploration of the theoretical constructs of trauma theory, in the criminal justice system milieu. Chapter 3 will include information regarding the sample, methodology, and data collection procedures used to conduct the study. The fourth chapter will reveal the

sample and data collection process, demographics of archival data, data management, and how the data were used to answer the research questions. Finally, in Chapter 5, I will provide a summary of the study and findings, an interpretation of the results, a discussion of the implications for positive change, and my recommendations for future study.

Chapter 2: Literature Review

Introduction

Drug courts are effective in reducing recidivism and substance use among its participants (Bello et al., 2019; Richman et al., 2014). However, most drug court programs offer mixed gender services that provide women-focused treatment within the content of its program (Evans, Pierce, & Hser, 2013). Still, researchers have shown that women perform significantly better in gender-specific substance abuse treatment groups, especially women with a history of trauma (Covington, Burke, Keaton, & Norcott, 2008; Evans et al., 2013; Gallagher et al., 2015; Liang & Long, 2013; Neale, Tompkins, Marshall, Treloar, & Strang, 2018; Powell et al., 2012; Saxena et al., 2016). Messina et al. (2012) suggested this approach be used when providing substance abuse treatment to enhance results for female drug court participants.

Most women in the criminal justice system have experienced psychological distress, substance use, and some form of victimization in their lifetimes (Covington et al., 2008; Golder, Engstrom, Hall, Higgins, & Logan, 2015; Saxena et al., 2016). Among detained females, high levels of posttraumatic disorder persist (Golder et al., 2015). While many people exposed to trauma demonstrate few or no lingering symptoms, individuals who have experienced repeated or multiple traumas are more likely to exhibit substance abuse, mental illness, and health problems (Grella, Lovinger, & Warda, 2013; SAMHSA, 2015a). For instance, the National Survey on Drug Use and Health's report on behavioral health trends in the United States revealed that in 2014, roughly 7.9 million adults aged 18 or older had a co-occurring disorder in the past year (Center for

Behavioral Health Statistics and Quality, 2015). Moreover, how an individual engages in major life areas as well as treatment can be significantly affected by trauma (SAMHSA, 2014a). According to the World Health Organization (2014), women are also affected by IPV and risky sexual behavior because of the drinking problems and drinking behavior of male partners.

In this chapter, I review literature and research (i.e., current and seminal) related to women with a prevalence of substance abuse in conjunction with trauma histories and mental health problems. The chapter also includes research on contributing factors to women's success in substance abuse treatment, specifically those receiving treatment in the criminal justice system. This review was a synthesis of findings from the literature on how women in drug court programs with histories of trauma and abuse may be affected by participation in coed substance abuse treatment. For instance, women in the criminal justice system necessitate specialized treatment that includes trauma-informed interventions that are provided in a safe setting where participants can share their histories of substance use and abuse without scrutiny (Bloom et al., 2003; Covington, 2008; Saxena et al., 2014). Saxena et al. (2014) found that women with trauma histories who participated in gender-responsive treatment showed reduced substance use and depressive symptoms. Meanwhile, women in their study who received standard treatment showed an increased chance of substance use and depression (Saxena et al., 2014). As such, I organized the literature review according to the factors that impact these women. I also discuss trauma theory as it relates to women and their involvement in the criminal justice system.

Literature Search Strategy

I used several electronic and publication sources to conduct the online literature review for this study. These sources included Google Scholar, Walden University Library, and the World Wide Web. I queried the following databases: Criminal Justice Periodicals, Education, ERIC, Expanded Academic ASAP, HEALTH Sciences: A full text collection, Periodical Science Direct, PsychARTICLES, PsychINFO, ProQuest Criminal Justice, ProQuest Central, PUBMed, Sage Premier, and SocINDEX. I expanded this search to further include abstracts, dissertations, and theses (in the ProQuest Dissertations and Dissertations and Theses at Walden University databases) to gain an exhaustive understanding of the most current scholarly positions on subject matter.

I used the following keywords, both singularly and in combination, to identify salient literature on my topics of interest: *drug court treatment, pretrial drug court diversion, gender responsive, women and substance abuse, justice involved women, trauma and women, violent crime and women, mental health, behavioral health, trauma theory, gendered pathways perspective, and feminist pathways perspective*. In this review of the literature, I also sparingly and strategically used some articles, books, and documents published earlier than the recommended 5-year range. Online information centers, such as the Bureau of Justice Assistance (BJA) and the SAMHSA, aided the compilation of statistical data.

Theoretical Framework

In this study, I used trauma theory as the theoretical framework. The current literature on the link between women, substance abuse, and criminality has been understood through the application of a trauma perspective (Salisbury & Van Voorhis, 2009). This framework was applied to inform the variables in the study (i.e., violent criminal history, mental health problems, age, education level, and marital status). In the following subsections, I provide further justification for why trauma theory was incorporated in the theoretical framework of this study.

An individual's exposure to trauma can take place as a single, recurring, or chronic event (Covington, 2008; Lynch et al., 2012; Messina et al., 2012). Trauma adversely impacts an individual's thoughts, emotions, and physical wellbeing, and has lasting effects on a person over their lifetime (Lynch et al., 2012; Messina et al., 2012). Covington (2008) suggested women who have histories of trauma often do not identify trauma as their primary complaint when seeking treatment. Instead, they may exhibit somatic symptoms such as aches and pains, or report feeling depressed, hopelessness, or anxious (Lieberman & Van Horn, 2008).

Equally important, Lynch et al. (2012) postulated that incarcerated women experience IPV and mental health problems at higher rates than their male counterparts. These women often have substance abuse problems, histories of physical or sexual abuse as children and adults, and multiple physical and psychiatric difficulties (Bloom et al., 2005; Green et al., 2005; Lynch et al., 2012). Best practices for treating women involved in the criminal justice system include addressing causes of trauma to enhance women's

treatment outcomes (Bloom et al., 2005; Messina et al., 2012). For this reason, women had experiences that are more favorable in gender-responsive treatment groups (Messina et al., 2012), performed better while in treatments (Evans et al., 2013; Neale et al., 2018), and experienced a decrease in symptoms related to PTSD. Trauma theory is consistent with the philosophical grounds of this study to examine women with a history of mental health problems and violent criminal history in a coed pretrial drug court diversion program.

What is Trauma?

Trauma is defined as experiences that result in severe physical and psychological reactions to stress (SAMHSA, 2014a). The SAMHSA (2014a) devised a multidisciplinary concept of trauma for use in the behavioral health field:

Trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being. (p. 7)

For this reason, there is a direct correlation between PTSD and trauma. More specifically, PTSD is a mental disorder in which the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* diagnostic criteria defined as a traumatic stress reaction that develops in response to a significant trauma (APA, 2013). The *DSM-5* (APA], 2013) defined a traumatic event within PTSD criteria (i.e., Criterion A) as “exposure to actual or threatened death, serious injury, or sexual violence” (p. 271). Consistent with the *DSM-5* (APA, 2013), individuals may directly experience or observe

the trauma, hear of a traumatic event of a close loved one or companion, or repeatedly hear of or see trauma (e.g., occupational exposure as a first responder, emergency medical technicians, or police officer). Trauma can take many forms, such as emotional, sexual, or physical abuse; abandonment (particularly for young children); witnessing violence; combat/war; natural disasters; IPV; and assault (APA, 2013). Comparably, the effects of traumatic victimization often result in PTSD (Covington, 2008).

One or more intrusion symptoms associated with the event also exists, including reexperiencing symptoms that cause current unpleasant memories of the event (APA, 2013; National Institute of Mental Health, 2016). In this case, interrupted sleep, distressing dreams, nightmares, and flashbacks may occur (APA, 2013). Another symptom is avoiding stimuli associated with the trauma, involving efforts to escape distressing memories; feelings; or external reminders, such as people, places, things, situations, and objects connected with the event (APA, 2013; National Institute of Mental Health, 2016). Adverse changes in mood and cognition may occur in addition to alterations in arousal and reactivity linked to the trauma (APA, 2013; National Institute of Mental Health, 2016). Individuals may become numb and isolated as well as lose interest in activities they once enjoyed, such as spending time with loved ones, hobbies, work, food, or even sex (Covington, 2008). In brief, trauma is a stressor that obscures a person's thoughts, emotions, beliefs, values, relationships, and behaviors (APA, 2013; Covington, 2008).

Trauma Theory

Trauma theory is informative in interpreting patterns of female continuance in criminal behavior (Salisbury & Van Voorhis, 2009). Literature on women, trauma, and crime provides a theoretical perspective of how trauma affects an individual's life and a broad roadmap of how therapeutic treatment interventions should ensue. Researchers have found that women who seek drug treatment often do not label their trauma history as the primary problem (SAMHSA, 2014a). For instance, their symptomology may include mental disorders, such as depression or anxiety (SAMHSA, 2014a). They may also exhibit a range of physical complaints, like headaches, muscle aches, or abdominal cramps, but seldom see the nexus between previous abuse and their current health problems (SAMHSA, 2014a). Researchers have begun incorporating trauma theory to explain stress, psychopathology, and coping for women offenders (Baker et al., 2016). Trauma theory recognizes the vulnerabilities of individuals with histories of sexual and physical abuse (Baker et al., 2016).

SAMHSA (2014b) explored the pervasiveness of physical and sexual abuse among women receiving public behavioral health services and brought to light the revictimization this population of women experienced in residential or inpatient treatment settings using isolation and restraint techniques. In the late 1990s and early 2000s, experts began to vocalize the importance of an organizational framework in therapeutic interventions that is designed for women who have experienced significant traumatic life events (Bloom et al., 2003; Bloom et al., 2005; Fallot & Harris, 2002; Herman, 1992; Jennings, 2004). This was the emergence of trauma-informed care.

Trauma-informed care is a theoretical approach that intentionally addresses the multiple domains of functioning impacted by exposure to severe, multiple, and prolonged traumatic interpersonal experiences (Bloom et al., 2003; Bloom et al., 2005; Fallot & Harris, 2002; Jennings, 2004). Key elements of this approach are realizing the prevalence and impact of trauma on individuals receiving behavioral health services and incorporating practices founded on this knowledge (Bloom et al., 2003; Bloom et al., 2005; Fallot & Harris, 2002; Herman, 1992; Jennings, 2004). This approach focuses on providing therapeutic services by first seeking to understand the individual and their behavior by concentrating on what has happened to the individual as opposed to what is wrong with them (Bloom et al., 2003; Bloom et al., 2005; Jennings, 2004). Specifically, an effective methodology for trauma-informed treatment with women encompasses observing social constructs unique to the characteristics of both men and women through learned behaviors, including social rules, culturally defined roles, customs, and relationships (Bloom et al., 2005; SAMHSA, 2014b; World Health Organization [WHO], 2016).

Then in 1998, SAMHSA sponsored the *Women, Co-Occurring Disorders and Violence Study*, one of the first large-scale cooperative studies to explore effective treatment models for helping women with co-occurring disorders, and a history of physical and/or sexual abuse (Wilson, Pence, & Conradi, 2013). The study generated a framework of principles for providers to be mindful of their own policies and procedures that might place women in physical and psychological danger, add new traumatic experiences, or unnecessarily invoke memories of past traumatic events (Wilson et al.,

2013). The trauma-informed care model is effective for individuals with a history of trauma (Bloom et al., 2003; Bloom et al., 2005; Jennings, 2004). Although trauma experienced in formative years in childhood may be central to their condition and healing, it is often overlooked in public behavioral health settings (Bloom et al., 2003; Bloom et al., 2005; Jennings, 2004 as stated by Cusack et al., 2007). Many of these individuals have developed extreme coping strategies, in childhood, adolescence and as adults, to manage the impacts of overwhelming traumatic stress.

Women and Crime

Criminology is the scientific analysis of crime and its social impact, its causes, responses by law enforcement, and methods of prevention (Edney, 2006). Two major schools of criminology are classical, which assumes that people make a conscience decision to commit crime (Edney, 2006), and positivist, which theorizes extrinsic factors such as biological, social, and psychological cause crime (Cullen & Agnew, 2002; Edney, 2006; Lombroso & Ferrero, 1895). Founded by Cesare Lombroso, positivist theory of crime suggests that the causal sources of crime are predetermined by biological, social, and psychological factors (Lombroso & Ferrero, 1895). Highly influenced by Darwin's theory of evolution, positivist theory emphasizes diagnosis and treatment versus punishment and focuses attention on the person, not the criminal act (Cullen & Agnew, 2002). While each theory seeks to explain criminology, deterrence theory neglects offenders' internal influences on crime. Therefore, positivist theory appropriately explains why people commit crime, particularly drug-related crime. For example, offenders arrested for drug-related offenses who have substance abuse issues would be

deferred to drug-court, referred to drug treatment programs in lieu of being sentenced to incarceration, or placed in jail-based drug treatment programs.

What is more, criminology has several subcategories, including feminist criminology, which is the study of women and crime. For decades, feminists have postulated various theoretical perspectives to explain female criminality. Institutional marginalization, racism, and sexism, along with unhealthy interpersonal relationships, and economic poverty have all been researched to explain how women become entangled in crime compared to their male counterparts (Broidy & Agnew, 1997; Chesney-Lind, 1986, 1997; Daly & Chesney-Lind, 1988; Owen, 1998; Ritchie, 2004). Bernard (2013) and Nowacki (2017) suggested marginalized women who commit crimes are more likely to be young, underprivileged, Nonwhite, high school dropouts, single mothers, un-/underemployed and educated, with a history of substance abuse, familial violence, and sexual abuse. Additional theoretical frameworks noted throughout the research include Cesare Lombroso's positivist theory that suggests the causal sources of crime are caused or predetermined by biological, social, and psychological factors (Edney, 2006). This perspective would apply the same causal sources to (illegal) drug abuse because it is a crime.

Researchers indicate that pathways to crime may be gendered in that factors such as mental health and trauma may be particularly important to women's and girls' offending behavior (Kruttschnitt, 2016; Lynch et al., 2017; Salisbury & Van Voorhis, 2009). These norms and socialization can affect women's susceptibility to medical conditions and overall wellbeing (WHO, 2016). 'Feminist pathway research' also known

as ‘gendered pathways research’ suggests that life histories of women are beleaguered with physical and sexual violence, poverty, and drug abuse (Nuytiens & Christiaens, 2016; Salisbury & Van Voorhis, 2009). In a study on the gender perceptions of female criminality in Ganzhou, China and Nashville, Tennessee, researchers found that both Chinese and American participants identified retaliation in unhealthy relationships as a primary contributing factor why women commit crime (Montgomery & Zeng, 2016). Chinese respondents considered pleasure-seeking activities as the most important reason women commit crime, while U.S. participants identified drugs as the most critical factor (Montgomery & Zeng, 2016).

The focus is on women’s lifetime histories as an approach to derive connections between childhood and adult experiences and criminality (Bernard, 2013; Nowacki, 2017; Nuytiens & Christiaens, 2016). As well, Daly’s (1992) gendered pathways perspective identifies realities that are distinctive to the female experience across biological, psychological, and social domains. This outlook has implications for criminological explanation for female offending and criminal justice interventions for women (Bernard, 2013; Nowacki, 2017; Nuytiens & Christiaens, 2016).

Female Defendants and Substance Use

Historically, it was common to keep women’s consumption of drugs or alcohol secret (Covington, 1999). It was highly unusual to discuss sexual abuse, incest, interpersonal violence, and women’s substance abuse (Bloom et al., 2003, 2005; Covington, 1999). Moreover, because prohibition laws made it illegal in the United States to depict movie scenes or advertising with a woman drinking until the 1950s,

Covington (1999) posited that this historic lack of acknowledgement has encumbered detection of women's distinctive needs in recovery. By 1970, only 28% of the several hundred English-language alcoholism studies in existence specifically focused on the female sex (Covington, 1999). Before the 1990s, research on substance use treatment was male-based or concentrated on mixed-gender populations, with little emphasis on gender disparities or women exclusively (Bloom et al., 2003, 2005; Covington, 1999; Kruttschnitt, 2016; Lynch et al., 2017). Consequently, it was not apparent if substance use treatments found effective for men could be success for their female counterparts (Covington, 1999).

Individuals may experience distinctive issues around substance use (National Institute on Drug Abuse, 2016), because of both sex differences from being genetically female or male, and gender based on culturally defined roles for men and women (Office of Research on Women's Health, 2015). Equally important, sex and gender can also interact with each other contributing to complex differences between women and men (National Institute on Drug Abuse, 2016). Roughly, 32% of national drug treatment programs provide specialty treatment for women while only 13% tailor services specifically for pregnant and women with children (Evans et al., 2013). These specialty programs tend to treat women exclusively compared to mixed gender programs, which treat both men and women within the same group sessions (Evans et al., 2013). However, some mixed gender settings establish women-focused treatment within the content of its program (Evans et al., 2013).

Kissin, Tang, Campbell, Claus, and Orwin (2014) suggested crime reduction is a long-term benefit of gender-specific programming for women involved in the criminal justice system. In a quantitative measure of gender-specific drug treatment benefits on arrest outcomes, authors sampled participants in the state of Washington across 13 mixed-gender short-term residential drug treatment programs (Kissin, Tang, Campbell, Claus, & Orwin, 2014). The sample size comprised 5,109 female and 9,838 male program participants over a four-year time span, and only participants who were 185% below poverty that qualified for public funding were examined (Kissin et al., 2014). The results demonstrated that women in more gender-specific substance abuse programs had a 29% lower risk of drug-related arrests (Kissin et al., 2014). Additionally, from 2 years before to 2 years after treatment, more gender-specific program participants who also finished treatment had a significant decline in arrests overall (Kissin et al., 2014). Data from this study explain the long-term benefit of gender-specific programming on crime reduction.

Similarly, Nuytiens and Christiaens (2016) attempted to understand women's pathways to crime in Belgium since the bulk of research is based in the U.S. The authors conducted autobiographical interviews in four separate prisons in Belgium with 41 incarcerated women ages 20 to 69 years old, with a mean average of 39.8 years (Nuytiens & Christiaens, 2016). The research questions for this study centered on the participant's life before incarceration in which three themes emerged: low self-esteem, mental health problems, and substance abuse (Nuytiens & Christiaens, 2016).

Study participants reported troubled relationships with parents, significant others, children, and associates (Nuytiens & Christiaens, 2016). Interestingly enough, several of the participants who had children were living apart from them due to the participants' drug abuse or behavioral difficulties with their child (Nuytiens & Christiaens, 2016). Nuytiens and Christiaens suggested childhood trauma is not exclusively predictive of a woman's pathway into crime. Women who experienced trauma in adulthood were just as likely to engage in criminality as women with no childhood trauma (Nuytiens & Christiaens, 2016). Nuytiens and Christiaens suggested women require empowerment interventions to combat relational susceptibilities and abusive relationships to foster healthy relationships, reduce crime, and promote sobriety.

Similarly, Messina, Calhoun, and Warda (2012) posited that female participants in gender-responsive groups have more favorable experiences in treatment, performed better while in treatment, and experienced a decrease in symptoms related to PTSD. In their attempt to measure participant response to gender-responsive treatment groups, the authors questioned if targeting PTSD specifically would enhance women's treatment outcomes. Messina et al. compared four drug court programs in San Diego County, California for 94 women offenders during a 3-year experimental pilot study using bivariate and multivariate analyses. Researchers randomly assigned a standard mixed treatment group or a gender-responsive drug treatment group that employed a curriculum intended for and facilitated by women only (Messina et al., 2012).

The gender-responsive curriculum designed for justice-involved women, addressed four areas in the participant's lives including self, relationships, sexuality, and

spirituality through cognitive-behavioral techniques, psychoeducation, art therapy, and relational approaches (Messina et al., 2012). Researchers collected data at the beginning of treatment, during treatment, and 22 months after treatment commenced. Primary findings showed that participants in the gender responsive groups had more favorable experiences in treatment, performed better while in treatments, and experienced a decrease in symptoms related to PTSD (Messina et al., 2012). Their theoretical framework (trauma theory) suggested experiencing past traumatic events influences an individual's response to future life events. Messina et al. also highlighted the correlation between adverse relationships and criminality on women, which aligned with the research.

In an attempt to examine the long-term outcomes among drug dependent mothers treated in women-only versus mixed-gender programs, Evans et al. (2013) evaluated drug use outcomes across 43 drug treatment programs among a cohort of adult women with children between 2000 and 2002. In this prospective longitudinal study, researchers followed a sample of nearly 780 women with children from 13 counties in California for a 10-year period after completion of women-only compared to mixed-gender substance abuse treatment (Evans et al., 2013). The posttreatment analysis showed that mothers in the women-only refrained from drug use and rearrest, and were still alive (Evans et al., 2013). Furthermore, the likelihood of favorable outcomes increased by 44% for this group (Evans et al., 2013).

The authors argued that drug-dependent mothers risk bearing children with medical issues, missing prenatal care appointments, and involuntarily involving family

court with child custody issues compared to male counterparts (Evans et al., 2013). Of the intended participants, 54 were deceased (most from drug use) at the time of the 10-year mark with a mean age of 41.6 years at death (Evans et al., 2013). This research offered rare longitudinal data on the effects of women-only groups.

Fennessy and Huss (2013) noted little research exists regarding risk assessment tools that take into consideration race and ethnicity of justice-involved persons, particularly individuals on pretrial supervision. Using binary logistic regression, Fennessy and Huss analyzed data across 15 variables to determine the highest predictive factors associated with the success or failure of federal pretrial defendants on supervision within various ethnic groups: Black, Latino, Asian, and White. The authors (Fennessy & Huss, 2013) examined success against the variables: felony arrest, drug conviction, violent felony, pending felonies, age, gender, employed, residence in area, prior psychiatric treatment, substance abuse problem, education level, ethnicity, failure to appear, prior absconding, and prior escapes.

Overall, results indicated that “being male”, “younger age”, “being a minority”, “having a substance use problem”, “having at least one prior failure to appear”, “having one or more prior escapes”, and “failing to graduate from high school” altogether increased the odds of a supervision failure (Fennessy & Huss, 2013, p. 49). It is worth noting that only 724 of the 4,449 defendants examined in the study were women. While the authors did not look at gender, the results provided implications for criminal justice agencies to invest in risk assessment instruments that identify the risks and specifics

needs of their defendant population for improved supervision and services (Fennessy & Huss, 2013).

Gobeil, Blanchette, and Stewart (2016) conducted a meta-analytic review of the effectiveness of gender-informed versus gender-neutral correctional interventions for adult women. Gobeil et al. evaluated 37 research studies issued from 2000 to 2013 of almost 22,000 justice-involved women. The authors categorized the existence of the gender-informed variable on a three-point scale from 1 (*no evidence*) to 3 (*clear evidence*). The results showed that decreased recidivism considerably correlated to gender-informed interventions (Gobeil et al., 2016). Correctional programming directed at substance abuse risk factors for women is effective in reducing recidivism, particularly when coupled with aftercare (Gobeil et al., 2016). Drawbacks of this research design include variances in treatment program curricula (i.e., curriculum selection, staff training and adherence to curriculum), which could have affected the results. As well, researchers could not control for characteristics of participants (Gobeil et al., 2016). Equally important is that the majority of the selected studies was published before 2012 and may not reflect current trends in criminal justice and women. All in all, the study demonstrated how justice-involved women respond positively to treatment programs shown to target salient factors that lead them to crime (Gobeil et al., 2016).

Saxena et al. (2016) conducted a secondary data analysis of samples from three independent studies of justice-involved women in California with trauma histories to evaluate the moderating effects of severity of drug use, psychiatric status, and self-efficacy on treatment modality. The subjects either participated in substance abuse

treatment while incarcerated, in a community-based aftercare setting, or both through continuing care (Saxena et al., 2016). Primary findings revealed that the women with more trauma exposure fared better than those who received one treatment type (Saxena et al., 2016). The diversity of the sample size used in this study contributes to a greater statistical power yet at the same time, it could be argued that prison populations vary from prison to prison. This study illustrated the benefits of gender-specific programming while incarcerated and during postrelease for justice-involved women with trauma and abuse histories (Saxena et al., 2016).

Trauma and Violence

Trauma is a defining, reoccurring theme in the lives of individuals with substance abuse and mental health disorders (Tompkins & Neale, 2018). Treatment programs often neglect to address the trauma of clients with co-occurring disorders (Tompkins & Neale, 2018). The WHO (2016) publicized that physical and/or sexual abuse predominantly perpetrated by an intimate partner affects one in three women under 50 across the globe. Research overwhelming shows that the impact of lifelong violence on women's health in has been linked to substance abuse, depression, anxiety, physical injuries, self-harm, suicide, sexually transmitted diseases, HIV, and unwanted pregnancies (Baker, Broweln, Wilcox, Overstreet, & Arora, 2016; Tompkins & Neale, 2018; WHO, 2016).

For instance, the landmark Adverse Childhood Experienced study revealed the long-term effects of trauma of more than 17,000 men and women (Felitti et al., 1998). The Adverse Childhood Experienced study underscored significant correlations between childhood trauma and long-term adverse health outcomes and social effects over the

lifespan, including addiction (Felitti et al., 1998). Specifically, researchers sought to determine why participants registered in a weight-loss program for morbidly obese adults quit the program and regained weight just as they began to successfully lose weight (Felitti et al., 1998). They concluded that a history of childhood sexual and other cumulative traumas were contributing factors for participants dropping out of the weight-loss program (Felitti et al., 1998). In fact, Felitti et al. posited that the weight was a function of the symptom (i.e., coping, protecting, comforting).

With this in mind, long-term effects associated with childhood trauma include impulsivity, low self-esteem, poor executive functioning, and emotion regulation (Baker et al., 2016). Furthermore, individuals who have encountered one or more adverse childhood trauma have a heightened risk for experiencing multiple, cumulative traumas that are believed to promote detrimental behaviors such as substance abuse and unsafe sex (Baker et al., 2016; Tompkins & Neale, 2018).

The majority of male and female participants in substance abuse treatment programs have lifetime histories of trauma and abuse (Danielson, Amstadter, Dangelmaier, Resnick, Saunders, & Kilpatrick, 2009; Giordano et al., 2016; Golder, et al., 2015; Khoury, Tang, Bradley Cubells, & Ressler, 2010; Saxena et al., 2016). Giordano et al. (2016) examined trauma treatment in a substance abuse treatment program and discovered that 84% of their coed sample population endured at least one traumatic event in their life. However, gender differences exist in trauma-related risk factors for alcohol and substance abuse (Giordano et al., 2016).

For instance, in a longitudinal study, researchers analyzed the relationship between early trauma exposure and substance abuse among 1,753 young adults who participated in the initial 1995 National Survey of Adolescents in the United States (Danielson et al., 2009). The 7 to 8-year follow-up to the original research revealed that young women experienced increased risk for substance use disorders after exposure to a traumatic occurrence unlike young men (Danielson et al., 2009). Conceivably traumatic events such as physical abuse, sexual assault, and PTSD, consistently have been proven causal factors that increase risk for substance use disorders (Danielson et al., 2009; Giordano et al., 2016; Khoury et al., 2010; Saxena et al., 2016). This exposure causes susceptibility to psychiatric problems, including schizophrenia, depression, bipolar disorder, PTSD, and substance abuse (Covington et al., 2008; Golder et al., 2015; Khoury et al., 2010; Saxena et al., 2016). Women with substance abuse problems may require different therapeutic treatment interventions than those with co-occurring substance abuse, mental illness, and trauma (Kruttschnitt, 2016; Lynch et al., 2017).

Women and Violent Crimes

Researchers have placed little focus on women in the United States who commit violent crimes (Bell, 2017; Venäläinen, 2017). Just the same, little research exists on program effectiveness in decreasing violence committed by women in the United States (Bell, 2017; Stewart & Gobeil, 2015). Yet, Stewart and Gobeil (2015) found that alcohol abuse is linked to women who commit crimes of violence. Compared to men, women often commit violent offenses against persons with whom they have interpersonal relationships, such as parents, spouses, boyfriends, and children (Venäläinen, 2017;

Wesley & Dewey, 2018). Therefore, they are more likely to commit a violent offense at home (Poteyeva & Leigey, 2018).

Researchers found that women primarily committed violent crimes during the commission of another crime, for example robbery or theft (Golder et al., 2015; WHO, 2016). Women who commit violent crimes were often economically deprived and homeless, and found to have prior psychiatric hospitalizations and less education (Poteyeva & Leigey, 2018; Stewart & Gobeil, 2015). They were also more likely to have children (Stewart & Gobeil, 2015). Researchers reported that serious mental health issues are risk factors linked to women who commit violent offenses (Stewart & Gobeil, 2015). These women were also more likely to have increased instances of physical, psychological, and sexual abuse, both in childhood and adulthood (Poteyeva & Leigey, 2018).

Sexual, Physical, and Psychological Abuse

Abuse may involve manipulation, control, threats, and intimidation. Girls are more likely to suffer sexual abuse and are increasingly using alcohol and tobacco compared to boys (WHO, 2016). Women who have substance use disorders are more likely to have been prone to domestic violence or witnessed violence as a child and have been physically or sexually traumatized (Golder et al., 2015; SAMHSA, 2009). Along these lines, women, abused as children, are more likely to report substance use disorders as adults (Golder et al., 2015; SAMHSA, 2009). Research conducted by Meade, Jennings, Gover, and Richards (2017) suggested that the effects of childhood abuse and future violence manifests differently based on gender. Past research in this area suggests

that the effects of childhood abuse mirror symptoms of mental illness, in that girls are more likely to internalize their trauma (Golder et al., 2015; WHO, 2016) and become involved with partners who victimize them, whereas boys are more likely to express their trauma by committing violence (WHO, 2016). Just the same, women subjected to partner violence are two times as likely to have depression and nearly twice as likely to have a substance use disorder (WHO, 2016).

Women offenders who were released from incarceration who suffered from trauma or mental health problems responded favorably to treatment after they reconciled problems from their past (Salina, Lesondak, Razzano, & Parenti, 2011; Shantz, Kilty, & Frigon, 2009). Long-term implications include repeated victimization and residing in very stressful situations that result in self-medicating with drug to alleviate symptoms associated with trauma (Salina et al., 2011). Thus, collective factors that encourage a woman to stay in treatment include supportive therapy, a collaborative therapeutic alliance, onsite childcare and children services, and other integrated and comprehensive treatment services (Golder et al., 2015; SAMHSA, 2014b).

The History of Drug Courts

In the mid-1980s during the height of the crack cocaine epidemic, drug courts appeared in response to the surge in drug-related crimes and the strain it placed on the criminal court system (BJA, 2009; Development Services Group [DSG], 2010; Marlowe, Hardin, & Fox, 2016). This War on Drugs movement of the 80s forged a huge spike in drug-related incarcerations, primarily of individuals with substance abuse problems (BJS,

2012). Lawmakers recognized the overwhelming tie between drug abuse and involvement in the criminal justice system (Lehman et al., 2012; Marlowe et al., 2016).

In an effort to address growing criminal dockets and expedite drug case processing, courts employed specialized court dockets (Bello et al., 2019; BJA, 2009; DSG, 2010; Richman et al., 2014). Nonetheless, these efforts did not address the multifarious issues underlying substance abuse and did little to curtail the flood of drug offenders entering the justice system, to rehabilitate drug offenders already in the system, or to reduce recidivism among offenders released into the community (DSG, 2010). In fact, by 1990 national spending on corrections exceeded \$26 billion (Marlowe et al., 2016). Researchers realized that 31% of all state-level convictions were for drug offenses and that state prison cost for low-level drug offenders exceeded \$1.2 billion annually (Marlowe et al., 2016). The result was a revolving door that cycled drug offenders into and out of the criminal justice system (BJA, 2009; DSG, 2010).

The first drug court opened in Miami-Dade County, Florida in 1989. The establishment of drug court sparked a revolution of specialty courts in the United States. Moreover, in 1992, Kalamazoo, Michigan opened the first women's drug court (Marlowe et al., 2016). By the mid-1990s, several specialty courts emerged in the U.S.: Community Court in 1993 in Brooklyn, New York; Driving While Intoxicated Court in 1995 in Doña Ana, New Mexico; Juvenile Drug Court in 1995 in Visalia, California; Family Drug Court in 1995 in Reno, Nevada; and Felony Domestic Violence Court in 1996 in Brooklyn, New York (Marlowe et al., 2016). The number of drug courts operating in U.S. states and territories increased from 2,734 in June 30, 2012 (National

Association of Drug Court Professionals, n.d.) to 3,057 by December 31, 2014 (Marlow et al., 2016). Despite the increasing number of drug courts, 62 drug courts closed in 2014 owing to a lack of funding, loss of political and judiciary interest, a shortage of referrals, and insufficient treatment resources (Marlow et al., 2016).

Unlike traditional criminal courts, drug courts recognize the role dependency on illicit substances plays in crime, particularly petty crimes or crimes committed while seeking illicit substances (Marlowe et al., 2016). As well, participation is voluntary. The drug court model comprises a special court docket formulated to handle cases involving non-violent offenders in an effort to reduce recidivism and substance use among the population (Marlow et al., 2016; Pretrial Services Agency for the District of Columbia [PSA], 2017). A dedicated judge along with case managers, substance abuse treatment providers, state attorney, and public defender, generally form the drug court team in this model (Marlow et al., 2016; Richman et al., 2014). In addition, the model increases the likelihood of successful habilitation through early, continuous, and intense judicially supervised substance use treatment (Marlow et al., 2016; Richman et al., 2014). Drug courts employ assertive case management, counseling, regular court appearances, frequent drug testing, therapeutic interventions, recovery-focused incentives, reasonable sanctions, and instant access to treatment and social service resources (Marlow et al., 2016; PSA, 2017; Richman et al., 2014). Overall, drug courts offer individuals the opportunity to become drug-free and participate in a variety of prosocial interventions that decrease the likelihood of future criminal behavior (Marlowe et al., 2016; PSA, 2017).

Participants in the DC Superior Court Drug Intervention Program (“Drug Court”) receive case dismissal while on pretrial supervision for misdemeanor cases or possible probation for felony cases after successfully completing drug court (PSA, 2017). The drug court team includes an assigned defense attorney who advises the court and advocates on behalf of the defendant in drug court matters (PSA, 2017). A clinical service specialist provides clinical oversight, supervision, and treatment recommendations, while a laboratory chemist provides interpretation for drug testing results and testifies during challenge hearings when drug test results are called into question (PSA, 2017). Finally, the drug court coordinator serves as the liaison between the court and the pretrial agency (PSA, 2017).

Notably the judge is the central figure of the drug court team. The judge’s presence and influence keeps participants engaged in treatment long enough to develop rapport through judicial incentives and sanctions (Marlowe et al., 2016; PSA, 2017). Just the same, the drug court judge holds participants accountable for their behavior throughout the program (Marlowe et al., 2016; PSA, 2017). The quality contact between with the drug court judge and a defendant, coupled with frequently held court hearings, has been long been identified as one of the most reliable variables determining of defendant success and is considered a best practice in a drug court program (Marlowe et al., 2016; PSA, 2017).

Treatment plays a key role in ending the cycle of substance use and reducing criminality (PSA, 2017). After all, the National Association of Drug Court Professionals (n.d.) reported 75% of graduates remain arrest-free for at least 2 years after completing

drug court. Critical elements of recovery include preventing recidivism and offering mental health treatment that addresses underlying issues (Nuytiens & Christiaens, 2016; PSA, 2017). Drug courts are effective in reducing recidivism and substance use among its participants (Bello et al., 2019; Marlowe et al., 2016; Richman et al., 2014). Research shows that women perform significantly better in gender-specific substance abuse treatment groups, especially with a history of trauma (Gallagher et al., 2015; Liang & Long, 2013; Powell et al., 2012; Saxena et al., 2016). Messina, Calhoun, and Warda (2012) posited this gendered approach to providing substance abuse treatment enhances results for female drug court participants.

States have commonly used drug courts as an alternative to incarceration for first-time and drug-involved offenders (Lindquist et al., 2009). Drug courts are designed to go beyond retributive punishment and focus on drug addiction and reintegrating offenders to the community (Lindquist et al., 2009). While originally created without a theoretical framework, Lindquist et al. (2009) referred to drug courts as a form of restorative justice that concentrates on the needs of the offenders, instead of merely punishing the offender, which research has proven futile (Bello et al., 2019).

Socio-Demographic Factors (Age, Education Level, and Marital Status)

In 2014, the National Drug Court Institute conducted its twice-annual survey of drug courts and problem-solving court activity in every state and U.S. territory (Marlowe et al., 2016). Using web-based data collection, researchers administered the survey to all 54 U.S. states and territories (Marlowe et al., 2016). With a response rate of 98% (the Virgin Islands did not reply), the survey revealed that women comprised roughly 32% of

drug court participants across the United States in 2014 (Marlow et al., 2016).

Researchers learned that even though female drug court participants had equal access to drug court participation, they had significantly lower graduation rates than male participants (Marlow et al., 2016). The average graduation rate for female drug court participants was 39%, compared to the total graduation rate of 58% (Marlowe et al., 2016). In spite of this, while actively enrolled in drug court programs, female participants gave birth to nearly 700 drug-free children (Marlowe et al., 2016).

Like women, African Americans and Latinos remarkably seem to be underrepresented in some drug courts relative to jail and prison populations, and graduate at considerably lower rates than those of Whites (Marlowe et al., 2016). Even though Whites and African Americans were the most prevalent drug court participants, Marlowe et al. reported that African Americans embodied only 17% of the group. The ratio of Latino drug court participants has remained steady at 10% since 2008; however, compared to both the public population and other criminal justice populations, Latinos continue to be relatively underrepresented in drug courts (Marlow et al). Scientists suggested this disparity could be explained by related differences in the arrest types and rates of the ethnic groups (Marlowe et al.). For instance, White arrestees may be more likely to have severe substance use problems that require drug court treatment than African Americans or Latinos (Marlowe et al., 2016). In comparison to all other populations in the criminal justice system, researchers discovered that African American participants were somewhat overrepresented in drug courts (Marlow et al., 2016).

Among the top issues in women's health are violence against women and getting older (WHO, 2016). Globally, older women have been found to have less access to or control over financial resources from being homemakers, and limited access to healthcare and social services resulting in a higher risk of abuse and overall poor health in comparison to their male counterparts (WHO, 2016). While it is the case that little research exists regarding women's marital status and criminology, still less than 50% of women in the criminal justice system have ever been married (Marlowe et al., 2016).

Golder et al. (2014) conducted a longitudinal study to measure substance use among 406 women on community supervision between 2010 and 2013. The researchers examined age, race, childhood/adulthood victimization, education level, current homelessness, and employment status as part of the study (Golder et al., 2014). In their study, Golder et al. (2014) found that nearly 30% of the women in their study had less than a high school diploma or a General Equivalency Diploma. Less than 30% of the women were employed and nearly 35% were homeless (Golder et al., 2014). Researchers showed that women who lack stable housing face an increased risk of recidivism (Bloom et al., 2003; Golder et al., 2014). Although women in the criminal justice system may have a high school or General Equivalency Diploma, they characteristically have limited vocational training or sporadic work histories (Bloom et al., 2003).

Literature reflects that drug court diversion programs provide criminal justice systems an economical option for managing high-risk, high-need populations with serious histories of criminal involvement, substance use disorders, and mental illness (Marlowe et al., 2016). They also posit that drug court diversion programs are nearly

twice effective in crime reduction for this special population (Marlow et al., 2016).

Outcomes improve significantly for female drug court participants when drug courts provide female-only treatment groups (Covington et al., 2008; Evans et al., 2013; Gallagher et al., 2015; Liang & Long, 2013; Powell et al., 2012; Saxena et al., 2016).

What is more, treatments that offer gender-specific services concentrating on topics such as refraining from unhealthy relationships, managing trauma-related symptoms, dealing with childcare obligations, and safeguarding against sexually transmitted diseases are proven effective with this population (Brown, Gilman, Goodman, Adler-Tapia, & Freng, 2015; Messina et al., 2012; Morse et al., 2014).

Summary

Chapter 2 consisted of a discussion on the link between women, substance abuse, and criminality through a trauma perspective. My study aimed to inform how women with histories of violent crime and abuse may be affected by participation in a coed pretrial drug court diversion program. Chapter 3 will provide the methodological framework used to solidify this research study. Chapter 3 also will contain a discussion on the sampling, data collection procedures, and the ethical considerations for the study.

Chapter 3: Research Method

Introduction

The purpose of this quantitative study was to address the limited information available about factors contributing to drug court completion rates for women with violent crime and mental health histories. Historically, most studies in criminology focus on men even though research has shown women have different criminal trajectories and treatment needs (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014). Another purpose was to explore the relationships among women, substance abuse, and criminality through a trauma perspective. In this study, I aimed to inform how women with histories of violent crime and abuse may be affected by participation in coed drug court substance abuse treatment.

In this chapter, I provide a rationale for choosing a quantitative methodological framework with a correlational research design. I employed a logistic regression model to examine potential predictive factors for the likelihood of program completion for female drug court participants. I review the general methods used to draw conclusions about the problem and theoretical reasons for using the stated methods. Chapter 3 also contains a discussion of the sampling, data collection procedures, and the ethical considerations for the study.

Research Design and Rationale

In this study, I used a convenience sample from secondary, archival data of women who participated in the Superior Court Drug Intervention Program (“Drug Court”) between January 1, 2009 and December 31, 2014. Johnston (2014) described

secondary data analysis as the analysis of existing data collected by someone else for another intent. The principle factor in secondary data analysis is addressing research questions through the application of a theoretical framework (Johnston, 2014).

Secondary data collection alleviates the financial liability and time constraints associated with primary data collection (Johnston, 2014; Tripathy, 2013). Analyzing secondary data allows researchers access to information over a greater time period with fewer risks to subjects, particularly vulnerable or inconvenient populations (Tripathy, 2013).

I used a quantitative approach with a logistic regression analysis for this study. Quantitative methods are ideal when attempting to identify variables that may affect the effectiveness of an intervention (Creswell, 2014). Specifically, quantitative methods helped answer the research questions in order to identify predictive factors of drug court completion for female participants. In this study, I examined and reported the relationships among nominal independent variables and their impact on the dependent variable. Considering the factors that lead to unsuccessful program completion of female drug court participants, I examined the following independent variables: history of violent crime and mental health problems. The dependent variable for the study was dichotomous (i.e., yes/no) program completion.

Although qualitative approaches are useful in identifying and characterizing human behavior through language, quantitative methodology is suitable for explaining or predicting relationships between two or more variables in order to test a theory (Creswell, 2014). Quantitative research is a scientific investigation that uses numerical data comprised of variables and analyzes with statistical procedures as a means to determine if

the predictive generalizations of a theory remain true or valid (Creswell, 2014). Even more, correlational research allows researchers to measure variables and assess the statistical relationship between pairs of variables (Streiner, 2005). A correlational design was appropriate for this study because I examined if there is a predictive relationship between two or more variables included in this study (Field, 2013; Streiner, 2005). Namely, I used logistic regression analysis to examine the relationship between demographic factors, including age, education level, and marital status, violent criminal history, and a history of mental illness, and the increased or decreased likelihood of drug court completion for women.

To examine the research questions, I constructed a logistic regression model to investigate if trauma and a history of mental health problems predict drug court completion for women. A logistic regression analysis identifies significant relationships in systems of dichotomous variables (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). This analysis is also appropriate when using one or more independent variables to predict a dichotomous dependent or outcome variable (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). In the case of this study, mental health, violent criminal history, and program completion were dichotomous variables in either “yes” or “no” form. Using a logistic regression, I determined if the explanatory variables of age, education level, and marital status are significant predictors of the increased or decreased likelihood of program completion for women. Logistic regression was suitable for this study to establish relationships among the independent variables of age, education level, marital status, violent criminal history, and mental health history.

Trauma theory suggests women involved in the criminal justice system have substance abuse problems, histories of physical or sexual abuse, and multiple physical and psychiatric difficulties (Lynch et al., 2012). As a central issue of the study, I examined if violent criminal history and mental health have a causal relationship to program completion. Therefore, it was necessary to conduct research on trauma and determine if a correlation exists between participants with histories of violent criminal history and mental illness and their likelihood of successfully completing drug court.

Previous research has shown best practices for treating women in the criminal justice system involves addressing causes of trauma (Bloom et al., 2005; Gobeil et al., 2016; Messina et al., 2012). Researchers have suggested that women who abuse substances have higher rates of childhood and adult physical and sexual abuse (Bloom et al., 2005; Kruttschnitt, 2016; Lynch et al., 2017; Salisbury & Van Voorhis, 2009). More specifically, based on trauma theory, characteristics of women involved in the criminal justice system include problems with substance abuse, histories of abuse, and difficulties with mental illness (Lynch et al., 2012). Researchers have theorized that women's pathways into crime may be gendered by mental health and trauma (Kruttschnitt, 2016; Lynch et al., 2017; Salisbury & Van Voorhis, 2009). However, a lack of research exists regarding potential relationship of mental health on criminality.

In this study, I used logistic regression to predict the likelihood of whether women completed the pretrial drug court program (i.e., received diversion/case dismissed) or did not complete the drug court program (i.e., did not receive diversion/case was not dismissed). Logistic regression allowed me to determine which independent variables

were likely to increase or decrease the probability of program completion. I conducted a chi-square analysis to examine the goodness of fit model of the independent variables (i.e., age, education level, marital status, violent criminal history, and mental illness) and the dependent variable (i.e., program completion). Finally, I conducted an analysis of proportional reduction in error to examine the fit of the logistic regression model.

Population, Sample Size, and Sampling Procedures

The sampling process and sample design for research includes how the sample is selected (Frankfort-Nachmias et al., 2015). Defining the population includes identifying the unit of analysis, the group's geography, and the related period of interest (Creswell, 2014). If researchers want to generalize from the sample to the population, it is important to select a sample of participants that is representative of the population under study (Creswell, 2014).

The site of this study was a criminal justice agency located in Washington, DC, that provides supervision and services to adult defendants awaiting trial before the Superior Court for the District of Columbia and the U.S. District Court for the District of Columbia. I collected secondary archival data from the agency's automated case management system referred to as the Pretrial Real Time Information System Manager (PRISM). The population for this study was female defendants who participated in the Superior Court Drug Intervention Program Drug Court ("Drug Court") located in Washington, DC.

I used secondary archival data to determine which cases were included in the study. Using existing data allowed for the analysis of readily available information

without imposing potential harm to the population. I considered other data collection methods for my study; however, I studied a vulnerable population. My employer would not grant employee Institutional Review Board approval to conduct direct research with defendants; therefore, focus groups and surveys were prohibited. I used a convenience sample of female participants only because the drug court program allows both male and female participants. Potential limitations of this sampling strategy included that the data had already been collected, could have posed recording errors, and may have had no generalizability to other female drug court participants. Reliance on participants' self-reporting and recall also presented a potential limitation to the study.

The data comprised female defendants who participated in the program between January 1, 2009 and December 31, 2014. The inclusion criterion was that female participants must have had an active certified case(s) for the duration of their participation in the drug court program. Participants whose charges were dismissed before completing the program were excluded. Since transgender persons are unidentified in the PRISM data set, transgender women consequently may have been included in the study. The agency provided the aforementioned secondary data with the consent of the agency's Research Review Committee (RRC).

Data Collection Procedure

I utilized de-identified secondary archival data. Following approval from the Walden University IRB, a designated agency staff person extracted the requested data from PRISM. I anticipated that the request would be completed within 2 weeks. Throughout this study, I made efforts and took precautions to maintain the

confidentiality, privacy, and anonymity of all study participants in accordance with agency policy. For this research project, de-identified defendant-level data containing the information in the research data mentioned above was requested. Personal identifiable information was at no time collected, and all data that I acquired remained coded and password protected at all times.

Agency records provided each defendant with an anonymous numerical defendant identification that related to various modules within PRISM; therefore, I used this identification number to extract data from PRISM that corresponded with the identification number. This approach permitted me to answer the research questions following the strict parameters of the federal privacy act. The items described in the research data should be considered the desired data elements outlined for initial discussion with the agency's RRC. Furthermore, I performed all statistical analyses in the study using the Statistical Package for the Social Sciences (SPSS).

Data Preparation

Data were provided in a Microsoft Excel spreadsheet with two tabs: one was labeled "Main Dataset" and one was labeled "Criminal History." I imported each spreadsheet into SPSS. After attempting to merge the files by their case ID numbers, it was determined that several cases were duplicated in each data set. The "Main Dataset" contained 3,604 cases, of which 255 cases were duplicated. The primary cases were selected for analyses and copied to another data set, then sorted by ascending order relative to the case ID to facilitate the merging of data files. The "Criminal History" data set contained data on 11,423 cases, of which 9,717 were duplicated. I selected the

primary cases for analyses and copied them to another data set where they were sorted by ascending order relative to the case ID to facilitate the merging of data files. The files were then matched by their unique case IDs and merged into one SPSS data set. This process resulted in 3,349 unduplicated cases. Since the study inclusion criteria consisted of only females, they (i.e., females) were extracted from the data set and all other cases were deleted. This process resulted in a total of 796 female cases in the data set used to answer the research questions.

I computed the variable of age at release date from the available data. Specifically, it was computed from the birth year and the date of release. The year of release was extracted from the date of release, and the birth year was then subtracted from the year of release to create the variable of age at release date.

In order to conduct binary logistic regression, the analysis for answering the first three research questions, and due to missing data and the distribution of the data, it was necessary for me to recode two variables of interest with multiple categories to a few categories. Marital status, for instance, had to be reduced from eight different categories (i.e., common law, divorced, married, no comment, separated, separated-not legal, single, and widowed) to three categories: (a) married; (b) divorced, separated, or widowed; and (c) single. Due to the way educational level was reported in the data set, it had to be dichotomized. Prior to the year 2011, educational level was reported in years of completion; however, since 2011, educational level has been reported in categories. Both were reflected in the data set; therefore, it seemed logical to create two categories: postsecondary education and “no postsecondary education.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study:

RQ1: To what extent is there a significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women?

H₀1: There is no statistically significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women.

H₁1: There is a statistically significant relationship between demographic factors, such as age, education level, and marital status, and the likelihood of drug court completion for women.

RQ2: To what extent is there a relationship between violent criminal history and the likelihood of drug court completion for women?

H₀2: There is no statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

H₁2: There is a statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

RQ3: To what extent is there a relationship between a history of mental health problems and the likelihood of drug court completion for women?

H₀3: There is no statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

*H*₁₃: There is a statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

Data Coding

The appropriate statistical test to analyze the data was regression analysis using the Statistical Package for the Social Sciences. All variables were measured and obtained through official, archival defendant records from a criminal justice agency in Washington, DC. The use of official government data increased the validity of this study, as the obtained information was more valid and less susceptible to error. Furthermore, using official government records prevents the possibility of biased pretrial officer interpretations of defendant behaviors.

Variables include the following: age, education level, marital status, violent criminal history, mental health history, and program completion. For the logistic regression model, I used dummy coding, a process of coding categorical predictor variables into dichotomous variables. This coding uses only the values “1” and “0” to represent all of the necessary information on group membership.

The violent criminal history variable was measured by examining official government criminal history records of participants under PSA supervision. Violent criminal history was defined as experiencing either one or a combination of dangerous or violent charges as an adult. Violent charges were defined as those that were against persons and involved threatened or actual physical injury (e.g., drug-related charges,

assault, and weapons-related charges). The occurrence of violent criminal history was coded as “1” and no occurrence was be coded as “0.”

The mental health variable was measured by examining official government mental health information of participants under PSA supervision. Mental health history was characterized as having either one or a combination of mental health, emotional problems, or substance use problems for which an individual seeks prevention, intervention, and treatment services. Likewise, a history of mental health problems was coded as “1” and no occurrence was coded as “0”.

The program completion variable was measured by examining official government data of participants under PSA supervision. Program completion was categorized as whether a participant completed or did not complete drug court. For example, successful program completion means the participant satisfied all requirements of the drug court program without incurring any new convictions or felony rearrests and received a dismissal of their original charge(s). Unsuccessful termination, however, means the participant did not satisfy all the requirements of the drug court program and their original charge(s) proceeded to prosecution. Successful program completion was coded as “1” and unsuccessful termination was coded as “0”.

Ethical Considerations

The study was conducted in conformity with Walden University’s Institutional Review Board (approval number: 02-27-19-0342419) established procedure to guarantee ethical protection of research data. This study did not involve use or creation of instruments such as questionnaires or surveys. The requested data was de-identified and

archival; therefore, there was no indication of risk or discomfort to subjects as result of this study. For security, data were transferred to a password protected Microsoft Excel file, provided to me, and stored on an encrypted Universal Serial Bus device. Following completion and approval of my dissertation, it will be submitted to the appropriate office at Walden University. After Walden University accepts my dissertation, I will return all media provided by RRC containing the requested data and destroy all data copied onto my laptop for data analysis purposes. The collected data will remain password protected and maintained by me for 5 years following the completion of the study.

Summary

Historically most studies in criminology focus on men even though research shows women have different criminal trajectories and treatment needs (Spjeldnes et al., 2014). I provided understanding about the factors that impede female participants from successful completion of coed drug court programs. In this study, I examined drug court incompletions for women with mental illness and violent criminal histories, along with demographic characteristics of the participants. By increasing knowledge in this area, criminal justice agencies and drug treatment vendors can ensure they provide effective gender-specific programming to women. This would increase the chances of breaking the cycle of victimization, and end the cyclical pathway to the criminal justice system. Furthermore, I attempted to promote trauma awareness in drug treatment programs and provided insight about the importance of gender-specific programming in the criminal justice system. The results of the study will be presented in Chapter 4.

Chapter 4: Results

Introduction

The purpose of this quantitative, correlational study was to examine female defendants who have violent criminal histories and mental health problems and the factors that contribute to completion or incompleteness of a coed drug court program. Other factors examined for their relationships to drug court program completion included age, educational level, and marital status. Historically, most studies in criminology focus on men even though research has shown women have different criminal trajectories and treatment needs (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014). The results from this study can influence social change because treatment providers can use them to develop curricula that target specific issues that encumber this subpopulation.

In this study, I used logistic regression to predict the likelihood of whether female defendants completed the drug court program (i.e., received diversion/case dismissed) or did not complete the drug court program (i.e., did not receive diversion/case was not dismissed). Logistic regression allowed me to determine which independent variables were likely to increase or decrease the probability of program completion. A chi-square analysis was conducted to examine the goodness of fit model of the independent variables (i.e., age, education level, marital status, violent criminal history, and mental illness) and the dependent variable (i.e., program completion). Next, I conducted an analysis of proportional reduction in error to examine the fit of the logistic regression model. As part of the analysis, a check for missing values in the data and assumptions for statistical tests were performed for the regression model.

The site of this study was a criminal justice agency located in Washington, DC that provided supervision and services to adult defendants awaiting trial before the Superior Court for the District of Columbia and the U.S. District Court for the District of Columbia. I obtained secondary archival data from the agency's automated case management system referred to as the PRISM.

The research questions and hypotheses that guided this study were as follows:

RQ1: To what extent is there a significant relationship between demographic factors such as age, education level, and marital status, and the likelihood of drug court completion for women?

H₀1: There is no statistically significant relationship between demographic factors such as age, education level, and marital status, and the likelihood of drug court completion for women.

H₁1: There is a statistically significant relationship between demographic factors such as age, education level, and marital status, and the likelihood of drug court completion for women.

RQ2: To what extent is there a relationship between violent criminal history and the likelihood of drug court completion for women?

H₀2: There is no statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

H₁2: There is a statistically significant relationship between violent criminal history and the likelihood of drug court completion for women.

RQ3: To what extent is there a relationship between a history of mental health problems and the likelihood of drug court completion for women?

H₀₃: There is no statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

H₁₃: There is a statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women.

Chapter 4 consists of an introduction, description of the sample, explanation of the research question/hypothesis testing, and a summary of the results. In Chapter 4, I present the data collected for the study as well as a summarization of hypotheses and outcomes. Chapter 4 also contains data tables.

Description of Sample

The sample consisted of 796 females, ages 18 to 102 years old ($M = 39.17$, $SD = 11.51$) with a median age of 38.50. Ninety-four percent ($n = 748$) were Black, African Americans, or of African Descent; 4.8% ($n = 38$) were White/Caucasians; 1.1% ($n = 9$) were Hispanic/Latinos; and 0.1% ($n = 1$) were Asian or Pacific Islanders. Educational level was missing for 57.7% ($n = 459$) of the cases. Of the remaining cases ($n = 337$), 82.2% ($n = 277$) of females had no postsecondary education, whereas 17.8% ($n = 60$) had some sort of postsecondary education inclusive of some college, but no degree, associate degrees, baccalaureate degrees, graduate degrees, and vocational training. Prior mental health conditions were missing on 57.5% ($n = 458$) of cases. Of the remaining 338 cases,

11.5% ($n = 39$) had a history of mental health problems, whereas 88.5% ($n = 299$) did not. Regarding a violent criminal history, 42.2% ($n = 336$) of females had violent criminal histories, whereas 57.8% ($n = 460$) did not. Drug court completion data were missing on 21.2% ($n = 169$) of cases. Of the remaining cases ($n = 627$), 60.3% ($n = 378$) successfully completed the program, whereas 39.7% ($n = 249$) exited the program early due to noncompliance. Approximately 11% ($n = 87$) of females were connected with a mental health service provider at placement in the program, whereas 89% ($n = 709$) were not connected. See Table 1.

Table 1

Description of Sample

Variable	Description	<i>n</i>	%
Prior mental health condition	No	299	88.5
	Yes	39	11.5
	Total	338	100.0
Marital status	Married	18	5.4
	Divorced, separated, or widowed	39	11.6
	Single	279	83.0
	Total	336	100.0
Educational level	No postsecondary education	277	82.2
	Postsecondary education	60	17.8
	Total	337	100.0
Drug court completion	Early exit noncompliant	249	39.7
	Successful completion	378	60.3
	Total	627	100.0
Violent criminal history	No	460	57.8
	Yes	336	42.2
	Total	796	100.0

Assumption Testing for Binary Logistic Regression

Certain assumptions had to be met for the binary logistic regression analysis in this study. The assumption of autocorrelation tests whether adjacent residuals are correlated (Field, 2013). The Durbin-Watson statistic is a test for autocorrelation in a data set that ranges from 0 to 4 (Field 2013). Durbin-Watson values less than 1 and greater than 3 are concerning (Field, 2013). The Durbin-Watson value 1.815 suggests the assumption for autocorrelation has been met.

Multicollinearity occurs when two or more variables are so closely correlated that is difficult to determine reliable estimates of their individual regression coefficients (Field, 2013). Therefore, the variables are essentially measuring the same construct when multicollinearity exists (Field, 2013). The variance inflation factor (VIF) measures the severity of multicollinearity in the regression analysis (Field, 2013). The VIF values suggest the assumption for multicollinearity were met. VIF values for age, marital status, educational level, violent criminal history, and prior mental health condition were, 1.142, 1.081, 1.045, 1.094, and 1.025, respectively.

The Cook's distance (Cook's D) statistic indicates outliers or extreme observations in data (Field, 2013). This statistical test measures for the influence of a case on a model and checks for exceedingly high or low values that can interfere with results (Field, 2013). Cook's D values greater than 1 suggest a case might be influencing the regression model and should be considered problematic (Field, 2013). The Cook's D for this study was .001 to .031, which suggests no outliers existed in the data. See Table 2. Overall, the statistical assumptions for this data set were adequately met.

Table 2

Residuals Statistics^a

	Minimum	Maximum	<i>M</i>	<i>SD</i>	<i>N</i>
Predicted value	.44	.75	.55	.055	258
Std. predicted value	-2.092	3.647	.000	1.000	258
Standard error of predicted value	.045	.153	.072	.026	258
Adjusted predicted value	.40	.73	.55	.056	258
Residual	-.674	.557	.000	.495	258
Std. residual	-1.347	1.113	.000	.990	258
Stud. residual	-1.369	1.152	.000	1.002	258
Deleted residual	-.714	.598	.000	.507	258
Stud. deleted residual	-1.371	1.153	.000	1.002	258
Mahal. distance	1.107	23.150	4.981	4.758	258
Cook's distance	.001	.031	.004	.004	258
Centered leverage value	.004	.090	.019	.019	258

^a Dependent variable: Drug court completion.

Within program completion, married women represented 3.4% ($n = 4$) who did not successfully complete drug court and 5.6% ($n = 8$) who successfully completed drug court. Within program completion, divorced, separated, or widowed women represented 12.9% ($n = 15$) who did not successfully complete drug court, whereas 9.2% ($n = 13$) represented those who successfully completed the program. Additionally, within program completion, single women represented 83.6% ($n = 97$) who did not successfully complete drug court and 85.2% ($n = 121$) who successfully completed drug court. A contingency table of drug court completion by marital status is presented in Table 3.

Table 3

Drug Court Completion by Marital Status

		Marital status divorced, separated, or					
		Married	widowed	Single	Total		
Drug court completion	Early exit noncompliant	Count	4	15	97	116	
		% within drug court completion	3.4%	12.9%	83.6%	100.0%	
		% within marital status	33.3%	53.6%	44.5%	45.0%	
			% of total	1.6%	5.8%	37.6%	45.0%
	Successful completion	Count	8	13	121	142	
		% within drug court completion	5.6%	9.2%	85.2%	100.0%	
		% within marital status	66.7%	46.4%	55.5%	55.0%	
				% of total	3.1%	5.0%	46.9%
	Total	Count	12	28	218	258	
% within drug court completion		4.7%	10.9%	84.5%	100.0%		
% within marital status		100.0%	100.0%	100.0%	100.0%		
		% of total	4.7%	10.9%	84.5%	100.0%	

I conducted a chi-square test and Cramer's V on the data to calculate effect size. Cramer's V can be used with categorical variables (Field, 2013). Effect size refers to the magnitude or *meaningfulness* of the differences between groups and does not depend on the sample size (Field, 2013; Funder & Ozer, 2019; Pek & Flora 2018). Statistical significance is dependent upon both the effect size and the sample size (Field, 2013; Funder & Ozer, 2019; Pek & Flora 2018).

There was no significant association between drug court completion and marital status, $\chi^2(2, N = 258) = 1.51, p = .469$; Cramer's $V = .077, p = .469$. Marital status was collapsed into two categories; married versus unmarried. A subsequent contingency table was generated for drug court completion by marital status dichotomized. Among women who were married, 33.3% ($n = 4$) did not successfully complete drug court, whereas 66.7% ($n = 8$) successfully completed drug court. Among women who were not married, 45.5% ($n = 112$) did not successfully complete drug court and 54.5% ($n = 134$) successfully completed drug court. However, this was not statistically significant, $\chi^2(1, N = 258) = .688, p = .407$; Cramer's $V = .052, p = .407$. See Table 4.

Table 4

Drug Court Completion by Marital Status Dichotomized

		Marital status			
			Not married	Married	Total
Drug court completion	Early exit noncompliant	Count	112	4	116
		% within drug court completion	96.6%	3.4%	100.0%
		% within marital status	45.5%	33.3%	45.0%
		% of total	43.4%	1.6%	45.0%
	Successful completion	Count	134	8	142
		% within drug court completion	94.4%	5.6%	100.0%
		% within marital status	54.5%	66.7%	55.0%
		% of total	51.9%	3.1%	55.0%
		Total	Count	246	12
	% within drug court completion	95.3%	4.7%	100.0%	
	% within marital status	100.0%	100.0%	100.0%	
	% of total	95.3%	4.7%	100.0%	

Among women who had no postsecondary education, 46.4% ($n = 97$) did not successfully complete drug court, whereas 53.6% ($n = 112$) successfully completed drug court. Among women who had postsecondary education, 40% ($n = 20$) did not successfully complete drug court and 60% ($n = 30$) successfully completed drug court. This was not statistically significant, $\chi^2(1, N = 259) = .670, p = .413$; Cramer's $V = .051, p = .413$. A contingency table of drug court completion by educational level is presented in Table 5.

Table 5

Drug Court Completion by Educational Level

		Educational level				
		No	Postsecondary			
		postsecondary	education	Total		
		education	education			
Drug court completion	Early exit noncompliant	Count	97	20	117	
		% within drug court completion	82.9%	17.1%	100.0%	
		% within educational level	46.4%	40.0%	45.2%	
		% of total	37.5%	7.7%	45.2%	
	Successful completion	Count	112	30	142	
		% within drug court completion	78.9%	21.1%	100.0%	
		% within educational level	53.6%	60.0%	54.8%	
		% of total	43.2%	11.6%	54.8%	
		Total	Count	209	50	259
			% within drug court completion	80.7%	19.3%	100.0%
% within educational level	100.0%		100.0%	100.0%		
% of total	80.7%		19.3%	100.0%		

Among women who had no violent criminal histories, 40.2% ($n = 149$) did not successfully complete drug court, whereas 59.8% ($n = 222$) successfully completed drug court. Among women who had violent criminal histories, 39.1% ($n = 100$) did not successfully complete drug court and 60.9% ($n = 156$) successfully completed drug court. This was not statistically significant, $X^2(1, N = 627) = .076, p = .782$; Cramer's $V = .011, p = .782$. A contingency table of drug court completion by violent criminal history is presented in Table 6.

Table 6

Drug Court Completion by Violent Criminal History

			Violent criminal history		
			No	Yes	Total
Drug court completion	Early exit noncompliant	Count	149	100	249
		% within drug court completion	59.8%	40.2%	100.0%
		% within violent criminal history	40.2%	39.1%	39.7%
		% of total	23.8%	15.9%	39.7%
	Successful completion	Count	222	156	378
		% within drug court completion	58.7%	41.3%	100.0%
		% within violent criminal history	59.8%	60.9%	60.3%
		% of total	35.4%	24.9%	60.3%
	Total	Count	371	256	627
		% within drug court completion	59.2%	40.8%	100.0%
% within violent criminal history		100.0%	100.0%	100.0%	
% of total		59.2%	40.8%	100.0%	

Among women who had no prior mental health conditions, 45.1% ($n = 106$) did not successfully complete drug court, whereas 54.9% ($n = 129$) successfully completed drug court. Among women who had prior mental health conditions, 44% ($n = 11$) did not successfully complete drug court and 56% ($n = 14$) successfully completed drug court. This was not statistically significant, $X^2(1, N = 260) = .011, p = .916$; Cramer's $V = .007, p = .916$. A contingency table of drug court completion by prior mental health condition is presented in Table 7.

Table 7

Drug Court Completion by Prior Mental Health Condition

			Prior mental health condition		
			No	Yes	Total
Drug court completion	Early exit noncompliant	Count	106	11	117
		% within drug court completion	90.6%	9.4%	100.0%
		% within prior mental health condition	45.1%	44.0%	45.0%
		% of total	40.8%	4.2%	45.0%
	Successful completion	Count	129	14	143
		% within drug court completion	90.2%	9.8%	100.0%
		% within prior mental health condition	54.9%	56.0%	55.0%
		% of total	49.6%	5.4%	55.0%
	Total	Count	235	25	260
		% within drug court completion	90.4%	9.6%	100.0%
% within prior mental health condition		100.0%	100.0%	100.0%	
% of total		90.4%	9.6%	100.0%	

Research Questions and Hypotheses Testing

The research questions/hypotheses were tested with binary logistic regression. A total of 258 cases were analyzed and the full model did not significantly predict drug court completion (Omnibus $X^2 = 5.76$, $df = 6$, $p = .451$). The model accounted for between 2.2% and 3% of the variance in drug court completion with 80.3% of the females completing drug court correctly predicted. However, only 25% of predictions for

females not completing drug court were accurate. Overall, 55.4% of predictions were accurate. Table 8 provides the coefficients, the Wald statistic, and associated degrees of freedom and probability values for each of the predictor variables. The Wald statistic is a test statistic with a known probability distribution (chi-square distribution) that is used to test whether the regression coefficient in a logistic regression model is significantly different from zero. It is analogous to the t statistic in a linear regression model.

Table 8

Coefficients for Drug Court Completion

Variable	B	S.E.	Wald	df	p	Exp(B)
Age	.018	.013	2.13	1	.145	1.02
Marital status			2.65	2	.266	
Married	.374	.634	.348	1	.555	1.45
Divorced/separated/widowed	-.649	.445	2.12	1	.145	.523
Educational level	.366	.341	1.15	1	.283	1.44
Violent criminal history	-.275	.270	1.04	1	.309	.760
Prior mental health condition	.159	.452	.123	1	.726	1.17
Constant	-.408	.463	.777	1	.378	.665

Note. Marital Status: Reference Category = Single. Educational Level: 1 = Post-Secondary Education, 0 = No Post-Secondary Education; Violent Criminal History: 1 = Yes, 0 = No. Prior Mental Health Condition: 1 = Yes, 0 = No.

Research Question 1/Hypothesis 1

To what extent is there a significant relationship between demographic factors such as age, education level, and marital status, and the likelihood of drug court completion for women? There was no significant relationship between the demographic factors of age ($p = .145$), education level ($p = .283$), and marital status ($p = .266$), and the likelihood of drug court completion for women. Null hypothesis 1 predicted that there is no statistically significant relationship between demographic factors such as age,

education level, and marital status, and the likelihood of drug court completion for women. There was no significant relationship between the demographic factors of age ($p = .145$), education level ($p = .283$), and marital status ($p = .266$), and the likelihood of drug court completion for women. Therefore, the null hypothesis was not rejected.

Research Question 2/Hypothesis 2

To what extent is there a relationship between violent criminal history and the likelihood of drug court completion for women? There was no significant relationship between violent criminal history and the likelihood of drug court completion for women, $p = .309$. Null hypothesis 2 predicted that there is no statistically significant relationship between violent criminal history and the likelihood of drug court completion for women. There was no significant relationship between violent criminal history and the likelihood of drug court completion for women, $p = .309$. Therefore, the null hypothesis was not rejected.

Research Question 3/Hypothesis 3

To what extent is there a relationship between a history of mental health problems and the likelihood of drug court completion for women? There was no significant relationship between a history of mental health problems and the likelihood of drug court completion for women, $p = .726$. Null hypothesis 3 predicted that there is no statistically significant relationship between a history of mental health problems and the likelihood of drug court completion for women. There was no significant relationship between a history of mental health problems and the likelihood of drug court completion for women, $p = .726$. Therefore, the null hypothesis was not rejected.

Summary

Three research questions and hypotheses were tested. None of the outcomes were statistically significant. The research questions were examined with binary logistic regression. It appears this model did not reduce errors or better classify the outcome. Logistic regression does not require the data to be normally distributed nor does it necessitate a linear relationship between the dependent and independent variables. There was no significant relationship between the demographic factors of age, education level, and marital status, and the likelihood of drug court completion for women. There was no significant relationship between violent criminal history and the likelihood of drug court completion for women. There was no significant relationship between a history of mental health problems and the likelihood of drug court completion for women. Recommendations and implications will be discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

In this chapter, I provide a conclusion to this study by summarizing and discussing the research findings, reviewing the limitations, and suggesting recommendations for future research. Chapter 5 concludes with implications for positive social change followed by a brief summary. I designed this quantitative study in part to examine the research gap of female defendants who have a history of violent criminal activity and mental health problems as well as the factors that contribute to completion of a coed drug court program. At the time of the study, limited research existed on how these challenges affect the outcomes of female defendants' drug court completion. In the project, I uncovered many limitations and several opportunities for further research. At the same time, the obstacles encountered during the study presented as much knowledge about the process as they did limitations.

In this quantitative study, I employed logistic regression of secondary archival data to examine the relationship between demographic features, violent criminal history, mental health problems, and drug court completion. The results of this study revealed no significant relationship between age, marital status, education level, violent criminal history, and mental health problems and the likelihood of drug court completion for women; yet, the results revealed that married women experienced a higher rate of program completion compared with women who are single, divorced, separated, or widowed. Analogously, the results revealed that women who had postsecondary

education also experienced a higher rate of program completion compared with women who did not have postsecondary education.

Interpretation of the Findings

My interpretation of the findings is based on the collection and analysis of the data. The findings of this study are incongruent with the current literature regarding substance use and mental health issues among justice-involved women. The results of this study failed to show a predictive relationship between demographic factors, such as age, education level, and marital status, violent criminal history, and mental health problems, and the likelihood of drug court completion for women. Just the same, the data results did not support the assumptions that statistical correlations exist between violent criminal history and mental health problems and program completion. Looking at the overall results, none of the outcomes were statistically significant. While it is the case that the results are inconsistent with my expectations, these variables and conditions still exist by way of the literature and theoretical framework that guided this study.

In spite of this, I observed the following. Considering marital status, program completion was the highest among married women, even though they were the least represented marital group (i.e., 4.7% of the sample). Marital status was dichotomized as married versus unmarried. Among women who were married, 66.7% successfully completed drug court ($n = 8$). This subgroup experienced the highest completion percentage. In comparison, among unmarried women, 54.5% successfully completed the program ($n = 134$). However, overall the model chi-square was not statistically significant, ($X^2 = .688$, $p = .407$, Cramer's $V = .052$). The small subsample of married

women ($n = 12$) was a considerable factor for the statistically insignificant results of this analysis. Nonetheless, the findings suggest women who are married fare better in drug court programs than single, divorced, widowed, or separated women. Further research with a larger subsample of married subjects might substantiate this claim.

Similarly, I found greater program completion among women with postsecondary education compared to women without postsecondary education. Considering educational level, program completion was the highest among women with postsecondary education, though they were the least represented education level (i.e., 19.3% of the sample). Among women with postsecondary education, 60% successfully completed drug court ($n = 30$). By contrast, among women without postsecondary education, 53.6% successfully completed the program ($n = 112$). The model chi-square, however, was not statistically significant ($X^2 = .670, p = .413$, Cramer's $V = .051$). Like married women, the low subsample of women who had postsecondary education ($n = 50$) was an important factor for the statistically insignificant results of this analysis. Still, the results imply women with postsecondary education fare better in drug court programs than women without a postsecondary education. Additional research with a larger subsample of women with postsecondary education might prove this assertion.

Resilience research has been applied to a variety of social risk factors, including exposure to trauma, neglect, and violence as well as being reared by a parent who is mentally ill (Bolton et al., 2017). Resilience is the manner in which an individual adapts to adverse experiences such as trauma, disaster, hardship, or danger (Bolton et al., 2017). Researchers believe that protective factors contribute to resilience, increasing an

individual's chance to succeed when facing challenges (Bolton et al., 2017). Protective factors include a person's environment, attachment, social connections, and trusting relationships (Bolton et al., 2017). The results from this study imply both marriage and postsecondary education are protective factors for the women who participated in this study. This finding suggests that criminal justice agencies should also focus on establishing postsecondary educational and training opportunities for supervisees.

Finally, women who have a violent criminal history slightly more often experienced program completion than women without a violent criminal history experienced. I found marginally higher program completion among women who have mental health problems in contrast to women who did not have mental health problems. Even more, it could be that demographics beyond those examined in this study that explain this missing link.

Marlowe et al. (2016) concluded that drug court programs overall are effective. Participants who successfully complete the program receive a dismissal of their original charge(s) and termination of pretrial supervision without the burden of a criminal record (Marlowe et al., 2016). More important, their legal status changes, as the individual is no longer involved in the criminal justice system (Marlowe et al., 2016). In addition to the court granting favorable case dispositions as a reward for program completion, participants are drug-free, thereby decreasing the likelihood of reentering the criminal justice system (Marlowe et al., 2016).

Limitations of the Study

There were several limitations to this study. Given my aim to research a population within a targeted government agency, the study was limited to the degree to which data could be requested and efficiently collected. While cost effective, the use of a convenience sample from secondary archival data presented limitations to generalizability and transferability. Since this study comprised a diversion program within a specific agency, there may be a different outcome when replicating this research in other jurisdictions. Participants' self-motivation and attitudes may differ since participation in the drug court program is voluntary. This distinction could produce a different conclusion or outcome. It can also be presumed that other factors exist that are not included in this study that impact drug court completion.

Relying on secondary data is also a limitation of the study. In spite of this, utilizing an existing database for social science research is sensible. It is not only cost effective but also an efficient use of time given that the original information already exists. For these reasons, student researchers can conduct research and generate meaningful contributions to the field without the expense.

I discovered inconsistencies in capturing and distributing demographic data for marital status and education level because these are not mandatory data fields in the data set used. Just the same, information regarding prior mental health conditions was missing on nearly 500 cases. Furthermore, how education level was recorded changed from years of completion to categories within the time period of the data set. Over numerous months, several iterations and reviews of the data ensued to address missing

information and inconsistent distribution of the data, creating substantial delays.

Therefore, the lack of significance may have resulted from missing data or the recorder's interpretation of the categories.

Another limitation of this study is that the scope was restricted between January 1, 2009 and December 31, 2014, which excludes current drug court participants. The comparison of participants from different time periods in this study could be associated with extraneous variables beyond my control. Additionally, the target population was women, which may differ demographically from drug court programs in other jurisdictions. African American women comprised the vast majority of the sample, thereby limiting the transferability of the findings to men, transgender persons, and other nationalities not represented in the sample.

Even though I eventually obtained agency approval to conduct the study, there were still challenges to obtaining and collecting data. The agency elected to revise its research and evaluation policy to meet regulatory requirements and placed an indefinite moratorium on research proposals for both internal studies and external requests from student researchers, including agency employees. With advanced planning, I secured agency research approval within weeks of the agency director's retirement in April 2017.

Recommendations

The results of this study contributed to the fields of diversion programs, substance abuse treatment, and community corrections by examining the relationship between violent criminal history, mental illness, and drug court completion. In this study, I concentrated on an individual criminal justice agency in Washington, DC in charge of

supervising defendants residing in that jurisdiction. Consequently, only one segment of the population was targeted. To garner results that are more generalizable to pretrial services agencies throughout the United States, comparable research should be conducted utilizing various pretrial agencies across the United States with similar in-house substance use programs. To ensure adequate representation of each state observed within the study, researchers should use stratified sampling. Some differences in variables influencing program completion other than violent criminal history or mental health history may exist.

Much of the literature reviewed suggested that experiencing traumatic events might have long-reaching effects on mental health (Lynch et al., 2012; Messina et al., 2012). The literature reviewed also insinuated that the inadequacy of proper assessment and treatment of justice-involved women with mental health issues is problematic (Bloom et al., 2003; Bloom et al., 2005; Jennings, 2004). While the results of this study seemed incongruent with trauma theory, it does not necessarily mean that past traumatic experiences have no impact on program completion. It is conceivable that the women involved in this body of research were exposed to trauma in their lifetime and developed resiliency, which is a construct that was not examined in the study.

Due to limited data and lack of proprietary rights to exclusive data, I was incapable of addressing research questions regarding trauma history and identification of trauma experience in this study. With this information, a stronger picture would illustrate the connection between trauma exposure and program completion. For positive social change, I would recommend that drug court programs be purposeful in identifying

participants' trauma history at intake to help them succeed. Lastly, I would recommend that various jurisdictions be examined in future research, including suburban and rural locales. However, this could present a challenge because some jurisdictions may not provide pretrial supervision. Because the overwhelming majority of the sample in this study consisted of local African American women, African American women who live in suburban and rural communities may not be represented.

Implications

The findings of this study have implications for further research. The results of this study promote positive social change aimed at drug court diversion programs and criminal justice agencies regarding program development that targets the specific risks that women face. Specifically, the findings of the current study indicated that there is a link between marital status and drug court completion for women. The findings hint at the possibility that married women have an advantage of being successful in a drug court treatment program. This suggests that participants have protective factors that potentially promote success in treatment and, therefore, on supervision. These findings can serve as a roadmap for other pretrial service agencies and drug courts for enhancing program delivery.

While trauma theory takes into account the connection between unhealthy relationships and criminality for women (Messina et al., 2012), research has also shown that poor mental health has a correlation with recidivism for women (van der Knaap et al., 2012). A mixed methods study would allow participants to discuss the factors that they feel contribute to their drug court outcomes. By increasing knowledge in this area,

the findings will provide a deeper understanding of why women may or may not complete treatment.

The findings of this study also have implications for practice. With this study, I addressed the gap in the research regarding the predictive nature of age, educational level, marital status, violent criminal history, and mental health problems in relation to completion of a coed pretrial drug court diversion program in Washington, DC. The results of this research support the importance of conducting proper assessments for this population. In this study, portions of the sample were either not asked about prior mental health history or the interviewers did not capture the information. Likewise, inconsistencies in recording demographic data were discovered for marital status and education. Practitioners and professionals working with women in the criminal justice system have a responsibility to understand these women's service needs. My hope is that these practitioners take care to perform comprehensive mental health and needs assessments for the women they serve.

Lastly, the findings of this study have implications for positive social change at the organizational level. Agencies and organizations must evaluate their data integrity. I recommend agencies guarantee to capture client data exactly and consistently as intended. Agencies and organizations use data to inform essential business decisions that range from establishing budgets and agency priorities to developing policies and measuring program performance. Without preserving data integrity, business decisions can profoundly affect an organization's ability to accurately evaluate their programs.

Conclusion

The purpose of this study was to determine if mental health and violent criminal history were statistically significant in predicting the likelihood of drug court completion for women. In general, the findings of this study were not aligned with the existing literature. Still, the results of this research can serve as groundwork for improving how criminal justice agencies and practitioners enhance the services they provide women. With this in mind, I recommend that qualitative research be used to explore this subject to gain a deeper of factors that contribute to women's drug court outcomes.

More and more women are entering the criminal justice system for drug abuse and drug-related activities (Bello et al., 2019; BJS, 2014; Golder et al., 2014). Researchers have turned their attention to women and criminality and discovered that trajectories into criminality differ for men and women (Salisbury & Van Voorhis, 2009; Spjeldnes et al., 2014). Just the same, factors that contribute to their success while participating in substance abuse treatment differ as well (Gallagher et al., 2015; Liang & Long, 2013; Powell et al., 2012; Saxena, Grella, & Messina, 2016). The results of this study suggest women have protective factors that mitigate their risk for failure in drug court diversion programs. It is my hope that future research unveils those factors. Until then, opportunities to help improve drug court outcomes still remain.

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