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Youth and Family Factors Affecting Completion of a Diversion Program

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Walden University

College of Social and Behavioral Sciences

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Teresita Nuguid

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the review committee have been made.

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Walden University
2022

Abstract

Youth and Family Factors Affecting Completion of a Diversion Program

by

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MS, Phoenix University, 2011

BS, Jose Rizal University, 1984

BS, Jose Rizal University, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

General Teaching Psychology

Walden University

February 2022

Abstract

The Florida Department of Juvenile Justice (FDJJ) has launched several diversion programs for at-risk youth in the state of Florida. Prior studies revealed the efficacy of diversion programming in helping mentally ill individuals, the community, and the criminal justice system. This study addressed a gap in the literature regarding how youth and family factors and characteristics can determine program completion. The purpose of this quantitative study was to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs in the state of Florida. The family systems theory used for this study supports the idea on how family dynamics can potentially influence family-related factors among family members and how they relate to individual and family factors that affect program completion. Participants ($N = 7,068$) were collected from the archival data of the FDJJ who participated in a diversion services program in the state of Florida for the fiscal year 2017-2018. Spearman correlations and logistic regression models were used to answer all research questions to show the relationship between the independent variable (program completion) and each of the four dependent variables (substance use, interpersonal stress, undermined authority and relatedness, and family discord). Findings showed youth factors/characteristics, family factors, and family discord predicted juvenile justice diversion program completion. One important implication in this study is for positive social change that may offer social transformation for most at-risk youth, which is the focus and heart of juvenile justice programs.

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Dedication

I wholeheartedly dedicate this work to my two precious children, Gino and Gio Cross, who have been my source of inspiration, my pride and joy, and the only true meaning of happiness I know. I dedicate this work to my late beloved parents, Pedro and Lorenza, who instilled in me the essential character values of respect, kindness, honesty, gratefulness, responsibility, empathy, patience, and resilience. I thank them for their unconditional love, support, guidance, and encouragement. To my siblings, thank you for always being there for me through life's ups and downs. Finally, to the Almighty God, for endowing me with wisdom to discern, courage to trust, and strength to continue with everything that I have been through. All this I offer to your glory!

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Chapter 1: Introduction to the Study

Diversion is a viable alternative to incarceration of at-risk youth under the age of 18 charged with a minor crime in the state of Florida. The Florida Department of Juvenile Justice (FDJJ) has launched several diversion programs that allow such youth to remain in their home community (FDJJ, 2012). Each youth is referred to the State Attorney and the court for diversion and assigned a juvenile probation officer who will monitor compliance and connect with service providers (FDJJ, 2012).

Early studies revealed the efficacy of diversion programming in helping mentally ill individuals, the community, and the criminal justice system (Verhaaff & Scott, 2014). Diversion programming has advantages over traditional criminal justice processing by delaying rearrest, decreasing days spent in jail by youth, decreasing recidivism, and achieving cost savings for the state of Florida (Verhaaff & Scott, 2014). Program completion is crucial to the success of diversion programming. The likelihood of completing diversion programming may rely on several factors as predictive of program completion. As such, the present study explored participant variables such as individual and familial factors and characteristics predictive of completing the program for participants in a diversion program (FDJJ, 2012).

In 2004, the FDJJ launched a pilot program called “Florida Redirection” through a contract with Evidence-Based Associates (EBA), which aims to redirect troubled youth from incarceration or residential placements (EBA, 2016). The redirection program used multisystemic therapy (MST), functional family therapy, and brief strategic family therapy based on family-focused and evidence-based treatment approaches (EBA, 2016).

According to the report submitted by the Office of Program Policy Analysis and Government Accountability (OPPAGA) dated April 2010 (Report no. 10-38), a total of 3,956 youth qualified for a diversion program, and of these, 2,821 successfully completed the program in December 2009 (EBA, 2016). In 2013, the FDJJ took over the program, with more than 10,000 youth and families qualified for a diversion program (EBA, 2016).

Background

Building on the growing body of empirical literature on effective treatment in diversion programs, there have been various studies about different factors that affect treatment completion among youth and their families in diversion programs. Asscher et al. (2014) examined the sustainability of using MST as a technique for reducing recidivism for juvenile delinquents in the Netherlands. The MST technique is also used in diversion programs. Ryan et al. (2014), Vander Kooi (2015), Weaver and Campbell (2015), Mathur and Clark (2014), and Wilson and Hoge (2013) examined the benefits of diversion programs for first-time juvenile offenders as a better approach than incarceration. The results of these studies correlated highly with reduced recidivism. Loeb et al. (2015) and Nowakowski and Mattern (2014) examined how individual and familial variables predicted completion of a diversion program and established which individual and familial characteristics are likely to hinder program completion. Belciug, et al.(2016) discussed the significance of employing different approaches as predictors of high engagement among at-risk youth in juvenile programs. Konecky et al. (2016) investigated high dropout rates among adolescents enrolled in a drug court program.

Lastly, Palombi (2016) examined the separation of children from parents through Bowen family systems theory.

Loeb et al. (2015), noting a gap in the literature, recommended that individual and familial variables be evaluated in different diversion program agencies for generalizability. Loeb et al. (2015) also revealed that only a few studies focused on the impact of participant variables as crucial in completing the program. To address the gap, the present study examined how individual and familial variables predicted completion of a diversion program and established which individual and familial characteristics were likely to hinder program completion. In the current study, I investigated youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). The results of the study established which individual and familial characteristics affected program completion. The results of the study may assist the work of psychologists and the state juvenile justice agencies in helping delinquent youth and their families, and may provide information for teaching psychology and other social science students whose goals are to work with diversion programming for juvenile justice-involved youth.

Problem Statement

The two research questions for the present study were the following: Research Question 1: Do youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion? Research Question 2: Do family factors/characteristics such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion?

Research has indicated that diversion programs for juveniles are good options for delinquent youth with minor violations (FDJJ, 2012). For example, a study on recidivism by Ryan et al. (2014) examined the three diversion alternatives, namely in-home probation, group-home placement, or probation camp, for first-time youth offenders. Among the three alternatives, in-home placement was found to be a successful approach to reduce the risk of recidivism for first-time juvenile offenders (Ryan et al., 2014). Additionally, Wilson and Hoge (2013) conducted a meta-analysis study that investigated the effect of youth diversion programs on recidivism and found that diversion correlated significantly with reduced recidivism.

Research studies on diversion have shown that youth and family factors impact outcomes. For example, a study conducted by Loeb et al. (2015) examined how individual and familial variables predicted the completion of a diversion program. Findings revealed that variables such as gender (male and female), ethnicity (Caucasian and African American), adoption, frequent childhood moves, academic performance, ADD/ADHD diagnosis, and parents' report of a juvenile not helping with household chores predicted program completion. In contrast, variables such as prior mental health treatment, mother's mental health history, parents reporting aggressive behavior, and childhood abuse predicted program noncompletion. Additionally, Nowakowski and Mattern (2014) examined distinct profiles of youth who were violent against a family member and how such characteristics factored in the completion of the program. The findings revealed that youth and their families with prior violent arrests, school-related

problems, and substance use were less likely to complete the diversion program due mainly to noncompliance.

According to Loeb et al. (2015), prior research studies reported positive program outcomes, but only a few studies focused on the impact of participant variables as crucial in completing the program. Therefore, a thorough investigation of participant variables predictive of completing the program was needed. Loeb et al. also recommended that future research be conducted to explore different diversion program agencies because the findings in one setting may not necessarily generalizable. To address the gap in the literature, I conducted the present study investigating youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). The results of the study provided information that can be used in teaching psychology and other social science students whose goals are to work with diversion programming for juvenile justice-involved youth.

Purpose

The present study involved a quantitative approach using secondary data in a nonexperimental design that explored youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). Logistic regression analysis was used for the current study, as the variables were reported as dichotomous variables. Logistic regression described the data and explained the relationship between one binary dependent variable and several independent binary variables.

Research Questions/Hypotheses

Research Question 1: Do youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion?

Null Hypothesis 1: Youth factors/characteristics such as substance use and interpersonal stress do not predict juvenile justice diversion program completion.

Alternative Hypothesis 1: Youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion.

Research Question 2: Do family factors/characteristics such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion?

Null Hypothesis 2: Family factors such as undermined authority and relatedness and family discord do not predict juvenile justice diversion program completion.

Alternative Hypothesis 2: Family factors such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion.

Significance

Two of the tough challenges that policymakers face every day are crime and delinquency in society (FDJJ, 2012). Crime and delinquency committed by youth who are under 18 and charged with a minor crime are challenging for policymakers, given the

high cost of incarceration and residential facilities. The absence of alternatives for delinquent youth who are incarcerated in overcrowded jails and residential facilities has been a problem (FDJJ, 2012). Diversion programs as viable alternatives to jails and residential facilities contribute toward social change as they address problems related to social, legal, and mental health (FDJJ, 2012). For example, diversion programming is provided for youth who committed a minor crime in the state of Florida, which allows them to live in their homes or transition back into the community (FDJJ, 2012).

Psychologists have worked with state juvenile justice agencies to both develop and evaluate diversion programming (National Criminal Justice Reference Service [NCJRS], n.d.). The present study assessed the evidence for individual and family factors as influential in juveniles completing diversion programming and ultimately avoiding incarceration. Additionally, the information obtained from the results of the present study may assist the work of psychologists or be used in teaching psychology and other social science disciplines whose goals are to work with diversion programming for juvenile justice-involved youth.

Framework

The present study examined the characteristics of youth and their families that affect program completion and used family systems theory. Bowen developed the theory in the 1950s based on the general principles of family dynamics, seeing the family as an interconnected emotional unit, and observed the patterns of family dysfunction through multifaceted interactions in the family (Berg-Cross & Worthy, 2013). In an application of family systems theory, Alarid et al. (2012) examined family factors that influenced

juvenile drug court program completion and the likelihood of rearrest and found family support to be a significant predictor of both program completion and post program reduced recidivism.

The fact that family dynamics have the potential to influence family-related factors such as the level of family support, living arrangements, and family dysfunction such as conflicts among family members, abuse, and neglect seems to justify the theoretical perspective of family systems theory. The application of family systems theory helped in analyzing youth and family variables as an emotional unit. Youth factors such as substance use and interpersonal stress and family variables such as undermined authority and relatedness that were used in the current study were the changes or occurrences in the emotional functioning of one member of the family that might have predicted juvenile justice program completion.

Nature of the Study

The methodology for the present study was a quantitative approach that used secondary data in a nonexperimental design. Logistic regression analysis was used for the current study, as the variables to be reported were dichotomous. Logistic regression described the data and explained the relationship between one binary dependent variable and several independent binary variables. Using nominal scales in SPSS, a multinomial logistic regression analysis was proposed, as there were several independent variables measured on different scales, and the dependent variable was nominal. The dichotomous variables on the intake form had a “Yes” or “No” response.

The main source of data collection was records review of archived cases obtained from the FDJJ database of diversion programs in the state of Florida (EBA, 2016). It was also possible that the data and criminal records of those who participated in the program were included. An analyst provided the data on a spreadsheet to me with all identifying information removed. I was not given direct log-in privileges to the FDJJ database.

Measures for the selected variables were juvenile justice program completion, substance use, interpersonal stress, undermined authority and relatedness, and family discord, which were assessed using the Community Positive Achievement Change Tool (C-PACT). The C-PACT assessment was a standard measurement tool used across all programs throughout the FDJJ that determined youths' risk/needs assessment (FDJJ, 2012). The C-PACT assessment was adapted from the Washington State Juvenile Court Assessment, BackOnTrack! (Baglivio, 2013). A study conducted by the Florida Research Center examined a three-phase evaluation of the validity and reliability of the C-PACT, which has 12 domains (Winokur-Early et al., 2012). The C-PACT Full Interview Guide assessment instrument was used in the initial interview with the youth (FDJJ, 2012).

Definitions

Diversion programming: Also referred to as *redirection services*, these are time-limited, intensive community-based services that address the multiple determinants of behavioral disorders in juvenile offenders. The goal of these services is to “redirect” recipients from juvenile justice facilities to more effective, family-focused, evidence-based treatment options by receiving treatment services in the home and the community (Florida Agency for Health Care Administration, 2018).

Family discord: According to family systems theory, a family is an interconnected emotional unit, and it is possible to observe patterns of family dysfunction through multifaceted interactions in the family (Berg-Cross & Worthy, 2013). Family discord is a consistent risk factor for major depressive disorder and anxiety disorders in offspring of depressed and nondepressed parents (Pilowsky et al., 2006).

Interpersonal stress: Significantly related to psychological distress as well as to somatic symptoms, both directly and indirectly, via paths mediated by loneliness (Aanes et al., 2010).

Juvenile delinquency: The participation by a minor child, usually between the ages of 10 and 17, in illegal behavior or activities. Juvenile delinquency is also used to refer to children who exhibit persistent behaviors of mischievousness or disobedience that may be considered out of parental control, thus becoming subject to legal action by the court system.

Noncompliance: The failure or refusal to obey. In diversion programming, noncompliance of youth may result in living in a residential facility (FDJJ, 2012).

Substance use: The excessive use of substances such as illegal drugs, alcohol, prescription medicine, and legal substances that are harmful and can cause significant impairment or distress to an individual (WebMD, 2019).

Undermined authority and relatedness: Authority and relatedness dynamics are the keys to understanding the self, and family is the main developmental niche for the self (Kagiticibasi, 2013).

Assumptions

The current study involved the assumption that the use of secondary data would result in providing accuracy despite the possibilities of incomplete or missing information. An assumption was that I would be granted access to secondary data by the FDJJ Research and Integrity department based on a single diversion program agency in Florida. Further, I made the assumption that the topic of the current study was essential because it focused on important participant variables such as youth and family factors that predicted completion. According to Loeb et al. (2015), only a few studies have focused on the impact of participant variables as crucial in completing the program.

An assumption was that the use of logistic regression as a statistical tool using archival data. I assumed that Bowen's theory of family systems was applicable to the current study, as the theory was based on the general principles of family dynamics such as patterns of family dysfunction through their interactions in the family. Bowen's theoretical ideas that are supported by empirical studies include differentiation, triangulation, sibling position, and multigenerational transmission (Miller et al., 2004).

Scope and Delimitations

The scope of the present study encompassed data on specific variables from the diversion program for youth during the fiscal year 2017-2018. Individual variables included substance abuse and interpersonal stress, while familial variables included undermined authority and relatedness and family discord. The participant's age range for this study included every youth within the age bracket of 11-17 regardless of offense type (FDJJ, 2012). Only youth who were recommended by the FDJJ and got approved by the

court and state attorney to receive diversion program services. Delimitations of the study excluded data outside the fiscal year 2017-2018.

Limitations

One limitation of the study was the use of secondary data. The recorded data were accurate but might have contained incomplete or missing information. A limitation on the data for this study was that the FDJJ Research and Integrity department would only grant access for a specific fiscal year, which might have limited the generalizability of the findings. Future research is recommended to explore different agencies based on three calendar years using the same variables for the generalizability of the current study findings.

A limitation was that there might be issues of validity related to the way in which the variables were defined (e.g., issues related to the definitions of the variables at the time of initial data collection or measurements). A limitation that logistic regression models developed for this study based on a single set of data must be validated with a second data set before being used for prediction (Loeb et al., 2015). A limitation was that Bowen's family systems theory lacks research testing to support the claim that the theory is universal (Miller et al., 2004).

Summary

The FDJJ has launched several diversion programs that allow youth under the age of 18 charged with a minor crime to remain in their home community (FDJJ, 2012). Diversion programming is a viable alternative to incarceration as it delays rearrest, decreases days spent in jail by youth, decreases recidivism, and achieves cost savings for the state of Florida (Verhaaff & Scott, 2014). A growing body of empirical literature consists of various articles addressing the effectiveness of diversion programs and factors that predict treatment completion. For example, a study conducted by Loeb et al. (2015) examined how individual and familial variables predict the completion of a diversion program.

The present study, which explored youth and family variables that predicted program completion, used a quantitative approach and logistic analysis to describe the data and explain the relationship between the dependent variable and several independent variables. Secondary data from the FDJJ were the primary source for data collection. The results of the present study provide vital information for psychologists when assessing their clients' success or failure in the program. The results of the present study can be used in teaching psychology and other social science disciplines for those who work with juveniles. The present study used the Bowen family systems theory based on the general principles of family dynamics. The three assumptions made for the current research were based on the significance of the topic of the study, the methodology, and the theory. The scope of the survey was for the fiscal year 2017-2018, and the delimitations applied to

data outside the fiscal year 2017-2018. Using secondary data was the only limitation of the study.

Chapter 2: Literature Review

Introduction

Research indicated that diversion programs for juveniles were good options for delinquent youth with minor violations (FDJJ, 2012). Prior studies focused on the effectiveness of diversion programs and factors that predict treatment completion. Ryan et al. (2014) examined three diversion alternatives for first-time youth offenders: namely, in-home probation, group-home placement, and probation camp. Among the three alternatives, in-home placement was found to be a more successful approach to reduce the risk of recidivism for first-time juvenile offenders (Ryan et al., 2014). Additionally, Wilson and Hoge (2013) conducted a meta-analysis study that investigated the effect of youth diversion programs on recidivism and found that diversion correlated significantly with reduced recidivism. Weaver and Campbell (2015) conducted a meta-analysis on the efficacy of aftercare programs for juvenile offenders to reduce recidivism. The study estimated that in the United States, more than 80,000 juveniles return to their communities after serving each year, and 50% of them are rearrested within 3 years (Weaver & Campbell, 2015). The findings suggested that well-implemented aftercare programs can substantially reduce the risk of juveniles recidivating and are specifically effective with older juvenile offenders with more serious violent crimes (Weaver & Campbell, 2015).

Research studies on diversion have suggested that outcomes were impacted by youth and family factors. For example, Nowakowski and Mattern (2014) examined distinct profiles of youth who were violent against a family member and how such

characteristics factored in the completion of a family violence diversion program. The study focused on the participants' sociodemographic and delinquency characteristics as predictors of program completion. The results revealed that two delinquency characteristics, having a prior violent arrest and skipping school, were factors affecting Family Violence Intervention Program completion (Nowakowski & Mattern, 2014). Nowakowski and Mattern stressed the importance of understanding the characteristics that prevent youth intervention success, specifically for social workers and other professionals working with these youth.

A study conducted by Loeb et al. (2015) examined how individual and familial variables predicted the completion of a diversion program. According to Loeb et al., prior research studies reported positive program outcomes, but only a few studies focused on the impact of participant variables as crucial in completing the program. Loeb et al. asserted that a thorough investigation of participant variables predictive of completing the program was needed and recommended that future research explore different diversion program agencies to increase generalizability. In the current study, specific youth factors/characteristics such as substance use and interpersonal stress, and family factors/characteristics such as undermined authority and relatedness and family discord, were examined in relationship with program completion. The main purpose of this study was to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012).

Literature Search Strategy

To locate past and current research studies related to the present study, I searched a wide range of electronic databases and internet sources. I used the Psychology Databases Combined Search, which contained multiple databases including PsycARTICLES, PsycBOOKS, PsycCRITIQUES, PsycEXTRA, and PsycINFO, in addition to conducting searches using ERIC, ProQuest, and Social Sciences. I also conducted searches using Google, Google Scholar, PubMed, and Medline (Keyword searches such as *program completion*, *substance use*, *interpersonal stress*, and *undermined authority and relatedness* addressed variables related to individual and family factors affecting treatment compliance.

When identifying the number of citations through database, internet, and internal article searches, duplicates are removed that resulted in filtered articles with single and multiple study sites. Search parameters included publication in a peer-reviewed journal, meta-analysis included, and publication date within the last 5 years. Participants were adolescents from 11 to 17 years old.

Theoretical Foundation

Family Systems Theory

The general principles of family dynamics relate to individual and family factors that can affect diversion program completion. A solid theoretical base is offered by family systems theory. Bowen developed the theory in the 1950s based on the general principles of family dynamics, viewing the family as an interconnected emotional unit, and observing patterns of family dysfunction through multifaceted interactions in the

family (Berg-Cross & Worthy, 2013). The fact that family dynamics have the potential to influence family-related factors such as the level of family support, living arrangements, and family dysfunction such as conflicts among family members, abuse, and neglect seems to justify the theoretical perspective of family systems theory.

Palombi (2016) conducted a study on separation and family systems theory and discussed several key points of Bowen's family systems theory. The theory explains the anxiety of separation as embedded in the family as a multigenerational unit, and it offers an understanding of how family systems adapt to stressful events (Palombi, 2016). Alarid et al. (2012) examined family factors that influence juvenile drug court program completion and the likelihood of rearrest using family systems theory; they found family support to be a significant predictor of both program completion and post program reduced recidivism. The same study examined both client behavior and parental support, and the conclusions drawn from evidence and results of the study suggested that family support was a significant predictor and crucial toward successful program completion (Alarid et al., 2012).

Eight Basic Concepts

An essential characteristic of Bowen's family systems theory is that its concepts are used to explain patterns of family interaction and changes in family functioning (Hall, 1980). Dr. Margaret C. Hall (1981) authored a book called *The Bowen Family Theory and Its Uses*, wherein she explored a range of applications of the Bowen family systems theory. Hall (1981) discussed the basic concepts of this theory as described in the following subsections.

Differentiation of Self

The way that individuals and groups differentiate themselves is based on the degree of distinction of self. Individuals with low self-esteem developed during childhood and adolescence may tend to develop a poor self-image and constantly seek acceptance and approval of others. An individual with a healthy, differentiated self may rely on others but be resilient when faced with conflict, criticism, and rejection.

Triangles

A three-person relationship system is considered as the building block of large emotional systems (Hall, 1981). Tension increases when patterns change in a triangle. For example, when everything is calm, two people in a triangle are comfortably close, and the third person in the triangle becomes isolated. When an inside person is pushed to an outside position, it becomes clinically problematic, as it can trigger depression or medical illness. For example, parents being focused on what is wrong with their child can affect a child.

Nuclear Family Emotional System

This concept describes four basic relationship patterns that refer to the attitudes and beliefs of individuals. The four basic relationship patterns are marital conflict, dysfunction in one spouse, impairment of one or more children, and emotional distance (The Bowen Center for the Study of the Family, 2018). The nuclear family includes single-parents, step-parents, and other nuclear family configurations. The forces that drive them primarily are part of the emotional system where problems develop in a family (The Bowen Center for the Study of the Family, 2018). Clinically problematic

symptoms usually develop when the level of family tension is high. For example, when a family encounters stress, the tension increases, and how symptoms progress relies on which of the four patterns are most active (Hall, 1981). The chance that symptoms will be severe or not depends on how a family adapts to stress.

Family Projection Process

This concept describes ways in which parents transfer their emotional problems to a child and can impair the way in which the child functions, which might result in developing clinical symptoms (The Bowen Center for the Study of the Family, 2018). Children inherit many problems from their parents through this process. Examples of these problems are needs for attention and approval, high expectations, blaming the self or others, feeling accountable for the happiness of others and vice versa, and acting on the impulse to release anxiety rather than processing it. If the family projection process is intense, the child fostering the behaviors can increase his or her vulnerability to symptoms that escalate to chronic anxiety (The Bowen Center for the Study of the Family, 2018). The three steps to the projection process are when the parent focuses on a child for fear that something is wrong with the child, the parent interprets the child's behavior as confirming the fear, and the parent treats the child as if something is wrong with the child (The Bowen Center for the Study of the Family, 2018). The projection process is considered as a self-fulfilling prophecy because the parents have perceived their child to have problems such as low self-esteem and try to fix them, and the child starts to believe that the child has problems. The parents involved in the projection

process invest more of their time in worrying and focusing on this child than they do on the child's siblings (The Bowen Center for the Study of the Family, 2018).

Emotional Cutoff

This concept pertains to individuals managing conflicts with their parents, siblings, and other family members by reducing or cutting off ties with them through moving away from their families for good or staying in touch but avoiding discussing family issues. The unresolved emotional issues may result in a family member feeling like a child because the parents make decisions for them, or a family member who lives with their parents feeling though they are under obligation to solve their conflicts, or a family member being angry because their parents do not seem to understand them (The Bowen Center for the Study of the Family 2018). A family member might try to come home, hoping that things will be settled, only to find that the old conflicts surface again. Both the parents and an adult child should keep their distance to avoid tension and anxiety.

Multigenerational Transmission Process

This concept describes the level of distinction between parents and their children repeated through generations and the differences are transmitted through relationships (The Bowen Center for the Study of the Family, 2018). The transmitted information relationally and genetically shapes the self. This process frequently results in one member among siblings becoming a little more "self," and another member becoming a little less "self" than the parents in nuclear family emotional systems (The Bowen Center for the Study of the Family, 2018). If one sibling's level of "self" is higher than another sibling's

level, one sibling's marriage may be more differentiated, and the other sibling's marriage may be less differentiated than the parents' marriage. The level of differentiation of one sibling to another sibling may impact the overall life functioning of the members in a multigenerational family that is, if individuals are highly differentiated or families contribute much to society in contrast to poorly differentiated individuals or families that are unstable and rely heavily on others for support.

Sibling Position

This concept was incorporated from psychologist Walter Toman's work, which describes the impact of sibling position. Toman posited that individuals in the same sibling position predictably have common characteristics (The Bowen Center for the Study of the Family, 2018). For example, oldest children tend to be leaders, and youngest children tend to be followers. They complement each other rather than oppose one another. Another example is that the oldest child's leadership style typically differs from that of the youngest. Siblings in the same position also operate on a different level. For example, an anxious oldest child may be confused or indecisive and highly responsive to expectations; the younger sibling may take the role of a functional oldest to fill a void in the family.

Societal Emotional Process

This concept pertains to how the emotional system governs behavior on a societal level and the importance of cultural forces in the way that a society functions, but it fails to explain how societies adapt when faced with challenges (The Bowen Center for the Study of the Family, 2018). This concept contributes to Bowen's first clue on the

relationship between familial and societal emotional functioning, which came from treating families with juvenile delinquents (The Bowen Center for the Study of the Family, 2018). Bowen discovered that in the 1960s, the juvenile court system blamed parents for juvenile delinquency. The juvenile courts imposed reduced consequences to juveniles, hoping for a behavior change. However, if delinquent youth reoffended frequently, those in the legal system became disappointed and imposed harsh penalties, much like the parents.

Family Systems Theory in Juvenile Diversion Programs

The application of family systems theory is based on Bowen's principle that the family, not the individual, affects the emotional functioning of every family member that any change in one family member influences or affects the emotional functioning of other family members (The Center for Family Systems Theory of Western New York, 2022). For example, a member of a family may refuse therapy or may go to treatment because of family pressure. If one member of a family wants to change their level of functioning, then the whole family will improve its operation in support of that one person's ability to change (The Center for Family Systems Theory of Western New York, 2022). The theory explains that family therapy is not necessarily counseling with the whole family, but a relationship between a therapist and one family member who wants to change their emotional functioning. Thus, the application of the family systems theory will help in analyzing youth and family variables as an emotional unit. Youth factors such as substance use and interpersonal stress and family variables such as undermined authority

and relatedness are the changes or occurrences in the emotional functioning of one member of the family that might predict juvenile justice program completion.

A study conducted by Scott et al. (2018) examined independent dyadic effects among family members such as mother-child, father-child, child-parents, and mother-father relations from early to middle childhood using family systems theory. The study examined children and parents over 6 years to address the assumptions of a transactional, family-systems approach and found that family members' behavior involved bidirectional dyadic relations between pairs of family members and were more complex with family groups of three (Scott et al., 2018). For children and only one parent (usually the mother), when observed dyadically, it was unclear if the mother's parenting alone reflected the child's development, or if it was similar if it was the father's parenting or from both parents. The study mentioned that in studies that have included both parents, the father's parenting toward children has rarely been examined, and usually it is the father's behaviors with mothers or the marital relationship (Barnett et al., 2008, as cited in Scott et al., 2018). Stroud et al. (2015, as cited in Scott et al., 2018) asserted that research shows that poor marital relations predict poor parenting. The result of the study provided empirical support for the idea that the behavior of family members results from a system of interdependent relations over time (Scott et al., 2018).

Goldsmith et al. (2016) discussed the family and relational disorders, describing families based on the quality of their interactions and how they operate that characterizes their systems. Boundary clarity among family members was found to be the highest indicator of overall family functioning (Minuchin, 1974, as cited in Goldsmith et al.,

2016). Goldsmith et al. reviewed the important types and systems of family disorders, building on family systems theory.

The Beavers model, assessed families based on two dimensions, differentiating each type of family (Goldsmith et al., 2016, p. 3). First, functional families show a balanced family-style (p.3). Next, the dysfunctional families may be either centripetal (families rely solely on the family itself) or centrifugal (family members get little support from each other, and they lack appropriate boundaries) (Goldsmith et al., 2016, p. 3). Lastly, the severely dysfunctional families share some basic qualities such as poor boundaries or unable to work out a problem (p. 3).

The Olson circumplex model described the family functioning as a dimensional system that categorizes families as a whole based on their overall balance across three dimensions of functioning (Goldsmith et al., 2016, p.4). The cohesion dimension described each family member as to how they empathize with each other from being disengaged to being involved (Olson, 2000, as cited in Goldsmith et al., 2016, p. 4). The core principle of Olson's model is that families are capable of changing when faced with life events.

The McMaster model identified the measure of a family function or dysfunction in terms of the respective functioning on six dimensions such as finding solutions to complex issues or problem-solving, communication, responsibilities, response with feelings, emotional involvement, and behavioral control (Goldsmith et al., 2016, p. 4). Among the six dimensions, the problem-solving and behavioral control might relate to youth and family factors that contribute to program completion, as they pertain to the

family's finding solutions to complex issues (problem-solving), and the ability to control its members from internal and external dangers (behavioral control) (Goldsmith, et al., 2016, p. 4).

Literature Review Related to Key Variables and Concepts

History of Juvenile Justice System

Over the last two centuries, juveniles were treated harshly along with adult offenders, with no consideration as to how it will affect them cognitively and emotionally until the first juvenile justice system was created in 1899, which separated youth offenders from the adult system (Thompson & Morris, 2016). The initial juvenile justice system eventually paved the way to a more rehabilitative approach when it comes to youth offenders given their moral, intellectual, social, emotional, and developmental immaturity, and provided the juveniles with more legal rights (Thompson et al., 2016).

The history of the juvenile justice system has evolved since the last two centuries after its founding, and during the past few decades, the court processes, rights provided, and consequences started to mirror the adult system that resulted in more youth being detained, and more juveniles were transferred to adult courts (Thompson et al., 2016).

Abrams (2013) conducted a study about the juvenile justice system and discussed how the system has strayed from its mission of rehabilitation, which helped to catalyze the already growing concern and a vocal campaign for large-scale policy reforms. The reform movement concerning juvenile justice used scientific and evidence-based practice to address their arguments and come up with a cost-effective, humane, and youth-specific system to deal with youth crime (Abrams, 2013). The same study suggests the role of

social workers as an essential factor concerning making changes in the juvenile justice law, policy, and practice from the current one.

The rising delinquency rates happened in the 1960s and early 1970s that led to crucial Supreme Court decisions of children's rights to due process in juvenile delinquency proceedings such as entitlement to legal protections, the rights to receive notice of the charges, to obtain counsel, to confrontation and cross-examination, and the rights to refuse self-incrimination (Abrams, 2013). Diversion programming became another historical argument within the juvenile justice system, and the implementation of diversion programs was a vital component of juvenile's rights reform in the juvenile justice system.

The focus on public opinion addressing the treatment of juvenile offenders has progressed by creating a program that would divert youth from locked facilities into community-based treatment options or also known as diversion program (Kretschmar et al., 2015). Within the juvenile justice system, one of the definitions of diversion is "unofficial" processing of a youth's case, in which punishments are less severe, they sign up and receive ancillary services such as mental health treatment to address the problems and symptoms of behavioral issues, which is handled by a mediator and mental health professionals to resolve the case (Kretschmar et al., 2015).

The Juvenile Justice Diversion Program

The Center for Children's Law and Policy and supported by the John D. and Catherine T. MacArthur Foundation published a report in 2008 on Americans supporting the juvenile justice diversion program to rehabilitate youth than incarcerate them

(Kretschmar et al., 2015). Results of the surveys indicated that those at-risk youth can change and that the government funds should be used for counseling and education and other related treatment services (Kretschmar et al., 2015). These feasibility studies made their way to Congress, where representatives advocated for juvenile justice reform and approved the sentencing reform, reducing or eliminating solitary confinement, and other alternatives to incarceration.

Results from most of the juvenile diversion programs evaluations were positive, and the focus on recidivism as the heart of the program found that youth who participated in diversion programming had reduced chances to recidivate again. The diversion programming cut the rising costs of youth incarceration as based on the estimated yearly value of juvenile detention on a national level is over \$1 billion or the typical detention center costs between \$150 and \$300 per detention bed per day (Kretschmar et al., 2015).

Clough et al. (2008) conducted a study on the promising performance of a juvenile justice diversion programming in remote Aboriginal communities, northern territory in Australia, and stated that Indigenous people in Australia remain over-represented by juvenile justice discussed the recommendation of the court for Indigenous Australian youth to participate in diversion programming as an alternative to incarceration.

As of 2008, there were no evaluations of such programs have been published, and the study used the early outcomes from 2003 to 2006 in remote Indigenous community residents of 35 youth people aged 11-18 years who committed recidivism (Clough et al., 2008). The study discussed the difficulties of implementing diversion programs in such

remote Indigenous communities, and results found early signs of success rates in recidivism through the initiative and help gained in the communities to achieve and sustain diversion programs.

There are various studies related to different factors affecting treatment completion of diversion programs for young juveniles and their families. The individual and familial variables that might predict the completion of a diversion program were discussed next.

Juvenile Justice Program Completion

Diversion programs are viable alternatives to some of the problems related to social, legal, and mental health (FDJJ, 2012). The FDJJ launched a program called “Florida Redirection,” which aims to redirect troubled youth from incarceration or residential placements (EBA, 2016). Florida Redirection uses an MST approach. Henggeler, Melton, Brondino, Scherer, & Hanley, 1997; Schaeffer & Borduin, 2005; Timmons-Mitchell et al., 2006 (as cited in Belciug et al., 2016 found that participants in juvenile programs who have received MST had reduced recidivism and re-arrest rates, and had improved family, school, and social functioning.

Ryan et al. (2014) used propensity score matching and survival analysis to study the risk of recidivism for youth who committed a minor crime for the first time and were placed in three different diversion alternatives such as in-home probation, group-home placement, or probation camp. Among the three alternatives, in-home placement was found to be a more successful approach to reduce the risk of recidivism for first-time juveniles (Ryan et al., 2014). Mathur and Clark (2014) examined the challenges and

opportunities for youth who are successful in transitioning back to the community from juvenile justice. The study identified six evidence-based transition practices that are crucial for youth who are transitioning from the juvenile justice system (Mathur & Clark, 2014). The findings suggest that the reentry success of youth is through collaboration between juvenile justice personnel and community partners, and this is only possible when local community partners have common goals, beliefs, and awareness to embracing the youth after release from secure care.

Belciug et al. (2016) discussed the effects of goal commitment and solution building, employing strengths-based, goal-setting approaches as predictors of high engagement among at-risk youth in juvenile programs. Belciug et al. explained that strength-based, goal-focused approaches had been successfully used by mentoring programs, interventions, and self-help groups but not in juvenile diversion programs in reducing recidivism in first-time offenders.

Substance Use

The excessive use of alcohol and drugs is considered substance use. Johnson et al. (2014) examined the relationship between parent-child relationships and substance use. The study discussed the strengthened bonds between parents and adolescents by spending time together, treating each other with respect, care, and love, and supporting each other. Because of this strengthened bond, parents affect their adolescents' decision-making process and the choices they make, either positive or negative, depends on how the parents influence the adolescents. For example, an adolescent who had experienced psychological violence used more tobacco than an adolescent who was not exposed to

psychological violence, with females were found to use alcohol (McBride et al., 2014). Whereas, a strong positive bond between parents and children indicates a decreased likelihood of substance use of the children. Results indicated an inverse correlation between support in parent-child relationships and teen substance use (Johnson et al., 2014).

Vander Kooi (2015) examined a Michigan county's prosecutor's drug and alcohol diversion program and its impact on recidivism rates. The study aimed to provide an alternative to the court's intervention, addressing the recidivism rates of at-risk youth who have been in the program. The variables that predict recidivism were studied and the results found that those juveniles who were rearrested for drug offenses recidivated at a 30% rate and 15% rate for an alcohol offense (Vander, 2015).

A study conducted by Soloski, and Berryhill (2016) examined gender differences-emotional distress as an indirect effect between family cohesion and adolescent alcohol use. This study explored the effect of family cohesion on the development of emotional distress and alcohol use using family systems theory. Results found no association between emotional distress and adolescent alcohol use through family cohesion (Soloski et al., 2016). The analysis indicated though that gender differences are linking family cohesion related to female adolescents' self-report emotional distress, with the males' reported emotional distress to alcohol use (Soloski et al., 2016).

Lippold et al. (2018) examined the two types of change in parenting behaviors towards their children were found to be associated with risky youth behavior. This longitudinal study investigated two types of change in parental warmth and hostility

toward their children during early adolescence across Grades 6 to 8, developmental trends, and lability affect parent-youth relationships, and how the associations of these changes were linked to 9th graders adolescents' substance use and delinquency (Lippold et al., 2018). The study reported lability associated with youth with hostile parents, with moderate levels of lability were associated with higher substance use but very low, and high lability was associated with relatively lower rates of substance use (Lippold et al., 2018). It is noteworthy that the linkages between lability and youth delinquency were found significantly with girls than boys. Results revealed that the higher lability in youth's reports of fathers' warmth and hostility were factors associated with youth engaging in risky behavior. Whereas, the mother models revealed that even with controlled baseline levels of youth outcomes, the results indicated a positive linear relationship with polysubstance use initiation and tobacco use, and with the greater lability predicted a higher substance use (Lippold et al., 2018). Overall, this study confirms similar results to other studies that family relationships and interaction patterns are likely to change during early adolescence, which are factors to youths' changing development needs (Cox & Paley, 1997 as cited in Lippold et al., 2018).

Interpersonal Stress

The behavioral history, school/social issues, and academic performance pertain to interpersonal stress. Three areas of psychosocial functioning associated with interpersonal stress among youth are related to the sample questions about attitudes/behaviors, aggression, current school/social issues, and academic performance (Clarke, 2006). Schleider et al. (2015) examined family variables such as parental

psychopathology and family dysfunction as predictors of treatment outcomes for anxious youth. The study employed multiple mediation techniques used to test both suppression and mediation effects to examine the three familial variables that predict treatment response for anxious youth (Schleider et al., 2015). Cobham et al. (1998, as cited in Schleider et al., 2015) found that anxious youths with an anxious parent showed improvement and responded more favorably to group cognitive-behavioral therapy (CBT), while anxious youths without a depressed mother responded more favorably to individual CBT. Parents of anxious youths responded to a 14-item parent questionnaire assessing perceptions of a family functioning two weeks prior, and results scored higher perceived family dysfunction (Schleider et al., 2015). The results of the study indicated that improvements in family functioning and reductions in caregiver strain predict positive posttreatment for youths with anxiety (Schleider et al., 2015). Nowakowski and Mattern, (2014) posit that two delinquency characteristics such as having a prior violent arrest and skipping school are factors affecting program completion.

Hughes and Gullone (2008) examined the internalizing symptoms and disorders on the functioning of the family system, the spouse subsystem, and the parent-child subsystem using a family systems framework. This study reviewed prior research which linked internationalizing symptoms and disorders to poorer functioning at various levels of the family system (Hughes & Gullone, 2008). Internalizing symptoms and disorders include mood or emotion disturbance related to both depression and anxiety and the reported estimated rates to be higher among adolescents (Kessler, Avenevoli, & Merikangas, 2001 as cited in Hughes & Gullone, 2008). Findings revealed that parent and

adolescent internalizing symptoms and disorders were associated with poorer functioning at various levels of the family systems, which include poorer functioning in the overall family system, poorer marital relationships, poor parenting skills, poorer parenting attachment, and higher rates of mental or behavioral disorder of parent and child (Hughes & Gullone, 2008).

Brière et al. (2013) examined the associations between depressive symptoms and perceived relationships with parents in early adolescence, including the two important aspects of parent-child relationships: communication and conflict. This study discussed the effects of difficult family relationships on adolescent mental well-being. The study discussed how adolescents with depression tend to experience various types of relational impairments that usually involve family members, and based on direct observations, parent reports, and self-reports have shown that depression among adolescents is related to a poor relationship with parents, lack of support and communication, and conflict with family members (Briere et al., 2013). Results found reciprocal prospective associations between depressive symptoms and perceived conflict with parents, but no evidence was found associating between depressive symptoms and communication with parents (Briere et al., 2013).

Ponappa et al. (2017) investigated the family systems theory of triangulation, parental differential treatment, and sibling warmth as predictors of depressive symptoms among college-aged individuals using Bowen theory as a framework. The study discussed the cases of major depressive disorder among teens in their 20s, with the prevalence in 18-19-year-olds being three times higher compared to 60 years or older

individuals (Ponappa et al., 2017). The study discussed a major life transition experienced by college students and adults once they leave their home and family, and the rate of college students diagnosed with depression and suicide as related to depression and the second leading cause of death on college campuses (Arnett, 2000; Conger & Little, 2010; American College Health Association, 2008; Mahmoud, Staten, Hall, & Lennie, 2012; Cukrowicz et al., 2011, as cited in Ponappa et al., 2017). This study posited that the family systems therapy involving multiple family members might be an effective treatment for this population but cited a lack of studies examining family systems therapy models in the treatment of adult depression (Hollon et al., 2006 as cited in Ponappa et al., 2017). Results found evidence that perceptions of family processes and the quality of sibling relationships were linked to depressive symptoms among college-aged individuals, stating that each sibling's experience of triangulation into parental conflict was positively associated with their perceptions of parental differential treatment (PDT).

Undermined Authority and Relatedness and Family Discord

Behaviors associated with high levels of hostile adolescent-parent conflict may affect adolescents' efforts in establishing autonomy and relatedness in interactions with parents. Richmond and Stocker (2006) conducted a study on the associations between family cohesion and adolescent siblings' externalizing behavior, in which the study focused on family cohesion as a measure of whole family functioning. This study collected samples from 93 families that consist of mothers, fathers, and two adolescent siblings, and measured family cohesion through observations from videotaped behaviors of parents and two of their adolescent siblings (Richmond & Stocker, 2006). Findings

revealed that hostility in parent-child relationships was correlated with adolescents' externalizing problems, which supports the general principles of family systems theory that the whole family functioning is an interconnected emotional unit and any family dysfunction may implicate adolescents' behavioral problems (Berg-Cross & Worthy, 2013).

Goldsmith et al. (2016) discussed the family and relational disorders describing families based on the quality of their interactions and how they operate that characterize their systems. Boundary clarity among family members was found to be the highest indicator of overall family functioning (Minuchin, 1974, as cited in Goldsmith et al., 2016). Goldsmith et al. (2016) reviewed the important types and systems of family disorders building on family systems theory. The Beavers model, assessed families based on functional families have a balanced family system, dysfunctional families are either relying solely on the family itself or getting little support from each other and lacking appropriate boundaries, and severely dysfunctional families sharing some basic qualities such as poor boundaries, or unable to work out unresolved issues (Goldsmith et al., 2016, p. 3). The Olson circumplex model described each family member as to how they empathize with each other from being disengaged to being involved (Olson, 2000, as cited in Goldsmith et al., 2016, p. 4), and flexibility when faced with life events. The McMaster model identified the measure of a family function or dysfunction in terms of the respective functioning on six dimensions such as finding solutions to complex issues or problem-solving, communication, responsibilities, response with feelings, emotional involvement, and behavioral control (Goldsmith et al., 2016, p. 4). The problem-solving

and behavioral control might relate to youth and family factors that contribute to program completion, as they pertain to the family's finding solutions to complex issues (problem-solving), and the ability to control its members from internal and external dangers (behavioral control) (Goldsmith, et al., 2016, p. 4).

A study conducted by Slesnick and Zhang (2016) on substance-using mothers and their 8- to 16-year-old children found that family systems therapy has shown a strong intervention when the focus is on improving the mother-child relationship and communication. Findings revealed the efficacy of family therapy as evidenced by a quicker decline in alcohol, marijuana, and cocaine use for substance-using mothers with minor children in their care (Slesnick & Zhang, 2016). The same study also observed the relationship between change in autonomy-relatedness and substance use as nonsignificant.

A study conducted by Zhang and Slesnick (2017) examined the discrepancies in autonomy and relatedness promoting behaviors of substance-using mothers and their children, and the effects of a family systems intervention. The study investigated how parents' and children's autonomy and relatedness behaviors jointly affect child outcomes through the longitudinal trajectory of mother-child discrepancies in autonomy and relatedness behaviors (Zhang & Slesnick, 2017). Results found evidence of decreased mother-child discrepancies and synchronous increases in mother-child autonomy and relatedness through participation in the family systems therapy and increased mother-child discrepancies and mother-child dyads showing no change in autonomy and

relatedness was associated with children's higher levels of problematic behaviors (Zhang & Slesnick, 2017).

Summary

The first juvenile justice system was created in 1899, which separated youth offenders from the adult system and paved the way to a more rehabilitative approach that provided the juveniles with more legal rights (Thompson et al., 2016). In 2008, The Center for Children's Law and Policy and John D. and Catherine T. MacArthur Foundation published a report in support of the juvenile justice diversion program to rehabilitate youth than incarcerate them (Kretschmar et al., 2015). The said published report paved the way for Congress to approve the reform that includes the sentencing reform, reducing or eliminating solitary confinement, and other alternatives to incarceration.

Research studies on diversion suggest that outcomes are impacted by youth and family factors (Loeb et al., 2015). The general principles of family dynamics seem to relate to individual and family factors such as substance use, interpersonal stress, undermined authority and relatedness, and family discord, which may affect diversion program completion has a solid theoretical base offered by Family Systems Theory. The application of the Family Systems Theory is based on the principle of Bowen that the family, not the individual, is the emotional functioning of every family member, that any change in one family member influences or affects the emotional functioning of other family members (The Center for Family Systems Theory of Western New York 2022).

Three important types and systems of family disorders building on family systems theory were identified differentiating each type of family (Goldsmith et al., 2016). The Beavers model, Olson's circumplex model, and the McMaster Model. Among the three models, the McMaster model identified the measure of a family function or dysfunction in terms of the respective functioning on six dimensions such as finding solutions to complex issues or problem-solving, communication, responsibilities, respond with feelings, emotional involvement, and behavioral control (Goldsmith et al., 2016, p. 4). Among the six dimensions, the problem solving and behavioral control might relate to the current study related to youth and family factors that contribute to program completion, as they pertain to the family's finding solutions to complex issues (problem-solving), and the ability to control its members from internal and external dangers (behavioral control) (Goldsmith, et al., 2016, p. 4).

Chapter 3: Research Method

Introduction

The main purpose of this study was to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). Prior research studies focused on the effectiveness of diversion programs and factors that predict treatment completion. Research studies on diversion suggest that outcomes are impacted by youth and family factors. For example, a study conducted by Loeb et al. (2015) examined how individual and familial variables predict the completion of a diversion program. According to Loeb et al., prior research studies reported positive program outcomes, but only a few studies focused on the impact of participant variables as crucial in completing the program. Loeb et al. asserted that a thorough investigation of participant variables predictive of completing the program is needed and recommended for future research to explore different diversion program agencies to increase generalizability. In the current study, specific youth factors/characteristics such as substance use and interpersonal stress, and family factors/characteristics such as undermined authority and relatedness and family discord, were examined in relationship with program completion.

Method of Study

Research Design

The current study used a quantitative, nonexperimental research design. Quantitative research is a methodical approach to explain an observable phenomenon via the gathering of numerical data and generalizing these data across groups of people

(Babbie, 2010). Polls, questionnaires, and surveys are collected to emphasize the measurements and the statistical, mathematical, or numerical analysis of data (Babbie, 2010). Logical positivism is a school of thought that supports that all understanding is gained through direct observation and logical inferences based on direct observation (Rudestam & Newton, 2015). Social scientists seek to study human beings in an impartial manner; this approach is derived from their fondness for the natural sciences and desire to understand nature by isolating phenomena through observation and applying mathematical laws to explain patterns (Rudestam & Newton, 2015). Statistical methods are useful tools to look into relationships and patterns, and these patterns are expressed with numbers (Rudestam & Newton, 2015). Both descriptive and inferential statistics are used when analyzing results and drawing conclusions (Laerd Statistics, 2018).

There are four types of quantitative research designs: experimental, quasi-experimental, descriptive, and correlational. Experimental designs, also called *true experimentation*, use the scientific method to establish a cause-effect relationship among a group of variables, with all variables controlled except the one being manipulated, also known as the independent variable (Center for Innovation in Research and Teaching, 2018). The common study designs for experimental designs are classic experimental designs, randomized designs, crossover designs, and nested designs. A quasi-experimental design is similar to the cross-sectional design in that both have lower internal validity than experimental designs, the method of control is dependent on statistical data analysis techniques, and the independent variable is manipulated (Frankfort-Nachmias & Nachmias, 2008). The common study designs for a quasi-

experimental design are pre- and post-test designs, posttest-only designs, and interrupted time-series designs. In descriptive design, the key focus is describing the current status of a variable or phenomenon, the variables are not controlled, the hypothesis develops as data are collected, and data collection is observational (Center for Innovation in Research and Teaching, 2018). Common designs for descriptive studies are comparative descriptive designs, cross-sectional designs, and longitudinal designs. A correlational design involves exploring and observing relationships between properties and dispositions, and variables are not controlled (Center for Innovation in Research and Teaching, 2018). The common study designs for correlational design are descriptive correlation designs, predictive designs, and model-testing designs.

Nonexperimental Research

This study used a nonexperimental research design. Nonexperimental research is research that does not involve an independent variable that can be manipulated or in which participants are not randomly assigned to a control or treatment group, or both. Because of this type of level of control, any causal effects cannot be determined. For example, how strong or weak B is because of how A worked is how causal effects are determined. Nonexperimental research can be just as interesting as experimental research, but the same conclusions cannot be drawn from these types of research (Laerd Statistics, 2018). Employing this design might limit its internal validity, but it does not make it less important or inferior (Price et al., 2019). When conditions in experimental research are not met, where assigning individuals to either a control or an experimental group might

be unethical or impossible, employing nonexperimental research is preferred (Frankfort-Nachmias & Nachmias, 2008).

Nonexperimental research can be applied in four ways. First, the research question or hypothesis can be about a single variable. Second, the research question can be about a noncausal relationship between two variables. Third, the research question can be about a causal relationship, but there is a lack of manipulation of an independent variable, or assigning individuals to conditions or order of conditions might be unethical or impossible. Lastly, the research question can be broad or exploratory, or to know what it is like to experience a particular event or situation (Price et al., 2019). Choosing the nonexperimental approach is based on the nature of the research question.

There are two types of nonexperimental research, namely descriptive and correlational. This study used a correlational nonexperimental research design.

Correlational Research

In correlational design, two variables are measured with no intention to control extraneous variables and then to assess a clear correlation between them (Price et al., 2019). Correlational research is lowest in internal validity because it fails to address either problem due to lack of manipulation and the control of extraneous variables through random assignment (Price et al., 2019). There are two reasons why a researcher might choose correlational research over descriptive: First, the statistical relationship is thought to be not causal. Second, the statistical relationship is thought to be causal, but the independent variable cannot be manipulated because it would be unethical or impossible to do so (Price et al., 2019). The defining characteristic of correlational

research is that two variables are measured but neither one is manipulated. The study used a correlational nonexperimental research design.

Sampling

The main source of data was records of archived cases obtained from the FDJJ database of the diversion program in the state of Florida (EBA, 2016). The pilot program was launched in 2004 by the FDJJ contracted with EBA, which aims to redirect troubled youth from incarceration or residential placements (EBA, 2016). A report submitted by the OPPAGA dated April 2010 (Report no. 10-38) showed that a total of 3,956 youth qualified for a diversion program, and of these, 2,821 successfully completed the program in December 2009 (EBA, 2016). In 2013, the FDJJ took over the program with more than 10,000 youth and families qualified for the diversion program (EBA, 2016). Participants for the current study were young adolescents from age 11-17 charged with a minor crime in the state of Florida, who were referred for diversion and supervised by a Juvenile Probation Officer who monitored compliance (FDJJ, 2012). Minimum sample size for the multiple regression was estimated using the equation $N = 104 + 8m$, where m is the number of three predictors (Green, 1991). The minimum sample size is 128 and the final sample is 7,068.

Instrumentation

Positive Achievement Change Tool (PACT)

Measures for the variables of the present study were selected from the Positive Achievement Change Tool (PACT), which promoted standard measurement across all programs used throughout the FDJJ and determined youths' risk/needs assessment (FDJJ,

2012). The new assessment called the PACT was adapted from the Washington State Juvenile Court Assessment, BackOnTrack! (Baglivio, 2013). A study conducted by the Florida Research Center involved a three-phase evaluation of the validity and reliability of the PACT, which has 12 domains (Winokur-Early et al., 2012). The PACT Full Interview Guide assessment instrument was used when conducting the initial interview with the youth (FDJJ, 2012). Phase I examined the accuracy of the PACT that identified risk-level subgroups juveniles that predicts recidivism; Phase II examined the criminal history and social history scales to assess the utility and parsimony of PACT scoring; and Phase III examined the interrater reliability where different raters give consistent scores (Winokur-Early et al., 2012). The findings of the study are discussed next.

First, phase I-PACT validation used bivariate and multivariate analyses on 80,192 sample participants that were released between the fiscal year 2008 and 2009 for all juvenile offenders and subsamples in Florida and used the PACT instruments to test its validity. The study found that the PACT overall scores were significant to recidivate based on re-offending level and criminal history (Winokur-Early et al., 2012). The results covered the general delinquency population in Florida and the subsamples, consistent for gender, race, and ethnicity. High-risk-level youth were found to recidivate more than low-risk level youth, which was consistent for gender, race, ethnicity, and all four age categories (Winokur-Early et al., 2012). Using area under the curve (AUC) statistics, the rearrest scores for female non-White participants ranged from .614 to .632, and the scores for male-only participants ranged from .632 to .630, and therefore supported that the PACT risk level classifications predict youth to recidivate irrespective of gender, race,

ethnicity, or age (Winokur-Early et al., 2012). The PACT found overall risk to recidivate as significant for youth who were released and placed on probation from diversion program services to residential commitment and aftercare program commitment services. When race, gender, and age at release were controlled, the PACT scores for both criminal history and social history for youth released from residential and postcommitment services were consistent predictors of recidivism. Social history scored higher than criminal history for youth placed for diversion and probation releases, while criminal history scored higher than social history for youth released from residential and aftercare program commitment services (Winokur-Early et al., 2012). There were no significant scores found for the social history of predicting recidivism for youth released from specific day treatment placement and low-risk services.

Second, Phase II-PACT factor analysis used confirmatory factor analysis and exploratory factor analysis to assess the criminal history and social history scales and found that the questions related to criminal history scored high in internal consistency ($\alpha = 0.706$), measuring prior delinquency involvement (Winokur-Early et al., 2012). Using confirmatory factor analysis, the criminal history score questions covered four groups of offenders with different risk levels at 64% of the variance, such as low-level misdemeanor, high-level felonies, serious histories of escape, detention, and commitment, and weapons offenses. (Winokur-Early et al., 2012). The questions used in the PACT social history scored lower in internal consistency than the criminal history score ($\alpha = 0.541$), which suggested greater diversity of what was being measured (Winokur-Early et al., 2012). Using confirmatory factor analysis, the social history scale

came up with three unique groups that accounted for 45% of the variance, and these were defiant youth displaying problematic symptoms of behaviors in multiple settings, girls with mental health disorders due to abuses or having abandoned home, and youth who were neglected, abused, or placed in foster care or welfare (Winokur-Early et al., 2012). The overall findings revealed that the PACT criminal history scored higher in internal consistency than the social history score scale.

Third, Phase III, PACT inter-rater reliability measured the scores of the criminal history and social history items and assigned staff raters to observe two videotaped PACT interviews of female youth and male youth, then completed a full assessment for each youth using the PACT instrument. Staff raters' assessments and the department-designated master rater assessments were then compared, and the findings revealed a nine out of 10 strong agreement among raters measuring the two juveniles' histories of sexual abuse, neglect, and mental health issues (Winokur-Early et al., 2012). Staff raters assessed the male juvenile as 90% and higher strong on social history indicators such as out-of-home placements, running away or being kicked out of the home, physical or sexual abuse, neglect, and mental health issues (Winokur-Early et al., 2012). Staff raters were less consistent in scoring the female juvenile than the male juvenile based on social history indicators such as out-of-home placements, running away from parental authority and control, and substance use (Winokur-Early et al., 2012). Based on the review of the videotaped PACT interview with the female juvenile and the individual rater responses, future examination is warranted, as there was confusion in the history of youth running away who failed to return within 24 hours and for over 6 months (Winokur-Early et al.,

2012). Inter-rater agreement scored low in parental authority/control indicator due to ambiguity as to how raters rate parents who fails to enforce rules, and this problem may be addressed by defining the response elements of “obeying rules” and “being hostile” through PACT instructions (Winokur-Early et al., 2012).

Data Collection Procedure

The current study used secondary data through records of archived cases obtained from the FDJJ database (FDJJ, 2012). To gain permission to use the data for this study, received written approval from the FDJJ Institutional Review Board (IRB) for all individualized youth information (FDJJ, 2012). Next, I provided the FDJJ with the details of the data requested such as a “description of the information required, data variables specific to the research request, analytic approach, relevance to the juvenile justice field, and projected time frames for completion” (FDJJ, 2012). Lastly, upon approval of the data request, the data were culled from the archival records of the FDJJ provided by an analyst on a spreadsheet to me with all identifying information removed. I was not given direct log-in privileges to the FDJJ database. Confidential data were stored on an external hard drive in a locked office, and only I had access to the data. The data will be destroyed after 7 years when the dissertation requirements are determined to be complete.

Data Analysis

Univariate data analysis was used for the current study that described the participants, collected the data, then summarized the data. Bivariate data analysis described the relationship between program completion and the four variables: substance abuse, interpersonal stress, undermine authority and relatedness, and family discord.

Logistic regression analysis was used for the current study, as the variables were reported as dichotomous. Logistic regression described the data and explained the relationship between one binary dependent variable and several independent binary variables. Using nominal scales in SPSS, a multinomial logistic regression analysis was used, as there were several independent variables measured on different scales, and the dependent variable was nominal. The survey method for the study used the dichotomous questions on a questionnaire that asked for a “Yes” or “No” response.

Ethical Considerations

The present study involved a quantitative approach using secondary data in a nonexperimental design to explore youth and family factors and characteristics associated with program completion for participants in a diversion program (FDJJ, 2012). I applied and adhered to all institutional guidelines, such as those of the Walden IRB (Approval number 07-01-20-0540037). The main source of data collection was records review of archived cases obtained from the FDJJ office of Research and Data Integrity. The FDJJ has its own IRB, and the IRB director approved my request for data and access to data. Due to the archival nature of the data, restrictions were strictly followed to protect participant identities. An analyst provided the data on a spreadsheet to me with all identifying information such as names, addresses, places of employment, and any other descriptive information eliminated from the file summaries. I worked independently and declared no conflicts of interest (Pleiades Publishing, 2019). The present study did not have research participants involved; hence, no informed consent was needed.

Summary

A quantitative research design involves gathering numerical data and generalizing these data across groups of people or to explain a particular phenomenon (Earl, 2010). In quantitative research, the goal is to establish the relationship between an independent variable and a dependent variable. Polls, questionnaires, and surveys are collected to emphasize the measurements and the statistical, mathematical, or numerical analysis of data (Earl, 2010). There are four types of quantitative research designs, namely descriptive, correlational, experimental, and quasi-experimental. Quantitative research designs fall under one of two categories, namely experimental research and nonexperimental research. The proposed study was ideal for a nonexperimental design using secondary data as it described the data and explained the relationship between one binary dependent variable and several independent binary variables. Logistic regression analyzed the dichotomous variables for this study.

Chapter 4: Results

Introduction

The main purpose of this study was to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012).

RQ1: Do youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion?

H₀1: Youth factors/characteristics such as substance use and interpersonal stress do not predict juvenile justice diversion program completion.

H_a1: Youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion.

RQ2: Do family factors/characteristics such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion?

H₀2: Family factors such as undermined authority and relatedness and family discord do not predict juvenile justice diversion program completion.

H_a2: Family factors such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion.

Participants

Participants for this study included 7,068 for the fiscal year 2017-2018. The data were collected from the archival data of the FDJJ. All participants were part of a diversion services program in the state of Florida. Demographic information was collected that included race, ethnicity, age, and gender.

Descriptive Statistics

Table 1 displays the frequency counts for selected demographic variables. All 7,068 participants (100%) for the fiscal year 2017-2018 were part of a diversion services program, and 5,841 of them (82.6%) completed their program. The demographic categories included race, ethnicity, age, and gender, and the first- and second-largest categories were White male participants (1,951 or 27.6%) and Black males (1,902 or 26.9%). The second- and third-largest categories were White female participants (1,052 or 14.9%) and Black females (937 or 13.3%). The participants' ages ranged from 11-17 years. There were 6,457 participants (91.4%) who were considered to have a low risk level (see Table 1).

Table 1*Frequency Counts for Selected Demographic Variables*

Variable	Category	<i>n</i>	%
Type of placement	Diversion services	7,068	100.0
Completed program	No	1,227	17.4
	Yes	5,841	82.6
Race/ethnicity/gender	Black female	937	13.3
	Black male	1,902	26.9
	Hispanic female	355	5.0
	Hispanic male	832	11.8
	White female	1,052	14.9
	White male	1,951	27.6
	Other female	19	0.3
	Other male	20	0.3
Age at entry ^a	11 to 13 years	1,070	15.1
	14 years	1,045	14.8
	15 years	1,389	19.7
	16 years	1,599	22.6
	17 years	1,965	27.8
Overall risk level	Low	6,457	91.4
	Moderate	436	6.2
	Moderate-high	128	1.8
	High	47	0.7

Note. *N* = 7,068.

^a Age: *M* = 15.25, *SD* = 1.56.

Table 2 displays the frequency counts for the 15 youth and family factors/characteristics sorted from highest frequency to lowest frequency. The two highest frequency factors were problems with recent school attendance at 5,574 (78.9%) and history of antisocial friends at 4,920 (69.6%). The two lowest frequency factors were history of sexual abuse-rape (313 or 4.4%) and history of being a victim of neglect (430 or 6.1%; see Table 2).

Table 2

Frequency Counts for Youth and Family Factors/Characteristics Sorted by Highest Frequency

Youth and family factors/characteristics	<i>n</i>	%
Problems with recent school attendance	5,574	78.9
History of antisocial friends	4,920	69.6
History of drug use and related problems	3,118	44.1
Problem history of parental authority and control	3,016	42.7
Current drug use and related problems	2,443	34.6
History of alcohol use and related problems	1,675	23.7
History of mental health problems	1,241	17.6
History of traumatic experience	1,219	17.2
History of running away or getting kicked out of the home	988	14.0
Problem history of parents in a household	787	11.1
Current alcohol use and related problems	741	10.5
History of violence or physical abuse	551	7.8
History of out-of-home placements by court or DCF	517	7.3
History of being a victim of neglect	430	6.1
History of sexual abuse—rape	313	4.4

Note. $N = 7,068$. Total factors present: $M = 3.90$, $SD = 2.39$, range = 0 to 14 factors.

Table 3 displays the Spearman correlations for the 11 youth factors with program completion and shows significant correlations for 8 of 11 factors with program completion. The strongest individual correlations were for four factors, namely (a) history of drug use and related problems (-.08), (b) history of antisocial friends (-.07), (c) current drug use and related problems (-.06), and (d) history of mental health problems (-.06). There was a small negative correlation between the history of drug use and related problem and program completion ($r_s = -.08, p < .001$), which means that people without a history of drug use and related problems were more likely to complete the program. If 44.1% had a history of drug use and related problems, this means that 55.9% who did not have such problems were more likely to complete the program. There was a small negative correlation between a history of antisocial friends and program completion ($r_s = -.07, p < .001$), such that people without a history of antisocial friends were more likely to complete the program. If 69.6% had a history of antisocial friends, this means that 30.4% who did not have such a history were more likely to complete the program. There was a small negative correlation between current drug use and related problems ($r_s = -.06, p < .001$) and program completion such that people without current drug use and related problems were more likely to complete the program. There was a small negative correlation between a history of mental health problems ($r_s = -.06, p < .001$) and program completion such that people without a history of mental health problems were more likely to complete the program. Other youth factors are still significant because participants completed the program.

Table 3*Spearman Correlations for Youth Factors With Program Completion*

Factor	Completion ^a
Current drug use and related problems	-.06 ****
Current alcohol use and related problems	.00
History of drug use and related problems	-.08 ****
History of alcohol use and related problems	.00
History of mental health problems	-.06 ****
History of antisocial friends	-.07 ****
Youth's recent school attendance	-.04 ****
History of traumatic experience	.01
History of sexual abuse—rape	-.03 **
History of being a victim of neglect	-.05 ****
History of violence or physical abuse	-.05 ****

Note. $N = 7,068$.

This table supports Research Question 1.

^a Completed the program: 0 = *No* 1 = *Yes*.*

$p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Table 4 displays the logistic regression model using the 11 youth factors to predict program completion. The highest odds ratios were for two factors, namely (a) history of traumatic experience ($OR = 1.42$) and (b) history of alcohol use and related problems ($OR = 1.29$). The odds ratio indicates that those with a history of traumatic experience were 42% more likely than those without such a history to complete the program ($1.42 - 1$). The odds ratios indicate that those with a history of alcohol use and related problems were 29% more likely than those without such a history to complete the program ($1.29 - 1$). The lowest odds ratios were for two factors, namely (a) history of drug use and related problems ($OR = 0.66$) and (b) history of antisocial friends ($OR =$

0.69). The odds ratio indicates that those with a history of drug use and related problems were 34% less likely than those without such a history to complete the program ($1 - 0.66$). The odds ratio indicates that those with a history of antisocial friends were 31% less likely than those without such a history to complete the program ($1 - 0.69$). The overall model was significant, $\chi^2 (11, N = 7,068) = 138.31, p = .001$. The Cox and Snell statistic plus the Nagelkerke statistic were used to estimate the variance accounted for by the model. Using those statistics, the estimated variance accounted for was between 1.9% and 3.2%. The base classification model was 82.6%, and the final classification model was also 82.6%

Table 4

Logistic Regression Model Predicting Program Completion Based on Youth Factor

Youth factor	B	SE	p	OR	95% CI	
					Lower	Upper
Current drug use and related problems	-0.05	0.09	.58	0.95	0.79	1.14
Current alcohol use and related problems	0.09	0.13	.49	1.09	0.85	1.40
History of drug use and related problems****	-0.41	0.09	.001	0.66	0.55	0.79
History of alcohol use and related problems**	0.25	0.10	.009	1.29	1.07	1.56
History of mental health problems****	-0.34	0.08	.001	0.71	0.61	0.83
History of antisocial friends****	-0.37	0.08	.001	0.69	0.60	0.80
Youth's recent school attendance**	-0.22	0.08	.007	0.80	0.68	0.94
History of traumatic experience****	0.35	0.09	.001	1.42	1.18	1.70
History of sexual abuse-rape	-0.26	0.15	.09	0.77	0.57	1.04
History of being a victim of neglect***	-0.35	0.12	.005	0.71	0.55	0.90
History of violence or physical abuse****	-0.31	0.12	.007	0.73	0.58	0.92
Constant	2.22	0.09	.001	9.24		

Note. $N = 7,068$.

This table supports Research Question 1. Full model: $\chi^2 (11, N = 7,068) = 138.31, p = .001$.

Base classification model = 82.6%. Final classification model = 82.6%. Cox and Snell $R^2 = .019$,

Nagelkerke $R^2 = .032$. * $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Table 5 displays the Spearman correlations for the four family factors with program completion and indicates significant correlations for of factors with completion status. The strongest individual correlations were for two factors, namely (a) history of running away or getting kicked out of the home (-.12) and (b) problem history of parental authority and control (-.08). There was a small negative correlation between a history of running away or getting kicked out of the home and program completion ($r_s = -.12, p < .001$), such that people without a history of running away or getting kicked out of the home were more likely to complete the program. If 14.0% had a history of running away or getting kicked out of the home, this means that 88.0% who did not have such a history were more likely to complete the program. There was a small negative correlation between a problem history of parental authority and control and program completion ($r_s = -.08, p < .001$), such that people without a problem history of parental authority and control were more likely to complete the program. If 42.7% had a problem history of parental authority and control, this means that 57.3% did not have such a history and were more likely to complete the program. Furthermore, the sum of all factors that the participant had (total factors present) was negatively correlated with completion status ($r_s = -.11, p < .001$).

Table 5*Spearman Correlations for Family Factors With Program Completion*

Factor	Completion ^a
Problem history of parental authority and control	-.08 ****
Problem history of parents in household	-.04 ****
History of running away or getting kicked out of the home	-.12 ****
History of out-of-home placements by court or DCF	-.05 ****
Total factors present	-.11 ****

Note. $N = 7,068$.

This table supports Research Question 2.

^a Completed the program: 0 = No, 1 = Yes.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Table 6 displayed the logistic regression model predicting program completion based on the four family factors. Table 6 displays the logistic regression model using the four family factors to predict program completion. The highest odds ratios were for two factors, namely (a) problem history of parental authority and control (OR = 0.75) and (b) history of running away or getting kicked out of the home (OR = 0.53). The odds ratio indicates that those with a problem history of parental authority and control were 25 % more likely than those without such a problem to complete the program ($1 - 0.75$). The odds ratio that those with a history of running away or getting kicked out of the home were 47 % more likely than those without such a history to complete the program ($1 - 0.53$). The overall model was significant, $\chi^2(4, N = 7,068) = 116.64, p = .001$. The Cox and Snell statistic plus the Nagelkerke statistic were used to estimate the variance accounted for by the model. Using those statistics, the estimated variance

accounted for was between 1.6% and 2.7%. The base classification model was 82.6%, and the final classification model was also 82.6%.

Table 6

Logistic Regression Model Predicting Program Completion Based on Family Factors

Family factor	B	SE	p	OR	95% CI	
					Lower	Upper
Problem history of parental authority and control****	-0.29	0.07	.001	0.75	0.66	0.85
Problem history of parents in household	-0.18	0.10	.057	0.83	0.69	1.01
History of running away or getting kicked out of the home****	-0.64	0.08	.001	0.53	0.45	0.62
History of out-of-home placements by court or DCF	-0.21	0.11	.064	0.81	0.65	1.01
Constant	1.84	0.05	.001	6.31		

Note. $N = 7,068$.

This table supports Research Question 2. Full model: $\chi^2(4, N = 7,068) = 116.64, p = .001$.

Base classification model = 82.6%. Final classification model = 82.6%. Cox and Snell $R^2 = .016$,

Nagelkerke $R^2 = .027^* p < .05$. $** p < .01$. $*** p < .005$. $**** p < .001$.

Multivariate Statistics

Research Question 1 and Hypotheses

Research Question 1 was: Do youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion?

Table 3 displayed the Spearman correlations for the 11 youth factors with program completion, and Table 4 displayed the logistic regression model using the 11 youth factors to predict program completion. The 11 youth factors, namely: (a) current drug use and related problems, (b) current alcohol use and related problems, (c) history of drug use and related problems, (d) history of alcohol use and related problems, (e) history of mental health problems, (f) history of antisocial friends, (g) youth's recent school attendance, (h) history of traumatic experience, (i) history of sexual abuse-rape, (j).

history of being a victim of neglect, and (k) history of violence or physical abuse. To answer research question 1, these findings (Tables 3 and 4) provided support to reject the null hypothesis, and to support the alternative hypothesis.

Research Question 2 and Hypotheses

Research Question 2 was: Do family factors/characteristics such as undermined authority and relatedness and family discord predict juvenile justice diversion program completion?

Table 5 displayed the Spearman correlations for the four family factors with program completion and Table 6 displayed the logistic regression model using the four family factors to predict program completion. The four family factors, namely: (a) problem history of parental authority and control, (b) problem history of parents in household, (c) history of running away or getting kicked out of the home, and (d) history of out-of-home placements by court or DCF. To answer research question 2, these findings (Tables 5 and 6) provided support to reject the null hypothesis, and to support the alternative hypothesis.

Summary

In summary, archival data for 7,068 participants were used to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). Hypothesis 1: Youth factors/characteristics such as substance use and interpersonal stress predict juvenile justice diversion program completion was supported (see Tables 3 and 4). Hypothesis: Family factors such as undermined authority and relatedness and family discord predict

juvenile justice diversion program completion was also supported (see Tables 5 and 6). In the final chapter, these findings will be compared to the literature, conclusions, and implications will be drawn, and a series of recommendations will be suggested.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of the current quantitative study was to investigate youth and family factors and characteristics associated with program completion for participants in diversion programs (FDJJ, 2012). Chapter 5 consists of the Spearman correlations and the logistic regression model results. It also includes an interpretation of the findings, limitations of the current study, recommendations for future research, implications of this study, and a conclusion.

The findings of the current study were compared to the literature. For example, the current study found that youth factors/characteristics such as substance use and interpersonal stress and family factors such as undermined authority and relatedness and family discord predicted juvenile justice diversion program completion. Similar studies on diversion suggested that outcomes were impacted by youth and family factors. For example, a study conducted by Nowakowski and Mattern (2014) examined distinct profiles of youth who were violent against a family member and how such characteristics factored in the completion of a family violence diversion program. The study focused on the participants' sociodemographic and delinquency characteristics as predictors of program completion. The results revealed that two delinquency characteristics such as having a prior violent arrest and skipping school were factors affecting Family Violence Intervention Program completion (Nowakowski & Mattern, 2014). A study conducted by Loeb et al. (2015) examined how individual and familial variables predicted the completion of a diversion program. Loeb et al. stated that prior research studies reported

positive program outcomes, but only a few studies focused on the impact of participant variables as crucial in completing the program.

Interpretation of the Findings

Comparison of Results to Studies with Similar Results

The findings of the current study established which individual and familial characteristics affected program completion. Nowakowski and Mattern (2014) conducted a study on distinct profiles of youth who were violent against a family member and how such characteristics factored into the completion of a family violence diversion program. The study focused on the participants' sociodemographic and delinquency characteristics as predictors of program completion. The results revealed that two delinquency characteristics, having a prior violent arrest and skipping school, are factors affecting Family Violence Intervention Program completion (Nowakowski & Mattern, 2014).

A study with similar findings was conducted by Loeb et al. (2015), who examined how individual and familial variables predicted the completion of a diversion program. Loeb et al. stated that prior research studies reported positive program outcomes, but only a few studies focused on the impact of participant variables as crucial in completing the program. Also, according to Loeb et al., a thorough investigation of participant variables predictive of completing the program was needed and recommended for future research to explore different diversion program agencies to increase generalizability.

The findings of this study on youth factors/characteristics such as substance use and interpersonal stress as program completion predictors are related to a study conducted by Vander Kooi (2015), who examined a Michigan county's prosecutor's drug

and alcohol diversion program and its impact on recidivism rates. The study aimed to provide an alternative to the court's intervention, addressing the recidivism rates of at-risk youth who have been in the program. The variables that predict recidivism were studied, and the results indicated that those juveniles who were rearrested for drug offenses recidivated at a 30% rate and 15% rate for an alcohol offense (Vander, 2015). Interpersonal stress among youth includes behavioral history, school/social issues, and academic performance. These three areas of psychosocial functioning associated with interpersonal stress among youth are related to the sample questions about attitudes/behaviors, aggression, current school/social issues, and academic performance (Clarke, 2006).

Results of this study on family factors/characteristics such as undermined authority and relatedness and family discord as program completion predictors supported Lippold et al. (2018), who examined lability in parent's hostility and warmth toward their adolescent that were found to be associated with risky youth behavior. This longitudinal study investigated two types of change in parental warmth and hostility toward their children during early adolescence across Grades 6 to 8, developmental trends and lability and their linkages to substance use and delinquency in Grade 9 (Lippold et al., 2018). The study reported lability associated with youth with hostile parents, with moderate levels of lability associated with higher substance use, and high lability associated with relatively lower rates of substance use (Lippold et al., 2018). Overall, this study confirms similar results to other studies that family relationships and interaction patterns are likely to

change during early adolescence, which are factors in youths' changing development needs (Cox & Paley, 1997, as cited in Lippold et al., 2018).

The findings of this study regarding family factors as significant predictors of program completion are similar to those of Alarid et al. (2012), who examined family factors that influenced juvenile drug court program completion and the likelihood of rearrest using the family systems theory, finding family support to be a significant predictor of both program completion and postprogram reduced recidivism. The same study examined both client behavior and parental support, and the conclusions drawn from evidence and results suggested that family support was a significant predictor and crucial toward successful program completion (Alarid et al., 2012).

Family systems theory as an interconnected emotional unit and observed the patterns of family dysfunction through multifaceted interactions in the family was supported by this study (Berg-Cross & Worthy, 2013). The fact that family dynamics have the potential to influence family-related factors such as the level of family support, living arrangements, and family dysfunction such as conflicts among family members, abuse, and neglect seem to relate to individual and family factors that affect diversion program completion.

Comparison of Results to Studies with Different Results

A study conducted by Soloski and Berryhill (2016) examined gender differences- emotional distress as an indirect effect between family cohesion and adolescent alcohol use. This study explored the effect of family cohesion on the development of emotional distress and alcohol use using family systems theory. Results indicated no association

between emotional distress and adolescent alcohol use through family cohesion (Soloski et al., 2016). Results also indicated gender differences linked to family cohesion was related to female adolescents' reported emotional distress, while emotional distress was related to males' alcohol use problems (Soloski et al., 2016).

Limitations of the Study

Although the overall findings of the current study showed significant correlations between family and youth factors and diversion program completion, this study had five limitations. The first limitation was the possibility of the use of secondary data, in that the recorded data might have contained incomplete or missing information. The second limitation was the generalizability of the results, given that the FDJJ Research and Integrity department granted access for the specific fiscal year 2017-2018 due to the difficulty of retrieving or accessing those data.

The third limitation was the way in which the variables were defined at the time of initial data collection or measurements, which could have affected the validity of this study. The fourth limitation was the possibility that the stability of logistic regression models and coefficients using a single set of data without a validation with a second data set was not accurate to use for prediction (Loeb et al., 2015). And lastly, it was not clear if this study supported Bowen's family systems theory's claim that it is universal (Miller et al., 2004).

Recommendations for Future Research

Based on data from the present study, the strongest individual predictive factors were history of drug use and related problems, history of antisocial friends, current drug use, and related problems, and history of mental health, while the strongest family predictive factors were history of running away or getting kicked out of the home and problem history of parental authority and control. Given the many variables in diversion programming, the question remains who will complete or not complete such programs. Future research on diversion programming to examine the relationship between two or more variables should be in the context of different agencies and different juvenile justice-involved youth diversion programs in other states to assess the generalizability of the findings of this study (Loeb, et al., 2015).

The scope of the present study was for data specifics for diversion programs for youth during the fiscal year 2017-2018. The two instruments used then have been changed that might have affected some of the variables. Future research may also look at the possibility of conducting similar research to assess the current study findings.

Implications

Implications for Practice

This study contributes to some important implications for practice. The knowledge gained from this study can be used to provide vital information for psychologists who have worked with state juvenile justice agencies, practitioners, and mental health diversion agencies when assessing their clients' success or failure in the program. This research may assist educators in teaching psychology and other social

science students who work with diversion programming for juvenile justice-involved youth.

Implications for Policy

The findings of this study provide important policy implications. Crime and delinquency committed by youth who are under 18 are two of the tough challenges that policymakers face every day (FDJJ, 2012) Diversion programs are viable alternatives to the high cost of incarceration and residential facilities for first-time juvenile offenders. The variables predictive of program completion were based on data from the current study and each variable provided useful information for juvenile justice programs. The variable predictors can potentially be used to select, analyze, and predict juvenile offenders most likely to complete the program. This research may assist policymakers in identifying and designing a treatment or program for additional services or resources that match specific needs to aid non-compliant participants. This research may have the potential to contribute significantly to juvenile delinquency and juvenile programs.

Implications for Social Change

One important implication of this study is for social change. Diversion programs as viable alternatives to jails and residential facilities contribute to social change as they address some of the problems related to social, legal, and mental health (FDJJ, 2012). This study analyzed and assessed the evidence for individual and familial factors and found a significant relationship to program completion. The knowledge gained from this study contributes to diversion programming that allows social transformation for delinquent youth who committed a minor crime in the State of Florida to live in their

homes or transition back into the community instead of being incarcerated in overcrowded jails and residential facilities (FDJJ, 2012).

Conclusion

The discussion on the results of this study may assist which individual and family factors will likely determine program completion. Similar studies suggest that individual and familial variables reported positive program outcomes although the impact of participant variables as crucial in program completion tends to be overlooked. The family systems theory used for this study supports the idea on family dynamics can potentially influence family-related factors among family members and how they relate to individual and family factors that affect program completion. Although the results showed significant correlations between family and youth factors for program completion, this study had a few limitations that could have affected the validity of the results. Despite these limitations, the implications for policy, practice, and social change persist in this study. One important implication is for social change that may offer social transformation for most at-risk youth, which is the focus and heart of the juvenile justice programs.

Future research on diversion programming when examining the relationship of different variables that predict program completion should explore different juvenile justice agencies on youth diversion programs in other states. Or if it will necessitate, a follow-up study in the state of Florida that covers a wider scope to strengthen and increase the overall findings.

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