Investigating Time During Residential Program Until Transition for Adjudicated Youth: a Mixed Methods Study Using Event History Analysis with Follow-Up Interviews

Emily Carol Lott
Portland State University

Let us know how access to this document benefits you.

Follow this and additional works at: https://pdxscholar.library.pdx.edu/open_access_etds

Part of the Social Work Commons

Recommended Citation

10.15760/etd.6520

This Dissertation is brought to you for free and open access. It has been accepted for inclusion in Dissertations and Theses by an authorized administrator of PDXScholar. For more information, please contact pdxscholar@pdx.edu.
Investigating Time During Residential Program until Transition for Adjudicated Youth:
A Mixed Methods Study using Event History Analysis with Follow-Up Interviews

by

Emily Carol Lott

A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Social Work and Social Research

Dissertation Committee:
Junghee Lee, Chair
Tom Keller
Mark Leymon
Keva Miller

Portland State University
2018
Abstract

Residential placement is considered the most severe sanction for adjudicated youth, yet there is little consensus on best practices and interventions in residential settings. Demographic trends in the juvenile justice system further exacerbate challenges in studying residential placements. Disparities among minority youth, diverging state definitions of juvenile sex offenses, discrepancies in recidivism measures, and variations in local and state juvenile courts have contributed to a convoluted system that has struggled to identify the meaning of “success” in residential settings.

Building on theories of engagement in residential care and program theory of change, this mixed methods study explores how various components of a residential program for adjudicated young males contribute to time in the program leading up to transition out of the program. Event history analysis was used to examine administrative program data. Then, follow-up interviews were conducted with program employees to gather further insight to supplement quantitative findings.

Findings indicated that juvenile sex offenses and home visits played a significant role. Additionally, race, ethnicity, and duration and engagement in family, individual, and group sessions also played varying roles in youths’ transition out of the program. Findings from the employee interviews further supported that race, ethnicity, culture, and family are all critical parts of residential treatment. The interviews also discussed the role that Collaborative and Proactive Solutions, a behavioral modification approach used in this program, plays in youths’ overall engagement during their time in the program.
Acknowledgements

This dissertation study would not have been possible without the support of the residential program in this study. Thank you to the directors and staff for the opportunity to conduct this study and for me to serve as an embedded researcher with the agency. Thank you to my committee for their support, consultation, and education. I would also like to thank my parents, Dale and Carol, my sister, Amy, my partner, Giovanny, and my friends for their ongoing encouragement.
# Table of Contents

Abstract ......................................................................................................................... i  

Acknowledgements ..................................................................................................... ii  

List of Tables ............................................................................................................... vii  

List of Figures .............................................................................................................. viii  

Chapter One: Introduction ......................................................................................... 1  
  Statement of Problem ............................................................................................... 1  
  Development of the Study ....................................................................................... 4  
  Conceptual Framework ............................................................................................. 6  
  Research Questions and Hypotheses ....................................................................... 7  
  Overall Study Research Question: ......................................................................... 7  
  Quantitative Research Questions: .......................................................................... 7  
  Quantitative Research Hypotheses: ....................................................................... 8  
  Qualitative Research Questions: ............................................................................ 8  
  Purpose of the Study ............................................................................................... 9  
  Relevance to Social Work ....................................................................................... 9  

Chapter Two: Literature Review .............................................................................. 11  
  Juvenile Justice in the United States .................................................................... 11  
  Juvenile justice in Oregon ..................................................................................... 15
Residential Placements ........................................................................................................ 17

Juvenile sex offenders (JSOs) ............................................................................................... 21
Therapies .............................................................................................................................. 21
Groups .................................................................................................................................. 22
Milieu .................................................................................................................................... 23
Point and levels system ......................................................................................................... 24

Mixed Methods in Juvenile Justice Residential Settings ....................................................... 25

Chapter Three: Theory .......................................................................................................... 27

Engagement ........................................................................................................................... 27
Theory of Change (TOC) ........................................................................................................ 29
Study program’s TOC ........................................................................................................... 30

Chapter Four: Methods ......................................................................................................... 35

Study Setting ........................................................................................................................ 35
Study Design ........................................................................................................................ 35
Sample for Quantitative Core .............................................................................................. 36
Variables for Quantitative Core .......................................................................................... 38
Time ...................................................................................................................................... 38
Transition ............................................................................................................................. 38
Age ......................................................................................................................................... 39
Race/ethnicity ......................................................................................................................... 39
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>v</td>
<td>Status</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>JSO</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Individual sessions</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Individual engagement</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Group sessions</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Group engagement</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Family sessions</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Family engagement</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Analysis for Quantitative Core</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Method for Qualitative Supplement</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Sample for Qualitative Supplement</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Analysis for Qualitative Supplement</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Chapter Five: Results</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Preliminary Findings for Quantitative Core</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Cox Regression Findings for Quantitative Core</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Model 1</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Model 3</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Model 4</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Model 5</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Model 7</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Findings for Qualitative Supplement</td>
<td>63</td>
</tr>
</tbody>
</table>
Theme 1: Significance of Race/Ethnicity .......................................................... 66
Theme 2: Family and Culture ............................................................................. 67
Theme 3: Residential Care Structure ............................................................... 69
Theme 4: Agency and choice ............................................................................ 70
Theme 5: Internalization ..................................................................................... 72
Chapter Six: Discussion and Conclusion ........................................................ 74
  Discussion ........................................................................................................ 74
  Limitations ...................................................................................................... 83
  Implications for Social Work Practice and Future Research ......................... 86
  Conclusion ..................................................................................................... 87
References ......................................................................................................... 91
Appendix A. Recruitment Scripts ..................................................................... 107
Appendix B. Interview Guide ........................................................................... 109
Appendix C. Participant Questionnaire ............................................................ 112
Appendix D. Consent Form .............................................................................. 113
Appendix E. Grbich’s Five Stages of Analysis ................................................. 117
List of Tables

Table 5.1. Descriptives of Study Variables..................................................................................52
Table 5.2. Correlations among Study Variables........................................................................53
Table 5.3. Models 3 and 4. ........................................................................................................60
Table 5.4. Models 5, 6, and 7 ..................................................................................................65
List of Figures

Figure 3.1. Residential Program’s TOC.................................................................32
Figure 5.1. Survival Plot for Race/Ethnicity.........................................................54
Figure 5.2. Survival Plot for JSO........................................................................55
Chapter One: Introduction

Statement of Problem

Placement in a residential facility continues to be the most severe sanction for adjudicated youth (Office of Juvenile Justice and Delinquency Prevention, n.d.). In 2014, over 75,000 adjudicated youth were ordered to a residential placement nationwide (Office of Juvenile Justice and Delinquency Prevention, 2017c). Discrepancies and variations across settings in residential placements have challenged researchers and policymakers. The Office of Juvenile Justice and Delinquency Prevention (OJJDP) defines a residential placement as any type of facility where a youth is sanctioned by a judge to live, which can include corrections and detention facilities (Office of Juvenile Justice and Delinquency Prevention, n.d.). Based on this definition, a residential facility may not necessarily provide treatment services. However, in practice and in literature, residential care is often understood as having a variety of treatments offered, types of programs, populations served, lengths of stay, and kinds of environments (Lipsey, 2009; Roberts, Montgomery, Church, & Springer, 2014; Soverein, Van der Helm, & Stams, 2013). In 2014, only 63% of residential facilities provided on-site treatment services, such as mental health, substance abuse, or sex-offense treatment (Office of Juvenile Justice and Delinquency Prevention, 2016).

These conflicting interpretations present challenges for studying residential settings. There remains little to be understood on a broad spectrum about best practices in residential programs. Researchers have reached little consensus about best interventions and evidence-based practices in residential care (Ford & Blaustein, 2013; Greenwald et.
As such, the effectiveness of residential treatment has been debated in the literature (see De Swart et. al., 2012; Lispey, 2009). In fact, some authors have even referred to interventions in juvenile justice settings as a “…‘black box’ that has not been opened yet” (Van der Helm, Wissink, De Jongh, and Stams, 2012, p. 996).

Challenges in identifying best practices for residential placements are exacerbated by the complex demographic trends of youth involved in the juvenile justice system. Across the system, there are stark disparities among age, race and ethnicity, gender, and types of offenses. In 2016, over 850,000 juveniles under age 18 were arrested (Office of Juvenile Justice and Delinquency Prevention, 2017d). Of these arrests, only 28% were under age 15 (Office of Juvenile Justice and Delinquency Prevention, 2017d). In 2016, youth of color made up 38% of juvenile arrests and were arrested at nearly twice the rate of White youth (Office of Juvenile Justice and Delinquency Prevention, 2017d). Moreover, in 2016, Black youth were arrested at 2.6 times the rate of their White counterparts (Office of Juvenile Justice and Delinquency Prevention, 2017d). Male youth have historically comprised the majority of the juvenile justice population with 71% of arrests in 2016 being for males (Office of Juvenile Justice and Delinquency Prevention, 2017d). Types of offenses that youth are arrested for also vary demographically. In 2016, minority youth made up for over half of the arrests of murder, robbery, stolen property, prostitution, and gambling (Office of Juvenile Justice and Delinquency Prevention, 2017d). Youth under age 15 comprised 57% of arson arrests and nearly one-third of weapons and aggravated assault arrests (Office of Juvenile Justice and Delinquency Prevention, 2017d).
Prevention, 2017d). These differences in demographic trends complicate decisions in placements and service delivery for juvenile justice systems, especially residential settings.

Of particular regard is the lack of national estimates on juvenile sexual offenses (JSO), which the OJJDP no longer reports due to differences among law enforcement reporting practices (Office of Juvenile Justice and Delinquency Prevention, 2017d). Depending on the state or jurisdiction, sex offenses are defined differently and JSOs may sometimes be charged as either adults or juveniles (Schlegel, 2014). Hence, JSOs are difficult to pinpoint within the juvenile justice system (Schlegel, 2014). In residential care, JSO youth often are required to complete offense-specific treatment, which can further convolute best practices for residential settings when there are mixed populations of JSO and non-JSO youth. Even for offense-specific treatment, scholars have stated that there is no “one-size-fits-all” approach for working with JSO youth, and that many current treatment approaches for JSOs are based on theories of adult sex offending rather than juveniles (Dwyer & Letourneau, 2011).

Considering such discrepancies, it has been difficult for researchers to define metrics of “success” for residential care. In the field of juvenile justice, the most widely used metric of success is a reduction in recidivism, but the relevance of this has been debated in the literature. States differ in how recidivism is defined, such as the amount of time until next arrest or the type of offense that constitutes recidivating (Council of State Governments Justice Center, 2014; McMackin et al., 2004). Recidivism as a singular indicator of success lacks critical contextual information, including how it is measured or
why it occurred, and is not a sufficient indicator of the success or failure of a person, program, or intervention (Council of State Governments Justice Center, 2014). Policymakers have therefore recommended that programs examine metrics of success other than recidivism (Council of State Governments Justice Center, 2014). Scholars have suggested that researchers use indicators of success that are relevant to the residential facility’s treatment or program model (Huang, Duffee, Steinke, & Larkin, 2011; Whittaker, Overstreet, Grasso, Tripodi, & Boylan, 1988). While this limits findings to the context of the study setting (Soverein, Van der Helm, & Stams, 2013), it is a movement towards a necessary focal shift to redefine “success” in residential settings.

Development of the Study

This study takes place at a residential facility for males ages 13-18 in state custody in Oregon. The study was developed out of a three-year long partnership with the agency, where I served as an embedded researcher as part of a Graduate Assistantship during my doctoral program to assist the agency in establishing research and evaluation practices. The nature of this position has considerably informed the direction and development of this study. The embedded researcher position is reflective of literature on insider-outsider perspectives in research (see Edmonds-Cady, 2012; Humphrey, 2007; Naples, 1996). Insider-outsider perspectives involve having intersections of identities between the researcher and participant. Edmonds-Cady (2012) describes it as, “…shifting categories that are constructed in part through researcher/participant interactions” (p. 180). In this case, the general insider-outsider considerations of the embedded researcher
position would be the duality of the role of a doctoral student in a Graduate Assistantship while also being “embedded” in a community-based agency.

There are advantages and disadvantages to insider-outsider roles. The disadvantages include power differentials or conflicting statuses that can lead to challenges or discrepancies in the research process (Naples, 1996). As Corbin-Dwyer and Buckle (2009) point out, although the researcher may be a part of the culture, they may not fully understand the subcultures of the agency. For this study, the most advantageous aspect to the insider-outsider nature of the embedded researcher position has been developing close working relationships with staff, becoming familiar with the organizational culture and values, and coming to understand the procedures and practices of the programs. As other authors have indicated, these are critical aspects towards working with residential programs to identify theories of change as well as research goals and objectives (Huang, Duffee, Steinke, & Larkin, 2011).

As Naples (1996) indicates, the insider-outsider perspective can change and evolve based on context and environment. As is often the case in residential programs, there have been many internal and external factors that have presented both opportunities and challenges to the agency’s research and evaluation goals. The benefits of the insider-outsider role have afforded a unique opportunity to be creative in identifying goals and methods that are compatible with the needs of the agency. Through the insider-outsider nature of the embedded researcher position, this study has been able to identify useful, practical ways to answer research questions that are relevant to the residential program and to the broader field of juvenile justice research.
Conceptual Framework

This mixed methods study builds on theories of engagement and the program’s theory of change (TOC) to explore how youth transition from the program. In this program, a youth’s transition from the program is either “planned” or “unplanned.” A planned transition is ideal, as it involves a structured exit from the program, coordinated by program staff, the youth, the youth’s family, probation/parole officers, and/or other community partners. An unplanned transition involves an immediate removal from the program, typically due to a runaway, arrest, or imminent safety concerns (e.g. threat or actual harm to self or others).

Literature describes engagement as a construct including three main components: attitudinal, relational, and behavioral (Becker et al., 2014; Cunningham, Duffee, Huang, Steinke, & Naccarato, 2009; Huang et al., 2011; Raftery et al., 2010; Smith et al., 2008). Each of these components has theoretical underpinnings that inform engagement. The program in this study is a mandated setting, which further complicates how youth engage with the program. Engagement theory considers how these three components relate to a mandated setting. This study seeks to explore how engagement as a theoretical concept, works with the program’s TOC to support a planned transition from the program.

This program’s TOC was identified through the embedded researcher partnership with the agency. As Huang, Duffee, Steinke, & Larkin (2011) describe, the process of identifying the program’s TOC is complex as it involves connecting implicit values and expectations with explicit actions and daily practices. This residential program’s TOC involves a series of treatment components, such as therapies and groups that youth
participate in when they enter the program. The TOC posits that engagement in these components of treatment will ultimately serve a youth in having a planned transition from the program. This program also uses Collaborative and Proactive Solutions (CPS) as its primary behavioral modification modality for the entire program. The premise of CPS is that youth build skills through a structured conversational process, where youth and adults mutually acknowledge problems and work towards solutions together (Greene, 2014; Greene, 2016b; Greene & Ablon, 2006). In this program’s TOC, CPS is the overarching approach that informs engagement in all aspects of treatment and ultimately informs the ideal transition from the program.

**Research Questions and Hypotheses**

This study is an additional coverage mixed methods design (QUANT + qual), with the qualitative portion intended to provide supplemental information to the quantitative. Research questions are listed below.

**Overall Study Research Question:**

1. What contributes to whether a youth’s time during a residential program leads to an unplanned transition?

**Quantitative Research Questions:**

1. Are a youth’s age, race/ethnicity, probation or parole status, and sex offense status associated with an unplanned transition from the residential program?
2. Is the amount of time and engagement level in individual sessions, group sessions, and family sessions associated with an unplanned transition from the residential program?
3. Are more home visits associated with an unplanned transition from the residential program?

**Quantitative Research Hypotheses:**

1a. \( H_1 \): Older youth are more likely to have a planned transition from the program.

1b. \( H_2 \): Minority youth (reference group=White youth) are less likely to have a planned transition from the program.

1c. \( H_3 \): Youth on probation status or more likely to have a planned transition from the program.

1d. \( H_4 \): JSO youth (reference group=non JSO youth) are more likely to have a planned transition from the program.

2a. \( H_1 \): Youth with more time and higher engagement levels in individual sessions are more likely to have a planned transition from the program.

2b. \( H_2 \): Youth with more time and higher engagement levels in group sessions are more likely to have a planned transition from the program.

2c. \( H_3 \): Youth with more time and higher engagement in family sessions are more likely to have a planned transition from the program.

3a. \( H_4 \): Youth with more home visits are more likely to have a planned transition from the program.

**Qualitative Research Questions:**

1. Based on the quantitative findings, how do employees perceive what parts of the residential program influence a youth’s transition?
2. How does CPS influence a youth’s engagement and transition from the residential program?

**Purpose of the Study**

There is a need for examining juvenile justice residential programs in order to have a better understanding of contextual factors that lead to improved outcomes for juvenile justice-involved youth. The overall aim of this exploratory, mixed methods study is to explore contributing factors to youths’ transition from a juvenile justice residential program. In order to answer research questions, the study uses an additional coverage mixed methods design (QUANT + qual), with quantitative methods being the primary method and qualitative methods providing supplemental information (Morgan, 2014a). The findings of this study will be used to inform practice at this agency, along with contributing to literature and research on juvenile justice residential programs.

**Relevance to Social Work**

This study is relevant to social work on many levels, including the individual youth level, a practitioner level, an administrative and organizational level, and a policy level. At the individual youth level, the field of social work can benefit from gaining insight into how program-specific factors impact different youth. There has been scarce literature on whether youths’ engagement in certain parts of a residential program ultimately impacts the type of exit from a program. The findings of this study seek to inform social workers in residential settings to better understand how aspects of a program may serve youth differently. Since adjudicated youth can experience multiple residential placements (see Office of Juvenile Justice and Delinquency Prevention,
2017d), the findings of this study will potentially contribute to understanding what parts of a program best supported youth, in an effort to avoid placement instability for adjudicated youth.

Literature indicates that there is little consensus around interventions and evidence-based practices for working with youth in juvenile justice residential settings (Ford & Blaustein, 2013; Greenwald et. al, 2012; Souverein, Van der Helm, & Stams, 2013). The findings of this study may potentially be useful for social work practitioners working with various demographics and offenses of adjudicated youth, to provide more insight into the implications of interventions in a residential setting. At an administrative and organizational level, this study may offer critical information about youths’ experience during a residential program. This can inform program and organizational development, where leaders of agencies can use the findings of this study to make informed programming decisions.

Lastly, this study seeks to contribute to social work policy. As some policymakers have indicated, it is time to shift the focus toward contextual factors for adjudicated youth in order to understand more about what contributes to desired long-term outcomes such as reduced recidivism (Council of State Governments Justice Center, 2014). The findings of this study can provide useful information about time during a residential program so that policymakers can advocate for effective programs and placement for adjudicated youth.
Chapter Two: Literature Review

Juvenile Justice in the United States

Historically, the juvenile justice system was developed on the premise of rehabilitation for children and separation from adults. Beginning in the mid-nineteenth century, society began to recognize adolescence as a distinct developmental stage from adulthood (Miller, Anderson-Nathe, & Meinhold, 2014; Mooradian, 2003). Early proponents of juvenile justice reform believed that juvenile delinquency, at the time primarily focused on male behavior, was due to poor morals, education, and standards of behavior (Eith, 2008). In 1899, the first juvenile court was established in Cook County, Illinois and marked a new system to differentiate the processing of juveniles from adults (Eith, 2008; Mooradian, 2003). This new system was specifically aimed at rehabilitation rather than punishment and allowed the courts to use discretion and individual, contextualized decision-making for juveniles (Miller, Anderson-Nathe, & Meinhold, 2014). Despite its specific focus on rehabilitation, critics remained concerned that it had been modeled after the adult system and therefore did not give proper due process to juveniles (Eith, 2008).

The enactment of the Juvenile Justice Delinquency and Prevention Act (JJDPA) in 1974 marked a historical turning point for juvenile justice (Eith, 2008; Hughes, 2011; Office of Juvenile Justice and Delinquency Prevention, n.d.). For the first time, states could receive federal funds for programs intended to rehabilitate behavior and divert youth from formal criminal justice involvement (Eith, 2008; Hughes, 2011). Such programs have included juvenile drug courts, youth courts, substance abuse programs,
boot camps, gang prevention programs, and residential programs (McNeese & Ryan, 2014; see Cole & Heilig, 2011; Godwin, 2000).

Since its original enactment, the JJDPA has been amended several times, most recently in 2002, each time adding more rehabilitative programs (Hughes, 2011; McNeese & Ryan, 2014). Despite best efforts, there are many systemic factors that have made the intent of rehabilitation in juvenile justice yet to be fully realized. As Miller, Anderson-Nathe, & Meinhold (2014) have indicated, policy reforms have continually fallen short, as most interventions are still modeled after adult correction systems. States, including Oregon, have increasingly made it easier for juveniles to be charged in adult courts with policies that allow for younger ages to be charged as adults or establish minimum sentences for juveniles (McNeese & Ryan, 2014). Furthermore, stark disparities in demographic trends across the system have provoked debate on how well the system has balanced the issue of law enforcement and due process with rehabilitation (McNeese & Ryan, 2014; Miller, Anderson-Nathe, & Meinhold, 2014). Particularly, the disparate rate at which youth of color have contact with the system and the role that gender has played in defining criminal behavior has complicated the role of rehabilitative programming and interventions (Miller, Anderson-Nathe, & Meinhold, 2014).

Youth of color are overrepresented throughout the juvenile justice system (Curry-Stevens & Nissen, 2011; Kempf-Leonard, 2007; McCarter, 2014). As mentioned previously, in 2016, minority youth were arrested at nearly twice the rate of White youth, and Black youth were arrested at almost three times the rate of White youth (Office of Juvenile Justice and Delinquency Prevention, 2017d). Not only do youth of color have
disproportionate contact in arrest rates, but also at every other decision point in the system as well (McCarter, 2014). In 2014, minority youth accounted for over half of delinquency cases processed in juvenile court (Office of Juvenile Justice and Delinquency Prevention, 2017a). In the same year, minority youth were detained at nearly twice the rate of White youth, with Black youth accounting for 42% of all detained youth (Office of Juvenile Justice and Delinquency Prevention, 2017a).

Historically, there has been attempts to address racial inequities through policy change. In 1988, the JJDPA was amended to include a requirement that states assess for racial disproportionality and implement strategies to address it, what is referred to as Disproportionate Minority Contact (McCarter, 2014; Miller, Anderson-Nathe, & Meinhold, 2014). However, authors have pointed out that racial disparities are multifaceted and cannot be easily dismantled through a single policy fix (Miller, Anderson-Nathe, & Meinhold, 2014). Scholars have presented some theoretical reasons for this, including selection bias in decision-making due to racial/ethnic stereotyping and differences among social and environmental context for minority youth, such as increased racial and community risks, concentrated poverty, racial segregation, and deindustrialization (Miller, Anderson-Nathe, & Meinhold, 2014).

Gender has also played a critical role in the evolution of juvenile justice in the U.S. Historically, the juvenile justice system has been dominated by male offending and hegemonic masculine ideologies (Miller, Anderson-Nathe, & Meinhold, 2014). In the early development of the juvenile system, delinquency was almost solely directed towards males, with female offenses primarily consisting of perceived immoral behavior,
such as running away or promiscuity (Miller, Anderson-Nathe, & Meinhold, 2014). However, since the 1990s, the number of female arrests has slowly increased, with over one-fourth of arrests in 2016 consisting of female youth and many of these arrests being for what would traditionally have been male offenses (i.e. violent crime or assault) (Miller, Anderson-Nathe, & Meinhold, 2014; Puzzanchera, & Ehrmann, 2018). In 1992, the JJDPA was amended again to require that states to assess for gender disparities and also provided federal funding to redefine programs traditionally for males as female programs (Kempf-Leonard & Sample, 2000).

The growing rate of female involvement has presented challenges in decision-making across the system (Miller, Anderson-Nathe, & Meinhold, 2014). Researchers have found that there are differences in the etiology of female crime, but hegemonic masculinity continues to dominate male delinquency and juvenile justice programming (Abrams, Anderson-Nathe, Aguilar, 2008; Kempf-Leonard & Sample, 2000; Miller, Anderson-Nathe, & Meinhold, 2014). Male identity development and subsequent juvenile justice involvement are associated with gender socialization and expectations of hegemonic masculinity such as competition, demonstrations of power and ownership, and aggression (Abrams, Anderson-Nathe, Aguilar, 2008; Miller, Anderson-Nathe, & Meinhold, 2014). In a study of gender-specific juvenile justice settings (i.e. separate treatment of males and females), Kempf-Leonard & Sample (2000) describe virtually no benefit to gender-separated treatment, as it only reinforces traditional masculine gender roles and behaviors.
**Juvenile justice in Oregon.** The Oregon juvenile justice system has critical historical implications, the effects of which remain prominent today. In the late 1800s, the Oregon legislature established the State Reform School (what is now called MacLaren Youth Correctional Facility) to fix boys’ delinquency through a farm-based living environment and vocation (Oregon Youth Authority, 2016). In 1907, Oregon established its first juvenile court with an emphasis on rehabilitation that mostly centered on work-study programs for boys (Oregon Youth Authority, 2016).

In the 1980s, Oregon began developing offense-specific treatment for sex offenses, substance abuse, violent crime, and minority youth. Around this same time period, there was a national spotlight on youth gang activity, and the Oregon state legislature appropriated over 2 million dollars to this issue (Oregon Youth Authority, 2016). As a result of the national and statewide “tough on crime” policies during that time period, in 1994, Oregon voters approved Measure 11 (Oregon Council on Civil Rights, 2018). Measure 11 mandates that youth ages 15 years and older be charged as adults for certain felony offenses, including robbery, sexual abuse, and murder (Oregon Council on Civil Rights, 2018: Oregon Youth Authority, 2016). Measure 11 still remains in effect in Oregon, emphasizing a punitive approach rather than original goal of rehabilitation for juveniles. Measure 11 has been highly criticized, as it disproportionately affects youth of color and does not account for developmental considerations of children (Oregon Council on Civil Rights, 2018).

Oregon has one of the highest juvenile incarceration rates in the U.S. (Oregon Council on Civil Rights, 2018). Just as in national rates, minority and Black youth in
Oregon are incarcerated at much higher rates than White youth. In 2012, Black youth were convicted of Measure 11 offenses at 17 times the rate of their White counterparts (Oregon Council on Civil Rights, 2018). In 2015 in Multnomah County, Oregon’s most populated county, youth of color were referred to juvenile courts at 1.7 times the rate of White youth and Black youth were referred at 4.7 times the rate of White youth (Multnomah County, 2018). The current study setting is located in Clackamas County, Oregon, although youth are referred from anywhere across the state. In 2016 in Clackamas County, Black youth were referred to juvenile courts at 2.6 times the rate of White youth, despite only making up 2% of the total juvenile population in that county (Oregon Youth Authority, JJIS Steering Committee, 2016).

Today in Oregon, there are 5 youth correctional facilities, 4 work-study/transitional facilities, and 40 community-based residential facilities that are contracted by the OYA (Oregon Youth Authority, n.d.). Often, youth are processed in local courts prior to contact with the OYA, each of which has its own juvenile court system and structure. Due to this, the OYA serves youth ages 12-24 that are considered “most delinquent”—approximately 1,400 youth throughout the state (Oregon Youth Authority, 2017).

Youth that are placed in OYA custody may be sanctioned to a residential placement like the one in this study. There are many contextual considerations that impact a youth’s placement to a given facility. Under Measure 11, youth with certain offenses are mandated to be charged as adults and serve a minimum sentence in a correctional facility (Oregon Council on Civil Rights, 2018). These youth would not
initially be sanctioned to a residential program such as the one in this study, and in some cases, youth may never be considered for a setting other than corrections. However, there are some youth that may be paroled from a correctional facility to a residential program like the one in this study.

**Residential Placements**

When a youth becomes involved in the juvenile justice system, a judge may sanction them to a residential facility (Roberts, Montgomery, Church, & Springer, 2014). Many terms are used interchangeably throughout the literature to refer to residential care, such as “residential placement,” “residential treatment,” or “residential program.” This presents challenges with understanding the scope of residential care. Many residential care facilities can include multiple types of programs, or a residential facility serves as a singular type of program itself. Because there can be so much variation in residential care, scholars have suggested that outcomes of studies on residential care should only be considered within the context of the residential setting (Soverein, Van der Helm, & Stams, 2013).

The OJJDP has stated that length of stay is key in understanding how youth are processed in the system, but this is challenging information to gather because of the variation in juvenile court processing (Office of Juvenile Justice and Delinquency Prevention, 2017e). Literature has been ambiguous on the relevance of length of stay to outcomes in residential settings. Several studies have examined length of stay, but have ultimately shown no relationship between length of stay and respective outcomes (Calley, 2012; Jones et. al., 2010; Ryan & Yang, 2005). In a study of length of stay and
recidivism, Winokur, Smith, Bontrager, and Blankenship (2008) found no significant relationship between length of stay and recidivism rates. However, a longitudinal study exploring length of stay on educational outcomes found that at five and sixteen year follow-up periods, a longer length of stay in residential care was associated with higher rates of high school completion (Ringle, Ingram, & Thompson, 2010). Other authors have examined factors that contribute the length of stay in residential treatment as a way to inform practice. Hussey and Guo (2005) found that youth who were younger in age and presented with higher levels of psychiatric and behavioral impairment had longer lengths of stay in residential treatment, suggesting implications for approaches in treatment.

Just as in the juvenile justice system as a whole, minority youth are also overrepresented within residential placements. In 2015, minority youth were sanctioned to residential placements at 2.7 times the rate of White youth (Office of Juvenile Justice and Delinquency Prevention, 2017b). This is concerning, but even more so when considering studies that have found that service utilization for minority youth does not happen until residential placement. Rawal, Romansky, Jenuwine, and Lyons (2004) investigated mental health needs and prior service utilization among youth in a residential placement, and found that African-American youth displayed the highest level of need with the lowest prior service utilization before entering the juvenile justice system. In another study, Kates, Gerber, and Casey (2012) also found differences in prior service utilization. African-American youth were more likely to have prior mental health service utilization, but Asian youth were significantly less likely to have prior service utilization.
The inconsistencies in these findings suggest the need further investigate how minority youth fare in residential programs.

Given the disparity in populations and discrepancies around interventions in residential settings, it has been difficult for researchers to define a metrics for “success.” In the field of juvenile justice, the most widely used metric of success is a reduction in recidivism rates, but the significance of this has been debated in the literature. Studies have offered mixed results about the effects of residential care on recidivism. A meta-analysis of interventions used in juvenile justice settings found little effect on recidivism (Lipsey, 2009), and several other studies have found no significant relationship between the residential care program and recidivism rates (Calley, 2012; McMackin et al., 2004; Ryan & Yang, 2005). However, some studies have found that specific aspects of a residential program were associated with lower recidivism. For example, one study found that those who spent a longer time in treatment, had graduated the program, had sexual offenses, and were not chronic offenders had lower rates of recidivism (McMackin et al., 2004). A different study found that African-American youth were at greater risk of recidivating and that family contact during treatment was associated with a reduced risk of recidivism (Ryan & Yang, 2005). The findings of these studies lend to the fact that more information is needed about what components of residential care are contributing to ideal outcomes.

There are many interventions used in residential programs, but little consensus about what these interventions are, how they are applied, or their effectiveness (Ford & Blaustein, 2013; Greenwald et. al, 2012; Lott, 2018; Souverein, Van der Helm, & Stams,
In a meta-analysis of evidence-based treatments in institutional youth care, De Swart and colleagues (2012) found that studies with evidence-based treatments in institutional settings had a larger effect size than studies with care-as-usual in institutional settings. However, there were not major differences in effect sizes between studies with evidence-based treatments or non-evidence based treatments in institutional youth care (De Swart et al., 2012). Weaver, Byrnes, and Church (2014) identify some commonly used evidence-based practices seen in residential treatment, such as Dialectical Behavioral Therapy (DBT), Motivational Enhancement Therapy, and Multidimensional Treatment Foster Care. However, these evidence-based practices are limited to particular subpopulations or are intended for youth displaying specific symptomology (Weaver, Byrnes, & Church, 2014). At least one of these, DBT, is used in a modified format in the residential program in the current study.

There are some notions about why interventions are challenging within residential settings. Some authors have suggested that residential settings have inherent power differentials and coercion that make interventions ineffective and actually can contribute toward anti-social behavior (Souverein et al., 2013). Another suggested notion is “deviancy training,” where youth are exposed to negative behaviors of other youth and then model such behaviors (McMackin, Tansi, & Lafratta, 2004; Souverein et al., 2013). Some authors have stated that residential settings are repressive environments due to power structures intended to provide boundaries for workers but in turn do not give youth room to thrive (Souverein et al., 2013; Van der Helm et al., 2012). In any case, there continues to be discord around interventions particular to juvenile justice residential
settings. The following subsections include a review of interventions that are used by the residential program in this study.

**Juvenile sex offenders (JSOs).** JSOs are a subpopulation of adjudicated youth that are commonly required to complete offense-specific treatment. In the literature, most studies of JSOs are in settings that only offer sex offense-specific treatment. The program in this study is not exclusive to JSOs, but does offer offense-specific treatment to JSO youth. Jones, Chancey, Lowe, and Risler (2010) found a significant reduction of sexual interests in JSOs during residential treatment across all demographics, but found no significant relationship with the length of stay on the outcomes. Another study of youth in a sex offense-specific program found that higher age and higher impulsivity significantly predicted the likelihood to not complete treatment (Kraemer, Salisbury, & Spielman, 1998). JSOs are often victims themselves of sexual abuse and experience Post-Traumatic Stress Disorder (PTSD) and related symptoms (Hunter, 2010; Jones, Chancey, Lowe, & Risler, 2010). In a case study of two JSOs in a sex offense-specific residential program, Hunter (2010) found a reduction in PTSD symptoms and enhanced treatment engagement from prolonged exposure therapy.

**Therapies.** Therapy is typically a central component of residential programs. Youth in the juvenile justice system overall have PTSD at higher rates than those in the community and are at risk of having unaddressed mental health needs (Cohen et. al., 2016; Lee, Walker, & Bishop, 2014). Researchers have pointed out that the prevalence of psychological trauma in juvenile justice populations combined with the demanding nature of juvenile justice facilities has created a need for systemic, trauma-informed care (Ford
& Blaustein, 2013). One study found that using trauma-informed treatment in a residential facility significantly reduced presenting problems, time in treatment, and increased positive discharges (Greenwald et. al., 2012).

Family therapy and family involvement in residential treatment has also been found to predict successful discharges back to a home-based setting (Robst, Rohrer, Dollard, & Armstrong, 2014). Family involvement has been recognized as a critical element in treatment, and is especially needed for juvenile justice youth as legal barriers often prevent family involvement (Walker, Bishop, Pullman, & Bauer, 2015). The program in this study requires all youth to participate in individual therapy. Family therapy is not required but is encouraged.

**Groups.** Group work is also a typical component of residential programs. Group work has long been acknowledged as a prominent aspect of residential treatment (Bastiaanseen et. al., 2014). Group work can include therapy, skills training, or educational training to name a few (Richardson Surmitis, & Hyldahl, 2012). Groups are often a preferential form of treatment in residential settings because it is an efficient and cost-effective way for therapists or staff to work with multiple youth (Richardson Surmitis, & Hyldahl, 2012). As Richardson, Surmitis, & Hyldahl (2012) indicate, the peer interaction in groups creates a social learning aspect where youth can learn, develop support, and have a sense of universality with others.

The residential program in this study uses many educational and therapeutic curriculums and activities for group work, with the predominant one being a modified version of Dialectical Behavioral Therapy (DBT). DBT has been studied extensively and
is one of the few evidence-based treatments mentioned across the literature for residential settings (McCann, Ivanoff, Schmidt, & Beach, 2007; Montgomery, Kim, Springer, & Learman, 2013; Weaver, Byrnes, & Church, 2014). DBT was originally developed for adult women with borderline personality disorder, but has since expanded to many other populations, including adolescents (Montgomery, et. al., 2013). In juvenile justice settings, DBT has been shown to reduce symptoms of suicidal and assault behaviors (McCann et. al., 2007). The program in this study has modified its use of DBT to primarily include skills training around emotional regulation, distress tolerance, and mindfulness (Montgomery, et. al., 2013).

**Milieu.** The milieu is a concept unique to residential settings. Stemming from psychiatry, it is the notion of a therapeutic social environment (Mahoney et. al. 2009). Redl (1959) defines the milieu as a social structure that encompasses its own values system, a set of routines and behaviors, an impact of group processes, structural environment, staff attitudes and feelings, and activities. Literature on milieu therapy has mostly appeared in nursing, with scarce literature that focuses on non-psychiatric residential settings. Taxman and Ainsworth (2009) discuss a therapeutic milieu in correctional settings, advocating for a working alliance among all parties involved in correctional settings (e.g. judges, probation officers, correctional officers, counselors) in order to drive behavioral change. In this way, all parties play active roles in the therapeutic process rather than act as individual enforcers of punishment (Taxman & Ainsworth, 2009).
In an inpatient psychiatric unit for children and adolescents, DeSocio, Bowllan, and Staschak (1997) also highlight the importance of the therapeutic alliance between staff and youth, and also staff with youths’ families. DeSocio et. al. (1997) incorporate the idea of utilizing the space and environment to enhance the milieu, stating this should be mindful of not only the youths’ developmental stages but also the developmental abilities of the staff. DeSocio et. al. (1997) state that a productive milieu should emphasize daily collaboration and group problem-solving by having daily meetings with milieu staff to share shift reports and reestablish the responsiveness of the program and developmental themes within the patient group. This is reflective of the program in this study’s use of CPS, which also shares an emphasis on collaboration and problem-solving between staff and youth. Additionally, the program in this study also holds daily meetings between shifts to review updates related to the milieu.

**Point and levels system.** Point and levels systems are a common behavioral modification approach seen in residential programs. The agency in this study has long desired to move away from a point and levels system, but continues to use a modified version due to requirements from funding sources. As such, the levels system in this setting is informally monitored. Point and levels systems are based upon operant conditioning principles, where youth are rewarded for desired behaviors and punished for undesired behaviors through the absence or removal of points (Mohr, Martin, Olson, & Pumariage, 2009). As youth advance levels, this signifies more privileges and progress through a program (Mohr et. al., 2009). Point and level systems have been highly criticized in the literature as there is little to no evidence that supports their effectiveness
or long-term success (Mohr et. al., 2009; Mohr & Pumariega, 2004). Authors have indicated that point and level systems do not promote development of youth, rather just teach youth to adhere to rules in a particular environment (Tompkins-Rosenblatt & VanderVen, 2005). Point and levels systems have also been criticized for their lack of cross-cultural applications due to the subjectivity in identifying desired and undesired behaviors (Mohr et. al., 2009; Tompkins-Rosenblatt & VanderVen, 2005).

**Mixed Methods in Juvenile Justice Residential Settings**

Mixed methods approaches have been recognized for their practicality in social research (see Morgan, 2014a, 2014b; Merritt, 2016), yet among literature on juvenile justice residential settings there is little mention of mixed methods approaches. Simons and colleagues (2016) acknowledge the practical use of a mixed methods design in a juvenile justice setting, specifically around logistical concerns when conducting research with adjudicated juvenile populations. For example, they point out that with experimental designs, it is unlikely that a judge would agree with randomizing or assigning adjudicated youth to different conditions for the sake of comparison (Simons et. al., 2016). The authors also state that even if comparison to another residential setting is feasible, often the variation among residential settings becomes too convoluted and therefore presents too many threats to validity (Simons et. al., 2016). Additionally, Simons et. al. (2016) advocate for the use of a mixed methods design because certain mechanisms of a program can be captured with quantitative data and then further interpreted with qualitative data.
There have been a few other studies in juvenile justice research using mixed methods designs and even fewer that are specific to residential care. In one study, Onwuegbuzie, Daley, and Waytowich (2008) used a mixed methods design to analyze themes from qualitative data and then exploratory factor analysis to explore attributions of violent behavior in male juvenile justice youth. Another previous study conducted by Daley and Onwuegbuzie (2004) used a mixed methods design to explore male juvenile justice youth attributions toward violent behavior, where the authors used factor analysis and thematic analysis to explain different aspects of the phenomenon. In a different study, Abrams, Shannon, and Sangalang (2008), used a mixed methods design to explore youth transitioning out of incarceration. The authors employed a series of quantitative analyses to investigate a transitional living program and recidivism rates, supplemented by qualitative interviews. The quantitative findings of this study indicated that the transitional living program was a predictor of higher recidivism rates and the qualitative findings indicated that while the youth found many benefits to the program, there were challenges in re-entering their communities (Abrams, Shannon, & Sangalang, 2008).
Chapter Three: Theory

Engagement

A foundational aspect of residential care is engagement with the program. In residential settings, studies have found significant relationships between engagement and treatment outcomes (Becker et. al., 2014; Huang et. al., 2011; Smith, Duffee, Steinke, Huang, & Larkin, 2008). Some studies have shown that engagement tends to increase over time, and that youth with the lowest levels of engagement at the start of a residential program eventually showed the most improved outcomes by the end of the program (Becker et. al., 2014; Smith et. al., 2008).

Engagement in a residential setting can take on many forms. In mandated settings, like the one in this study, engagement becomes particularly complex to identify (Raftery et. al., 2010; Smith et. al., 2008). Literature has conceptualized engagement in residential settings as a multidimensional construct, consisting of at least three major components: 1) Attitudinal: A youth’s “readiness to change”; 2) Relational: Creating a bond, relationship, or therapeutic alliance with program staff, and; 3) Behavioral: Youth participating in the treatment services (Becker et. al., 2014; Cunningham, Duffee, Huang, Steinke, & Naccarato, 2009; Huang et. al., 2011; Raftery et. al., 2010; Smith et. al., 2008).

Smith, Duffee, Steinke, Huang, and Larkin (2008) describe the attitudinal component of engagement as youths’ “recognition of problems and motivation to address them” (p. 1426). The attitudinal component stems from Prochaska and DiClemente’s (1992) transtheoretical stages of change model. These stages include pre-contemplation, contemplation, preparation, action, and maintenance (Prochaska & DiClemente, 1992).
Huang, Duffee, Steinke, and Larkin (2011) describe in their study how the stages of change played out in the milieu of a residential program. The pre-contemplation, contemplation, and preparation stages were carried out in the milieu, where problems were recognized in a collective context (Huang et. al., 2011). Then, various clinical interventions were offered to support the action and maintenance stage in order to address the problems (Huang et. al., 2011). In this context, the authors found that engagement informed more service delivery, but did not find any significant connection between individual youth characteristics and engagement (Huang et. al., 2011).

The relational component is based on therapeutic alliance. Therapeutic alliance is broadly understood as the “affective relationship between the client and therapist as well as the client’s collaboration with therapy activities” (Becker et. al., 2014, p. 277). Therapeutic alliance is described across social sciences literature as an influential part of treatment (Becker et. al., 2014; Elvins & Green, 2008; Hurley, Lambert, Van Ryzin, Sullivan, & Stevens, 2013). For youth, therapeutic alliance is especially delicate as youth are often not self-referred to treatment and not always aware of problems upon entering a program (Elvins & Green, 2008). Elvins and Green (2008) point out that for youth, the therapeutic alliance can be a one-dimensional experience. Developmentally, youth may not be able to fully recognize all aspects of the therapeutic relationship and are therefore more apt to reject it entirely (Elvins & Green, 2008). Additionally, youth may have different perspective on the quality of the alliance than that of the adult caregiver (Becker et. al., 2014). Studies have presented ways to measure the therapeutic alliance (see Hurley et. al., 2013), but overall there is consensus that a therapeutic alliance is
dependent among context, progress, and time in a treatment setting (Becker et. al., 2014; Elvins & Green, 2008).

The behavioral component of engagement regards youths’ participation or compliance in treatment components such as service usage, dosage, or frequency of sessions (Cunningham et. al., 2009). In mandated settings, authors have argued that examining behavior through these mechanisms is less appropriate because participation does not always equate to a positive treatment experience (Cunningham et. al., 2009). Some authors have instead suggested focusing on agreement and cooperation with treatment goals (Cunningham et. al., 2009; Smith et. al., 2008). Raftery, Steinke, & Nickerson (2010) studied the behavioral component of engagement by investigating the relationship between engagement, cognitive-behavioral interventions, and problem-solving skills among youth in residential treatment. The study did not find any significant relationship between cognitive-behavioral interventions and problem-solving skills (Raftery et. al., 2010). However, the study did find a relationship between self-reported measures of early engagement and problem-solving skills (Raftery et. al., 2010).

Theory of Change (TOC)

In studies examining residential settings, authors have recommended using the program’s TOC as an orientation to the study setting and rationale for the research question (Huang et. al., 2011; Raftery, Steinke, & Nickerson, 2010). A TOC is “a series of hypotheses about the causal connections between the program’s activities, intermediate outcomes and its ultimate goals” (Walker & Matrese, 2011, p. 793). The TOC links activities to desired outcomes of the program, outlining daily processes with
short-term outcomes and long-term outcomes (Walker & Matrese, 2011). The implicit hypothesis behind a TOC is that delivering the right activities to the right people will lead to results the program wants to achieve (McLaughlin & Jordan, 2015). Identifying a program’s TOC is a challenging process that requires persistent dialogue between the researcher and program staff, so that comprehensive perspectives can adequately identify the implicit hypothesis (Huang, et. al., 2011; McLaughlin & Jordan, 2015). Hence, the TOC presented in this study was developed out of a three-year long partnership with the agency.

Hunger (2006) outlines four criteria for quality TOC. First, the TOC must be meaningful to the agency, to internal and external partners, and accomplishes something of value to them (Hunger, 2006). Second, the TOC must be plausible, meaning that if it is followed accordingly then the actions will lead to desired outcome (Hunger, 2006). Third, the TOC must be doable and realistic in regard to organizational capacity and resources (Hunger, 2006). And fourth, the TOC should be testable, including hypotheses that are testable in some way (Hunger, 2006). There are often many TOC’s found within a single program, but the purpose of any one TOC is that it is useful and adheres to a clear, primary focus (Hunger, 2006).

**Study program’s TOC.** The residential program’s TOC in this study combines elements of the engagement literature with specific treatment components. In this program, the belief is that through engagement and participation in the residential program, youth build skills that will help them to safely return to their communities and avoid future juvenile justice involvement. This is achieved through participation in a
series of therapeutic services and engagement with the milieu. In this program, the indicator for a youth’s readiness to exit the program is a planned transition. There is no specific length of stay in this program, but typically JSO youth have longer lengths of stay due to offense-specific requirements for treatment.

A “planned transition” means that a youth had an intentional, structured exit from the program that was planned by his therapist in collaboration with others (probation/parole officers, family, other community partners), whether it was back to his community or another setting. Because this program is a mandated setting, it is often the case that youth do not fully meet their treatment goals before needing to transition out of the program. However, even in this instance it is considered more successful than an unplanned transition. An “unplanned transition” is when a youth is discharged from the program immediately, usually because of a runaway, arrest, threat or actual harm to self or others, or a serious probation/parole violation.

The residential program in this study uses Collaborative and Proactive Solutions (CPS) as its primary treatment modality. CPS guides how staff and youth interact in the program and presumably informs engagement in therapeutic activities and the milieu. The therapeutic activities include individual, group, and family therapies and skill-building activities. The milieu is broadly defined as the social and structural environment of the program (Mahoney, Palyo, Napier, Giordano, 2009; Redl, 1959). As demonstrated in Figure 3.1, this program’s TOC contains several factors. Embedded within and across each one of these components are tenets of the engagement literature, suggesting that there are attitudinal, relational, and behavioral facets to each part of this program.
**Collaborative and Proactive Solutions (CPS).** CPS is a cognitive, skills-based model for working with children and youth that have extreme, challenging, or “explosive” behaviors (Greene, 1998; Greene & Ablon, 2006). The premise of CPS is that “kids do well if they can,” meaning that youth will exhibit positive behaviors when they have the skills to do so (Greene, 2014; Greene, 2016b). Challenging behaviors arise when youth are attempting to get needs met, but have “lagging skills” (Greene & Ablon, 2006). Lagging skills are not considered deficits, rather, it is the result of a cognitive functioning skill that was never learned, taught, or developed (Greene & Ablon, 2006). CPS suggests that youth can learn and build these skills through collaborative, structured interactions where adults identify the underlying need or lagging skill of the challenging behavior, and work with the youth collaboratively to solve the problem (Greene, 2014; Greene, 2016b; Greene & Ablon, 2006).

**Figure 3.1. Residential program’s TOC.**
The theoretical underpinnings of CPS are developmental psychology and social learning theory. In CPS, Greene & Ablon (2006) have integrated the developmental focus through identifying cognitive abilities in five major categories: executive skills, language-processing skills, emotion-regulation skills, cognitive flexibility skills, and social skills (Greene & Ablon, 2006). Social learning theory posits that a youth’s behavior is influenced by their social experiences and then carried across settings (O’Connor, Matias, Futh, Tantam & Scott, 2013). In other words, behaviors are modeled and internally processed (Grusec, 1992). In CPS, adults model empathy and listening skills through a proactive, structured, conversational problem-solving process (Lott, 2018). As a result, youth process new cognitive skill development and identify new prosocial ways to get needs met.

Studies of CPS have mostly been in clinical and educational settings, with very few studies in juvenile justice settings. In clinical settings, CPS has been shown to reduce symptoms of Oppositional Defiant Disorder and Attention-Deficit Hyperactivity Disorder, parenting stress, and improve parent-child relations (Greene et. al., 2004; Johnson et. al., 2012). In educational settings, CPS has been shown to reduce behavioral referrals, reduce teacher stress, and improve communication between teachers and students (Gruntman, 2014; Shaubman, Stetson, & Plog, 2011; Stetson & Plog, 2016). There has been one study of outcomes in a juvenile detention center, where CPS was associated with a reduction of injuries and recidivism (Greene, 2016a). A qualitative study in the same residential program in this study focused on employee experiences of implementing CPS, where employees discussed the philosophical tensions between the
CPS model and the juvenile justice system while also suggesting that the CPS model was an improvement from the traditional reward-and-punishment behavioral modification system (Lott, 2018).

At least two studies have suggested that there are times when CPS falls short as a standalone behavioral modification strategy. Gruntman (2014) found that while teachers indicated improved outcomes with students, CPS was not a “one size fits all” for working with every student. Moreover, teachers indicated that CPS often worked best when combined with other approaches (Gruntman, 2014). Lott (2018) indicated similar findings, where employees identified a need for some sort of balance between CPS with a traditional reward-and-punishment system that is typically seen in juvenile justice settings.
Chapter Four: Methods

Study Setting

The residential program in this study is part of a small non-profit agency that works with youth and families involved in the juvenile justice system in Oregon. The program is a behavioral modification program that serves adjudicated boys ages 13-18 in custody of the Oregon Youth Authority (OYA). The OYA serves approximately 1,500 youth, 86% of which are male (Oregon Youth Authority, 2017). This residential program has a non-restrictive environment and no holds or restraints are used except for emergencies. In partnership with a local board of education, youth attend school on site. The program does not provide any psychiatric or medical services, but partners with local community-based organizations for these services off-site. The program offers drug and alcohol education services on site, but does not provide addiction-specific counseling or treatment. With these considerations in mind, all youth are screened and assessed prior to admission in order to ensure appropriateness of fit.

Study Design

The primary research question for this study is: What contributes to whether a youth’s time during a residential program leads to an unplanned transition? This study used an additional coverage mixed methods design with a primary quantitative core and supplemental qualitative component (QUANT+qual). In a QUANT+qual design, the quantitative methods are the core method in answering the study research question and the qualitative methods are a supplemental contribution (Morgan, 2014a). The findings
from both methods are then considered together for answering research questions and bringing forward the overall goals of the study (Morgan, 2014a).

This mixed methods design was selected as an ideal fit for this study for a couple of reasons. First, the partnership with the agency afforded a unique opportunity to understand the agency’s data sources for both strengths and weaknesses. In this case, the advantage of the QUANT+qual design is that it will capitalize on the strengths of the data sources with the quantitative core component and supplements weaknesses in these data sources with the qualitative supplemental component. Second, this design is a practical, feasible option for this setting. Residential programs are often chaotic in nature, which presents challenges for carrying out research processes while in the context of daily practice. By examining program records and interviewing staff, this study made efficient use of the agency’s resources with little disruption to the daily activities of the program.

**Sample for Quantitative Core**

There were three subquestions for the quantitative portion of this study: 1) Are a youth’s age, race/ethnicity, probation or parole status, and sex offense status associated with an unplanned transition from the residential program? 2) Is the amount of time and engagement level in individual sessions, group sessions, and family sessions associated with an unplanned transition from the residential program? 3) Are more home visits associated with an unplanned transition from the residential program?

To answer these questions, this study examined administrative program records. Employees are required to keep daily documentation of youth participation in various program activities. The sample for this study included program records for youth that
were in the residential program over a 22-month time period (N=101). The observation period started with the month that the agency began using CPS as the primary treatment modality and ended when the embedded researcher position ended. According to the program’s TOC, CPS plays an integral role in all aspects of treatment. When the agency adopted CPS, this changed their documentation. Therefore, program records prior to the agency using CPS were not used.

All data were de-identified prior to use in this study. The data were derived from several spreadsheets and merged into one spreadsheet for use in this study. All records were assigned study ID numbers. The dataset was in a person-period format, or long format, where rows of data represent each day that a youth was in the program. In total, there were 14,933 rows. The amount of days spent in the program ranged from 1-651. There were two cases where a youth had been admitted to the residential program twice within the study observation period. Agency staff were consulted on how to treat these two cases. According to the agency, the OYA and juvenile court system considers readmissions to programs as separate treatments, even if it is to the same facility. Considering a youth’s overall involvement in the system, he could have accrued or dropped charges, be referred to the program for different reasons, and therefore have different treatment needs for each admission. Therefore, these cases were assigned separate study ID numbers and treated as separate cases.

The dataset had less than 5% missing or incomplete data. The missing data were examined to see if patterns were present. The majority of the missing data were due to incomplete records, where only part of the record was documented. For example, time
and engagement level might be documented but no type of session was specified (group, individual, family). No patterns were determined. Due to such few incidents of missing data, these rows dropped from analyses.

**Variables for Quantitative Core**

The following describes the variables used in this study and how each was measured.

**Time.** Time spent in the program was recorded in the number of days a youth spent in the program. All cases started at 0 through the last day the youth was in the program.

**Transition.** The outcome variable of interest for this study was the type of transition a youth had from the program, whether it was planned or unplanned. This type of transition was a binary variable, with \textit{Planned}=0 and \textit{Unplanned}=1. For this study, an unplanned transition is defined as a runaway, arrest, or discharge from the program due to not fulfilling the requirements of a 30-day support plan. A 30-day support plan is established when there are imminent behavioral or safety concerns. This is often required by the OYA. A planned transition is as any other type of exit out of the program. When a youth exits the program, the program record is updated to reflect the type of transition. If the record was not clear, agency staff were consulted. For example, sometimes the record would say, “Went home due to behaviors.” In this example, “Went home due to behaviors” indicated that a 30-day support plan was not fulfilled and it was therefore an unplanned transition.
**Age.** Age was the youth’s age in years at the time of entry into the program as provided by the OYA.

**Race/ethnicity.** Race/ethnicity was the youth’s race/ethnicity as provided by the OYA at the time of entry into the program. Based on this information, racial/ethnic categories were limited to five categories and there was no indication if a youth identified with multiple racial/ethnic groups. The categories were coded categorically for this study as follows: *White/Caucasian=1, Hispanic/Latino=2, Black/African-American=3, Asian/Pacific Islander=4, and American Indian/Native American=5.*

**Status.** Probation or parole status was the youth’s status at the time of program entry as provided by the OYA. This was a dichotomous variable, with *Probation=1* and *Parole=2.*

**JSO.** Sex offense status was defined as whether a youth is a JSO or not. JSO youth are mandated to complete offense-specific treatment. This information is provided by the OYA when a youth enters the program. This was a binary variable, with *JSO=1* and *non-JSO=0.*

**Individual sessions.** Individual sessions included individual therapy and individual skill building sessions. Individual therapy is a one-on-one session led by a therapist. This is a required part of the youth’s treatment. Individual skill building is a one-on-one session with any staff member. Individual skill building is not required but encouraged. Individual therapy and individual skill building were combined into a single variable for all individual sessions. For each day that a youth was in the program, time spent in individual sessions was recorded in units of 15-minute increments, where 15
minutes is .25, 30 minutes is .5, and so on. If a youth had two or more sessions on the same day, the average time for that day was used in order to remain consistent with corresponding engagement levels.

**Individual engagement.** Engagement in individual sessions is documented along with the time spent in sessions for each respective session that a youth participates in. Engagement is recorded by the employee who led the session. Engagement level in individual sessions was recorded on a six-point scale, where 0=Absent or No Service, 1=Non-compliant/Refused, 2=Somewhat Engaged, 3=Engaged, 4=Moderately Engaged, 5=Significantly Engaged. If a youth had two or more sessions on the same day, the average engagement level was used.

**Group sessions.** Group sessions included group therapy and group skill building sessions. Group therapy is a group session led by a therapist. Group skill building is a group session led by any staff member. Groups, regardless of which type, are a required part of treatment. Group therapy and group skill building were combined into a single variable for all group sessions. For each day that a youth was in the program, time spent in group sessions was recorded in units of 15-minute increments. If a youth had two or more sessions on the same day, the average time for that day was used.

**Group engagement.** Engagement in group sessions is documented along with the time spent in a group session for each respective session that a youth participates in. Engagement in a group session is recorded on an individual level for each youth, not as a whole group. Engagement is recorded by the employee who led the session. Engagement level in group sessions was recorded on a six-point scale, where 0=Absent or No Service,
1=Non-compliant/Refused, 2=Somewhat Engaged, 3=Engaged, 4=Moderately Engaged, 5=Significantly Engaged. If a youth had two or more sessions on the same day, the average engagement level for the sessions was used.

**Family sessions.** Family sessions are sessions with parents/guardians/caregivers of youth. These sessions are conducted by therapists and can occur in person, on the phone, or off-site. Like individual and group sessions, they are recorded in units of 15-minute increments. If a youth had two or more family sessions on the same day, the average time for the sessions was used in order to remain consistent with corresponding engagement levels.

**Family engagement.** Engagement in family sessions is documented along with the time spent in a family session for each respective session that a youth participates in. Engagement in a family session is recorded on an individual level for the youth, not for other family members. Engagement is recorded by the therapist that led the session. Engagement level in family sessions was recorded on a six-point scale, where 0=Absent or No Service, 1=Non-compliant/Refused, 2=Somewhat Engaged, 3=Engaged, 4=Moderately Engaged, 5=Significantly Engaged. For each day that a youth was in a family session, the record for that day indicated the time and engagement level of the youth. If a youth had two or more sessions on the same day, the average engagement level for the sessions was used.

**Home visits.** Home visits are recorded on a daily basis by the agency by indicating a “yes” or “no” for each day. Home visits were therefore recorded as a binary variable, where Yes=1 and No=0 for each day that a youth was in the program.
Analysis for Quantitative Core

This study used event history analysis, also called survival analysis, to examine the time in the program until transition. Event history analysis is an umbrella term for a series of approaches used for examining time-to-event data (Allison, 2014; Guo, 2010; Mills, 2011). In social science research, studies using event history analysis have examined data such as time until arrest or time until adoption (Allison, 2014). In this study, the event of interest was defined as an unplanned transition. Event history analyses center around hazard rates, which is the probability of an event occurring at a given time period (Allison, 2014; Mills, 2011). Event history models assume that all cases “survive” until they experience the event. In this study it was assumed that all youth experience a planned transition unless otherwise stated. Therefore, defining the event as an unplanned transition (as opposed to a planned transition) is appropriate for the analysis and also helps to better understand program factors that affect the unplanned transition in an effort to prevent and it through improved social work practice and research. The findings can be interpreted oppositely to get information about what contributes to a planned transition, also in an effort to enhance and improve social work practice and research.

Event history analysis is similar to logistic regression. However, unlike regression models, event history analysis can account for censoring and time-varying covariates (Allison, 2014; Mills, 2011). Censoring is the ability to include cases in the analysis that do not experience the event or are still being observed at the end of the study period (Mills, 2011). For this study, any youth that did not experience an unplanned transition by the end of the observation period is censored. Time-varying covariates are
independent variables that have values that change over time. Since logistic regression models cannot account for the nature of time-varying data, the ability to incorporate time-varying covariates is an important advantage over logistic regression. In event history models, the hazard rate acts as the dependent variable (Mills, 2011). The hazard rate is the “conditional probability that an event occurs at a particular time interval” (Mills 2011, p. 2). Since the hazard rate is a function of time, event history models can adequately support censored data where participants did not experience the event (Allison, 2014; Guo, 2010; Mills, 2011).

SPSS 25.0 was used to analyze all data. This study used a multi-step process to select variables for analysis. First, descriptive statistics were examined for all variables to determine the range, distribution, and variance. Second, chi-square and correlation were conducted to test for any relationships and prepare for model building. Chi-square tests were conducted with demographic variables to test the relationship between these variables and whether a youth had experienced the event or not. Correlation tests were conducted with the program variables to explore the strength of relationships between variables and determine if multicollinearity may be an issue in further models.

Third, Kaplan-Meier (KM) estimates were conducted to compare survivor functions and plot survival curves. KM estimates are a descriptive, non-parametric method specific to event history analysis (Guo, 2010; Mills, 2011). KM estimates the survivor function, $S(t)$, which is the probability of not having the event at time $t$, or otherwise stated it is the probability of surviving past time $t$ (Guo, 2010; Mills, 2011). KM estimates compare whether there are statistically significant differences in survivor
functions between groups, which is used to select variables to include in final models. The most commonly used significance test is the log-rank test, also known as the Mantel-Cox test, which was the significance test used for this study (Mills, 2011). To assess which variables should go into the statistical models, Mills (2011) recommends examining the log-rank test and including variables that were significant at the 20-25 percent level ($p=.20$ or $.25$) and any variables that are considered important from a theoretical standpoint. These recommendations were followed for this study. Limitations of KM estimates include that only a limited number of variables can be used at once and it cannot estimate time-varying variables (Mills, 2011). For this study, KM estimates were only conducted with demographic variables. All of the program variables were considered time-varying.

Fourth, Cox proportional hazard models, also known as Cox regression, were selected as the method for analyzing all variables. Cox regression is favored among researchers for the ability to include time-varying covariates, partial likelihood estimation, and no assumptions about distribution of data (Allison, 2014; Guo, 2010; Mills, 2011). Partial likelihood estimation focuses on the order in which events occur, rather than an exact time of occurrence (Allison, 2014). Therefore, unlike other standard regression models, no intercept is given in Cox regression. Cox regression instead focuses on the hazard rate. In Cox regression models, the hazard ratio, $Exp(\beta)$ is the ratio of hazard rates (Mills, 2011). The hazard ratio is interpreted to give a percent change in the hazard, which is calculated with the formula $(e^{\beta}-1)\times100$ (Mills, 2011).
Cox regression models have historically required that data meet a proportional hazards assumption, which is that the hazard rate is constant over time (Guo, 2010). Allison (2014) has suggested that concerns over this assumption are often exaggerated, as the model itself is not as restrictive as parametric methods and time-varying covariates automatically violate this assumption (Guo, 2010). As such, Guo (2010) has suggested that is essential to make sure that time-varying covariates truly vary over time before incorporating them into the model. Allison (2014) recommends doing this by checking Schoenfeld residuals, however, this is not an option in SPSS. Instead, others have recommended to use scatterplots to visually examine if there are patterns in the data (Guo, 2010). If there is no clear, visible pattern then this violates the proportional hazards assumption and the variable indeed varies over time (Guo, 2010). In SPSS, this is done by doing a Cox regression model with the covariate as a fixed covariate, saving the partial residuals, and then graphing the partial residuals on a scatterplot. This method was followed for all possible time-varying variables in this study, including home visits, and time spent and engagement levels for group, individual, and family sessions. All variables were confirmed to be time-varying.

In order to conduct Cox regression analysis in SPSS, the data needs to be restructured from long to wide format. However, because the range of days in the program was from 1-651, this would mean that, once transposed, there would then be 651 variables for each of the time-varying variables, creating thousands of variables to include in the Cox regression analysis. This would not be feasible given the sample size and degrees of freedom. In order to restructure the data in a way that was feasible and
meaningful to the program, the time-varying variables were aggregated into time periods based on the program’s case review schedule. The case review is required by the OYA and the program. It is when the youth, therapist, probation/parole officer, family, and/or any others on his treatment team meet together to review treatment goals. The schedule for the case reviews is that the first one occurs on day 45, the second one occurs on day 90, and all subsequent ones occur every 90 days after that. Each of the time-varying variables were aggregated using the mean value for each of these time periods.

For the final step, six Cox regression models were implemented, beginning with adding fixed covariates, then adding time-varying covariates, then testing interaction effects between the time-varying covariates. The equation expressing Cox models with fixed covariates is expressed as follows:

\[ h_i(t) = h_0(t) \exp(\beta_1 x_{i1} + \ldots + \beta_k x_{ik}) \]

Where \( h_i(t) \) represents the dependent variable (the hazard rate at time \( t \) for subject \( i \)), \( h_0(t) \) is the unspecified baseline hazard function, \( x_i \) and \( x_k \) are the \( k \) independent variables, and \( \beta_1 \) and \( \beta_k \) are the regression coefficients (Guo, 2010).

For time-varying covariates, the expression of the Cox models is as follows:

\[ h_i(t) = h_0(t) \exp(\beta_1 x_{i1}(t) + \ldots + \beta_k x_{ik}(t)) \]

Where time \( t \) is added to the \( k \) covariates, \( \beta_1 x_{i1}(t) \), to represent the time-varying covariate (Mills, 2011).

For Cox models including fixed and time-varying covariates, the equation is expressed as follows:

\[ h_i(t) = h_0(t) \exp(\beta_1 x_{i1} + \beta_2 x_{i2}(t) + \ldots + \beta_k x_{ik}) \]
Where $\beta_1x_{1i}$ represents a fixed covariate and $\beta_2x_{1i}(t)$ represents the time-varying covariate.

In this model, the interpretation would be that the hazard at time $t$ depends on the value of $x_1$ and the value of $x_2$ at time $t$, and so on for all further $k$ covariates (Mills, 2011).

**Method for Qualitative Supplement**

There were two questions for the qualitative portion of this study: 1) Based on the quantitative findings, how do employees perceive what parts of the residential program influence a youth’s transition? and, 2) How does CPS influence a youth’s engagement and transition from the residential program?

This study had initially proposed to conduct a focus group with varying levels of staff. However, as is often the case in residential settings, coordinating a focus group would likely not be feasible due to having urgent programmatic issues that needed to be addressed. Additionally, it was not possible to schedule youth workers at the time because they needed to be supervising the youth. Therefore, this study conducted individual and dyadic interviews instead. This method had previously been used for a different study in the same setting (see Lott, 2018) and was a practical way to approach unforeseen scheduling conflicts that often arise in residential settings.

As part of the embedded researcher position with this agency and the insider-outsider role, it was critical to remain transparent throughout the study and include participants in all aspects of the research process in an effort to address any power dynamics and validate study findings. Throughout the process of this study, agency staff and leadership were regularly consulted to gather feedback on the development of research methods and processes. This included an iterative process of formal and
informal meetings where both research and program updates were provided in order to
determine that this study remained in alignment with intended goals and that the
qualitative interviews were structured in a way that was relevant to the participants and
agency as a whole.

Sample for Qualitative Supplement

There were 5 interviews, 4 individual and 1 dyadic, with 6 total participants.
Participants were recruited face-to-face and through agency email. Scripts for recruitment
are found in Appendix A. All participants gave written informed consent. This agency is
very small, and there are few full-time employees of the residential program. Employees
are highly visible at the agency and the agency as a whole is active within the local
juvenile justice system. Therefore, in order to maintain anonymity of participants,
identifying descriptive information has been limited here. However, there were no youth
workers (direct care staff) interviewed. All participants had previous experience working
with youth prior to working at the agency. The interviews lasted between 45-60 minutes.

An interview guide was used for all interviews. The guide was structured to
address both of the qualitative research questions. The interview guide was developed
based on Morgan’s (2016) inverse funnel format. In an inverse funnel format, the
interview begins with narrow questions and ends with broad questions (Morgan, 2016).
According to Morgan (2016), an inverse funnel “works well when the participants may
not have thought very deeply about a topic, even if they are generally familiar with it” (p.
64). This is relevant to this study, where employees are not expected to have thought
deeply about the research questions in this study but do have invaluable experience and
perspective. The interview guide began with presenting an overview of the quantitative analysis and findings to the group. Then, it moved on asking specifically about the role that CPS plays in the residential program. A complete version of the guide is found in Appendix B. The complete version included a greeting script, prompts for each question, and a closing script. There is an accompanying participant questionnaire and consent form, found in Appendices C and D, respectively.

**Analysis for Qualitative Supplement**

All interviews were audio recorded and then transcribed verbatim. Thematic analysis was used to analyze the data to identify emergent themes. Thematic analysis has been suggested as a useful analysis for narrative data (Morgan, 1997; 2016). Thematic analysis was also used in a previous qualitative study that was conducted in the same study setting (see Lott, 2018) and was a pragmatic, understandable way to share findings with practitioners and non-researchers at the agency.

To begin conducting the analysis, Grbich’s (2013a) five recommended stages for thematic analysis were followed (see Appendix E). Data analysis began with some preliminary steps of reviewing notes taken during the interviews, reviewing the research questions, reviewing the study’s theoretical framework, and segmenting the transcripts into groups of similar topics. Then, data was reduced to exclude any crosstalk, side talk, or other parts of the interview that were unrelated to the interview questions or research questions.

Then, each of the transcripts were read thoroughly and key concepts were underlined and color-coded, while also making descriptive comments in the margins. The
key concepts included topics or vocabulary that were emergent across each of the transcripts. The comments in the margins helped to track, contextualize, and relate the content back to the research questions and theoretical framework of the study.

 Lastly, conceptual mapping was done, per Grbich’s (2013b) recommendations. Conceptual mapping is useful for a broad overview or emergent themes and topics. One disadvantage of conceptual mapping is a tendency to oversimplify the data (Gbrich, 2013b). However, for this study, it was a useful tool as the interview content spoke to many different aspects of the broader, complicated juvenile justice system. A conceptual map helped to clarify where emerging themes fit together and within the context of the research questions.
Chapter Five: Results

Preliminary Findings for Quantitative Core

The sample included 101 male youth that were admitted to the residential program over a 22-month time period. The minimum number of days spent in the program was 1 and the maximum was 651, with a mean of 146.85 days and a median of 103.0 days (SD=122.94). Ages of youth ranged from 13 to 17 years, with a mean of 15.8 (SD=1.05). There were 56.4% White/Caucasian youth (n=57), 24.8% Hispanic/Latino youth (n=25), 11.9% Black/African-American youth (n=12), 2.0% Asian/Pacific Islander youth (n=2), and 5.0% American Indian/Native American youth (n=5). There were 74 JSO youth and 27 non-JSO youth. There were 75 youth on probation and 25 youth on parole.

There were 53 youth (52.5%) that experienced an unplanned transition, 32 youth (31.7%) that experienced a planned transition, and 16 (15.8%) youth that were still in the program at end of the study observation period. For purposes of the analysis, an unplanned transition was considered the event (coded as “1”) and youth that had planned transition or were still in the program were considered censored (coded as “0”). Therefore, there were 53 youth (52.5%) that experienced the event and 48 youth (47.5%) that were censored, or did not experience the event.

The average length of time spent in individual sessions ranged from .00 to 1.69 hours, with the total mean being .94 hours (SD=.32). The average engagement level for individual sessions ranged from .00 to 5.00, with the total mean being 3.29 (SD=1.18). The average length of time spent in group sessions ranged from .00 to 1.88, with the total
mean being 1.34 hours (SD=.28). The average engagement level for group sessions ranged from .00 to 3.50, with the total mean being 3.07 (SD=.35). The average length of time spent in family sessions ranged from .00 to 2.00 hours, with the total mean being .62 hours (SD=.50). The average engagement level in family sessions ranged from .00 to 5.00, with the total mean being 2.49 (SD=.17). The total number of home visits ranged from 0 to 67, with the mean being 14.26 home visits (SD=17.39). Table 5.1 displays descriptive statistics for all study variables.

### Table 5.1. Descriptives for study variables.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean (SD)</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>57</td>
<td>56.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>25</td>
<td>24.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>12</td>
<td>11.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>American</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American</td>
<td>5</td>
<td>5.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indian/Native American</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>2</td>
<td>2.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probation</td>
<td>76</td>
<td>75.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Parole</td>
<td>25</td>
<td>24.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>JSO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSO</td>
<td>27</td>
<td>26.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-JSO</td>
<td>74</td>
<td>73.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned</td>
<td>48</td>
<td>47.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unplanned</td>
<td>53</td>
<td>52.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>17</td>
<td>15.8 (1.1)</td>
<td>16</td>
</tr>
<tr>
<td>Days in Program</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>651</td>
<td>146.9 (122.9)</td>
<td>103</td>
</tr>
<tr>
<td>Home Visits</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>67</td>
<td>14.3 (17.4)</td>
<td>7</td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Spent</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>1.9</td>
<td>1.3 (0.3)</td>
<td>1.3</td>
</tr>
<tr>
<td>Engagement Level</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>3.5</td>
<td>3.1 (0.3)</td>
<td>3.1</td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Spent</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>1.7</td>
<td>0.9 (0.3)</td>
<td>1.0</td>
</tr>
<tr>
<td>Engagement Level</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>5</td>
<td>3.3 (1.2)</td>
<td>3.2</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Spent</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>2</td>
<td>0.6 (0.5)</td>
<td>0.6</td>
</tr>
<tr>
<td>Engagement Level</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>5</td>
<td>2.5 (1.7)</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Chi-square tests were conducted with the demographic variables. Two of the demographic variables, age and race/ethnicity, had more than three categories, so these variables were collapsed into three categories based on frequency counts. The race/ethnicity categories that were collapsed together included Black/African-American, Native American/American Indian, and Asian/Pacific Islander. White/Caucasian and Hispanic/Latino were each their own respective categories. For the age variable, ages 13-15 were grouped together, with ages 16 and 17 remaining in their own categories. Findings from chi-square tests indicated that among the demographic variables, race/ethnicity was the only variable had a significant relationship with experiencing an event, \(X^2(2) = 6.149, p = .046\). Hispanic/Latino youth were less likely to experience the event than all other youth.

Correlation tests revealed that several of the program variables had significant relationships. The strongest association was between the time spent in individual sessions and engagement level in individual sessions (\(r = .88, p < .01\)) time in family sessions and

| Table 5.2. Correlations among study variables. |
|-----------------|---|---|---|---|---|---|---|
| 1 Days in Program | - | | | | | | |
| 2 Home Visits | .72*** | - | | | | | |
| 3 Time spent in Groups | .41*** | .37*** | - | | | | |
| 4 Time spent in Individual | .19 | .12 | .37*** | - | | | |
| 5 Time spent in Family | .32*** | .23* | .26** | .41*** | - | | |
| 6 Engagement in Groups | .09 | .07 | .29** | .20* | .20* | - | |
| 7 Engagement in Individual | .14 | .14 | .88*** | .88*** | .39*** | .22* | - |
| 8 Engagement in Family | .39*** | .33*** | .50*** | .50*** | .83*** | .21* | .45*** | - |

Note. *: \(p < .05\); **: \(p < .01\); ***: \(p < .001\)
engagement in family sessions ($r=.83, p<.01$), and home visits with length of time in the program ($r=.72, p<.01$). Other variables were significantly associated with each other, some with weak to medium effect sizes. See Table 5.2 for correlations of variables.

KM estimates were obtained to further explore whether demographic variables would meet criteria to be included in the Cox models. The log-rank test of significance was used to determine if there were significant differences in survival time between groups. None of the demographic variables were found to have statistically significant differences in survival functions. However, there were variables that were relevant per Mills’s (2011) recommendation that estimates be significant at the 20-25 percent level. KM estimates indicated that JSO youth had different survival curves at the 16 percent level, $X^2(4)=1.97 p=.16$. KM estimates also indicated that race/ethnicity also had

**Figure 5.1. Survival plot for race/ethnicity.**
different survival curves at the 29 percent level, $X^2(4), p=.29$. Although this is slightly higher than the recommendation, given that race/ethnicity was the only variable found to be significant in the chi-square analysis, and the strong theoretical component behind that variable, it was considered an important variable to include in further models. Figures 5.1 and 5.2 display the survival curve plots for the KM estimates for the JSO and

**Figure 5.2. Survival plot for JSO.**

![Survival plot for JSO](image)

race/ethnicity variables.

**Cox Regression Findings for Quantitative Core**

Based on the exploratory descriptive analyses, it was determined that race/ethnicity and JSO youth were the demographic variables to be included in the final models. Race/ethnicity was dummy coded with White/Caucasian as the reference group. JSO youth was a categorical variable with non-JSO youth as the reference group. Based on the correlation table, most of the time spent in a session and the engagement level of the respective session were significantly correlated. Therefore, these variables were tested
as interaction effects in subsequent models. In total, seven Cox regression models were conducted to determine how the covariates impacted an unplanned transition. The covariates included in the final models tested were as follows. The “t” in parenthesis indicates covariates that were time-varying.

1. **Baseline model**: No covariates

2. **Demographics only**: Race/Ethnicity + JSO

3. **Demographics, home visits, and time spent in sessions**: Race/Ethnicity + JSO + Home Visits(t) + Time in Group(t) + Time in Individual(t) + Time in Family(t)

4. **Demographics, home visits, and engagement in sessions**: Race/Ethnicity + JSO + Home Visits(t) + Engagement in Group(t) + Engagement in Individual(t) + Engagement in Family(t)

5. **Demographics, home visits, main and interaction effects for time and engagement in group sessions**: Race/Ethnicity + JSO + Home Visits(t) + Time in Group(t) + Engagement in Group(t) + Time*Engagement in Group(t)

6. **Demographics, home visits, main and interaction effects for time and engagement in individual sessions**: Race/Ethnicity + JSO + Home Visits(t) + Time in Individual(i) + Engagement in Individual(t) + Time*Engagement in Individual(t)

7. **Demographics, home visits, main and interaction effects for time and engagement in family sessions**: Race/Ethnicity + JSO + Home Visits(t) +
Time in Family ($t$) + Engagement in Family ($t$) + Time*Engagement in Family ($t$)

**Model 1.** The first model was tested with no covariates in order to establish the baseline likelihood test for model fit. For this model, the -2 log likelihood (-2LL) was 495.03.

**Model 2.** The second model investigated the impact of race/ethnicity and JSO status on time to an unplanned transition to see how these demographic variables played a role prior to including any program variables. Findings indicated that this model did not fit the data well, -2LL=426.57, $X^2= 8.727$, df=5, $p=.120$. Although none of the covariates in this model were statistically significant, it is worth noting their hazard ratios in order to have a baseline understanding of the different hazards that racial/ethnic groups and JSO youth had in time to an unplanned transition. When compared to White/Caucasian youth, Hispanic/Latino youth had a 51.1% decreased hazard for an unplanned transition and Asian/Pacific Islander youth had a 42.9% decreased hazard. In other words, Hispanic/Latino and Asian/Pacific Islander youth were more likely to experience a planned transition from the program when compared to their White/Caucasian counterparts.

Black/African-American youth had a 19.1% increased hazard of experiencing an unplanned transition and American Indian/Native American youth had a 71.4% increased hazard. Or stated differently, Black/African-American youth and American Indian/Native American youth were more likely to have an unplanned transition. When controlling for race/ethnicity, JSO youth had a 48.2% decreased hazard of experiencing an unplanned
transition, or were more likely to have a planned transition from the program than non-JSO youth.

**Model 3.** The next model investigated the impact that home visits and time spent in individual, group, and family sessions had on experiencing an unplanned transition, while controlling for demographic variables. This model was a better fit to the data than the previous model, \(-2LL=363.10, X^2=71.24, \text{df}=9, p=.00\). With the contribution of the program variables, there were some notable changes in demographic covariates. The hazard for JSO youth decreased further to 64.5% and was statistically significant at \(p<.01\), indicating that JSO youth were less likely to experience an unplanned transition at a 64.5% less rate than non-JSO youth (\(\beta=-1.04, \text{SE}=.39, \text{exp}(\beta)=.36, p=.01\)). None of the race/ethnicity variables were found to be significant, however, there were some substantial changes in hazard ratios. The hazard ratio for American Indian/Native American youth increased to 138.5% and for Black/African-American youth the hazard ratio increased to 45.3%.

For the program variables, all were associated with a decreased hazard of an unplanned transition, or in other words, more home visits and time spent in sessions was associated with having a planned transition. Of the program variables, home visits and time spent in groups were found to be significant at \(p<.01\). Youth with more home visits had a 19.9% decreased hazard in experiencing an unplanned transition, \(\beta=-.22, \text{SE}=.05, \text{exp}(\beta)=.80, p=.00\). Youth with more time in groups had an 86.7% decreased hazard in experiencing an unplanned transition, \(\beta=-1.04, \text{SE}=.50, \text{exp}(\beta)=.36, p=.01\). Table 5.3 includes results for this model.
**Model 4.** A fourth model was tested to investigate the impact that home visits and engagement levels in individual, group, and family sessions had on experiencing an unplanned transition, while controlling for demographic variables. This model was a good fit to the data, -2LL=373.41, $X^2=70.50$, df=9, $p=.00$. Similar to the previous model, the contribution of program variables notably changed the hazard ratios for demographic variables. For American Indian/Native American youth, the hazard ratio increased to 85.5% hazard of having an unplanned transition. For Black/African-American youth, the hazard ratio increased to 50.4% hazard of having an unplanned transition. The hazard for JSO youth was also found to be statistically significant in this model, with JSO youth having a 69.6% decreased hazard in experiencing an unplanned transition, $\beta=-1.19$, SE=.38, exp($\beta$)=.30, $p=.00$.

Just like the previous model, home visits and engagement in all sessions were significantly associated with a decreased hazard of experiencing an unplanned transition. For home visits, the ratio decreased further to 20.2%, indicating that youth with more home visits had a 20.2% decreased hazard of having an unplanned transition, $\beta=-.23$, SE=.05, exp($\beta$)=.80 $p=.00$. For engagement in groups, youth with higher levels of engagement in group had a 50.9% significantly decreased hazard of having an unplanned transition, $\beta=-.71$, SE=.30, exp($\beta$)=.49, $p=.02$. Table 5.3 includes results for this model.

**Model 5.** In order to examine how the time spent and engagement level in group sessions interacts, a fifth model was tested including demographic variables, home visits, main effect for time in groups, main effect for engagement in groups, and the interaction of time and engagement in groups. This model indicated a good fit to the data,
2LL=364.82, \( X^2=102.82, \) df=9, \( p=.00 \). As in previous models, JSO youth and home visits had significantly decreased hazards of an unplanned transition, with JSO youth having a 65.4% decreased hazard (\( \beta=-1.06, \) SE=.39, exp(\( \beta \))=.35, \( p=.01 \)) and home visits having a 19.6% decreased hazard (\( \beta=-.22, \) SE=.05, exp(\( \beta \))=.80, \( p=.00 \)). The race/ethnicity variables, although not significant, reflected similar patterns as in previous models. Hispanic/Latino and Asian/Pacific Islander youth had decreased hazards, and Black/African-American and American Indian/Native American youth had increased hazards of an unplanned transition.

**Table 5.3. Models 3 and 4.**

<table>
<thead>
<tr>
<th></th>
<th>Model 3</th>
<th></th>
<th>Model 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>SE</td>
<td>( p )</td>
<td>exp(( \beta ))</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>-.63</td>
<td>.41</td>
<td>.13</td>
<td>.53</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>.37</td>
<td>.41</td>
<td>.36</td>
<td>1.45</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>-.07</td>
<td>1.04</td>
<td>.95</td>
<td>.94</td>
</tr>
<tr>
<td>American Indian/Native American</td>
<td>.87</td>
<td>.57</td>
<td>.13</td>
<td>2.39</td>
</tr>
<tr>
<td>JSO</td>
<td>-</td>
<td>.39</td>
<td>.01**</td>
<td>.36</td>
</tr>
<tr>
<td>Home Visits</td>
<td>-.22</td>
<td>.05</td>
<td>.00***</td>
<td>.80</td>
</tr>
<tr>
<td>Time in Group</td>
<td>1.04</td>
<td>.39</td>
<td>.01**</td>
<td>.36</td>
</tr>
<tr>
<td>Time in Individual</td>
<td>-.02</td>
<td>.45</td>
<td>.96</td>
<td>.98</td>
</tr>
<tr>
<td>Time in Family</td>
<td>-.49</td>
<td>.32</td>
<td>.13</td>
<td>.62</td>
</tr>
<tr>
<td>Eng. in Group</td>
<td></td>
<td></td>
<td></td>
<td>-.71</td>
</tr>
<tr>
<td>Eng. in Individual</td>
<td></td>
<td></td>
<td></td>
<td>-.13</td>
</tr>
<tr>
<td>Eng. in Family</td>
<td></td>
<td></td>
<td></td>
<td>-.10</td>
</tr>
</tbody>
</table>

Note. *: \( p<.05 \); **: \( p<.01 \); ***: \( p<.0001 \); Eng.=Engagement in sessions.
For the main effects variables, time and engagement in group sessions, neither were significant in this model, indicating a change from previous where each of these variables were significant when included separately. As expected, the interaction of time spent in groups and engagement in groups was not significant. Table 5.4 includes all results for this model.

**Model 6.** A sixth model was tested to examine the interaction of time spent and engagement in individual sessions. This model included demographic variables, home visits, main effect for time spent in individual sessions, main effect for engagement in individual sessions, and the interaction of time spent and engagement in individual sessions. This model was a good fit to the data, \(-2\text{LL}=370.89, \chi^2=65.76, \text{df}=9, p=.00\). Again, as in previous models, JSO youth and youth with more home visits were found to have a significantly decreased hazard of an unplanned transition, with JSO having a 64.4% decreased hazard (\(\beta=-1.03, \text{SE}=0.40, \exp(\beta)=0.36, p=.01\)) and more home visits having a 21.1% decreased hazard (\(\beta=-0.24, \text{SE}=0.40, \exp(\beta)=0.79, p=.00\)). Interestingly, though not significant, the hazard ratio for the Asian/Pacific Islander variable deviated from previous models, and indicated a 26.2% increased hazard of an unplanned transition. However, this extreme change should be interpreted with consideration to the small portion of the sample that Asian/Pacific Islander youth make up (n=2). Hispanic/Latino youth still had a decreased hazard, 54.2%, and in this model the \(p\) value decreased substantially to .06. As in previous models, Black/African American youth and American Indian/Native had increased hazard of an unplanned transition compared to White/Caucasian youth.
In this model, the main effect of time spent in individual sessions had an 86.2% significantly decreased hazard of an unplanned transition at $p<.05$ ($\beta=-1.98$, $SE=.94$, $\exp(\beta)=.14$, $p=.04$). The main effect of engagement in individual sessions was also significant at $p<.05$, indicating a 41.7% decreased hazard of an unplanned transition ($\beta=-.54$, $SE=.25$, $\exp(\beta)=.58$, $p=.03$). The interaction of time spent and engagement in individual sessions was also significant, $\beta=.72$, $SE=.22$, $\exp(\beta)=2.05$, $p=.00$. As Guo (2010) states, interpreting the hazard rate for an interaction term is not meaningful in this context, because the interaction term represents the effect of engagement in individual sessions on time spent in individual sessions. In other types of analyses, graphs are often used to help explain how the interaction of two variables works. However, because these are time-varying variables, there is not a meaningful or feasible way to graph this.

There are other ways to interpret this finding within the current context, though. Previous models that included the main effects separately (Models 3 and 4), and this current model, all indicated that time spent and engagement in individual sessions as main effects had a decreased hazard of an unplanned transition. Given that the coefficient for the interaction term is positive and that correlation between time spent and engagement in individual sessions also had a strong, positive relationship ($r=.88$, $p<.001$), it can be concluded that the time spent in individual sessions and engagement in individual sessions have a significant positive effect on one another, and that this interaction, when controlling for demographic variables and home visits, significantly impacts whether youth will experience an unplanned transition. Table 5.4 includes all results for this model.
Model 7. A final model was tested to examine whether demographics, home visits, main effects for time spent in family sessions, main effects for engagement in family sessions, and the interaction of time spent and engagement in family sessions had an impact on experiencing an unplanned transition. In this model, the variable for Hispanic/Latino youth was significant at $p<.05$ for a 59.2% decreased hazard of an unplanned transition, $\beta = - .90, SE = .41, \exp(\beta) = .41, p = .03$. Other race/ethnicity variables remained consistent with the majority of previous findings, where Asian/Pacific Islander youth had a decreased hazard, and Black/African-American and American Indian/Native American youth had an increased hazard of an unplanned transition.

Consistent with all other findings, JSO youth had a 71.5% significantly decreased hazard ($\beta = -1.26, SE = .39, \exp(\beta) = .284, p = .00$) and more home visits had a 20.8% significantly decreased hazard ($\beta = - .23, SE = .05, \exp(\beta) = .79, p = .00$). When controlling for demographic variables and home visits, the main effects for time spent in family sessions not significant, nor were the main effects for engagement in family sessions. As such, the interaction effect for time spent and engagement in family sessions was also not significant. Table 5.4 includes all results for this model.

Findings for Qualitative Supplement

The themes presented here are indicative of the many intersections of residential care and juvenile justice, while also relating to the context of this specific program. For the first qualitative research question, there were three themes. The first theme speaks to the significance of race/ethnicity in the juvenile justice system, the role that it plays at every point of interaction in the system, and how it impacts the experience of youth of color in
the residential program. The second theme relates to the important role that family and culture plays in a youth’s treatment experience, especially culture as a motivational source, culture of families, and historical experiences with systems. The third theme is about the residential care structure, in that programmatic changes within the agency made differences and the important role that staff and peer support plays in the program. There were two themes for the second qualitative question. The first theme relates to how CPS fosters a sense of agency and power because it validates youths’ feelings and perspectives. This is particularly important for this population of youth, as much of their freedom and choice has been taken away. The second theme is about how CPS fosters an internalization process for youth, lending itself to what participants call “the switch”- a key moment in treatment when youth seem to make a significant change in their overall demeanor, attitude, and engagement in treatment. However, the internalization process is dependent on youths’ background, culture, and experiences prior to being in this residential program, so therefore progress should be considered on a continuum rather than a finite point in time.

The themes are presented here and organized by the qualitative research questions as follows.
Table 5.4. Models 5, 6, and 7.

<table>
<thead>
<tr>
<th></th>
<th>Model 6</th>
<th></th>
<th></th>
<th></th>
<th>Model 7</th>
<th></th>
<th></th>
<th></th>
<th>Model 8</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$SE$</td>
<td>$p$</td>
<td>$\exp(\beta)$</td>
<td>$\beta$</td>
<td>$SE$</td>
<td>$p$</td>
<td>$\exp(\beta)$</td>
<td>$\beta$</td>
<td>$SE$</td>
<td>$p$</td>
<td>$\exp(\beta)$</td>
</tr>
<tr>
<td>Hisp/Latino</td>
<td>-.66</td>
<td>.41</td>
<td>.11</td>
<td>.52</td>
<td>-.78</td>
<td>.41</td>
<td>.06</td>
<td>.46</td>
<td>-.90</td>
<td>.41</td>
<td>.03*</td>
<td>.41</td>
</tr>
<tr>
<td>Blk/AfrAmer</td>
<td>.45</td>
<td>.41</td>
<td>.28</td>
<td>1.56</td>
<td>.42</td>
<td>.42</td>
<td>.31</td>
<td>1.52</td>
<td>.30</td>
<td>.40</td>
<td>.45</td>
<td>1.35</td>
</tr>
<tr>
<td>As/PacIslander</td>
<td>-.05</td>
<td>1.04</td>
<td>.96</td>
<td>.95</td>
<td>.23</td>
<td>1.06</td>
<td>.83</td>
<td>1.26</td>
<td>-.40</td>
<td>1.03</td>
<td>.70</td>
<td>.67</td>
</tr>
<tr>
<td>AmerInd/NavAm</td>
<td>.62</td>
<td>.57</td>
<td>.28</td>
<td>1.86</td>
<td>.66</td>
<td>.56</td>
<td>.24</td>
<td>1.94</td>
<td>.59</td>
<td>.56</td>
<td>.29</td>
<td>1.81</td>
</tr>
<tr>
<td>JSO</td>
<td>-1.06</td>
<td>.39</td>
<td>.01**</td>
<td>.35</td>
<td>-1.03</td>
<td>.40</td>
<td>.01**</td>
<td>.36</td>
<td>-1.26</td>
<td>.39</td>
<td>.00***</td>
<td>.29</td>
</tr>
<tr>
<td>Home visits</td>
<td>-.22</td>
<td>.05</td>
<td>.00***</td>
<td>.80</td>
<td>-.24</td>
<td>.05</td>
<td>.00***</td>
<td>.79</td>
<td>-.23</td>
<td>.05</td>
<td>.00***</td>
<td>.79</td>
</tr>
<tr>
<td>Time in Group</td>
<td>-.40</td>
<td>1.71</td>
<td>.81</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng. in Group</td>
<td>-.05</td>
<td>.40</td>
<td>.90</td>
<td>.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time*Eng. Grp</td>
<td>-.51</td>
<td>.59</td>
<td>.39</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in Ind.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.98</td>
<td>.94</td>
<td>.04*</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng. in Ind.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.54</td>
<td>.25</td>
<td>.03*</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time*Eng Ind.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.72</td>
<td>.22</td>
<td>.00***</td>
<td>2.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.07</td>
<td>1.09</td>
<td>.33</td>
<td>.34</td>
</tr>
<tr>
<td>Eng. in Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.21</td>
<td>.21</td>
<td>.32</td>
<td>.81</td>
</tr>
<tr>
<td>Time*Eng Fam.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.31</td>
<td>.24</td>
<td>.19</td>
<td>1.37</td>
</tr>
</tbody>
</table>

Note. *: $p<.05$; **: $p<.01$, ***: $p<.001$
Question 1: Based on the quantitative findings, how do employees perceive what parts of the residential program influence a youth’s transition?

Theme 1: Significance of Race/Ethnicity

Across all of the interviews, participants acknowledged the prevalent role that race and ethnicity play in every part of the juvenile justice system, and subsequently residential treatment. Participants described that the system in general treats youth like “little adults,” and this seems to be especially exacerbated for youth of color. As one participant stated, the system is inherently punitive with expectations for behaviors and attitudes that match a “white centric” style of communication, which creates challenges for youth of color across the system. Youth of color may become labeled as problematic in a residential care environment and throughout the juvenile justice system. One participant described how what might be considered a normal level resistance from White youth might be labeled as “verbally aggressive”, “posturing”, or “non-compliant” for youth of color. As another participant described:

>Youth] get placed some place they don’t want to be, and so resistance to a system that feels oppressive when society feels oppressive can show up and manifest in our kids of color in a way that necessarily doesn’t in some our White kids.

Racial/ethnic disparities are also impacted by location and the county that the youth is processed in. The culture or philosophy of a county or local court system can greatly influence how youth of color are treated within the greater system. One participant, in describing a particular county, explained how youth of color are often “caught” more than White youth and subsequently become more frequently involved in
the system. The result is that they go from program to program, extending their time in
the system, and eventually ending up in a residential placement when they probably
shouldn’t be involved in the first place. As one participant stated, “...You can think of
some of the youth of color who are here who maybe shouldn’t be here. This kid just got
cought one time too many.”

Finally, participants discussed that racial/ethnic representation among helping
professionals in the system appears to make a difference. Most of the participants
acknowledged that while there are a few bilingual staff at the program, there are even
fewer staff of color. Additionally, most of the probation/parole officers for the youth in
this program are White. Some participants reflected on past times when there has been a
more diverse staff group, stating that it made a difference in the milieu and in building
relationships with youth. They also stated that they notice this same difference when
there is more diversity among probation/parole officers.

Theme 2: Family and Culture

The role of family is an important motivational factor for youth in this setting, and
participants were encouraged by the quantitative findings suggesting that youth with
more home visits and family sessions had higher rates of planned transitions. Participants
described family as an important motivational factor, an “incentive” for youth to return
back to something in their communities. Sometimes, the youth in this program play more
of a parental role in their families, particularly if they are coming from one-parent homes.

The influence of family is driven by cultural values. Participants talked about how
youth from non-Western cultures, especially if their parents/guardians are first
generation, have a “relational piece from [their] country” that serves as a protective factor for youth. This most notable in participants’ experiences working with Hispanic/Latino youth and families. As one participant described, it is “…the family structure and strength, the size of the family and having more people that have got their back, walking them through this journey…that cultural piece.”

Culture of the family unit itself is also important to youths’ overall engagement in treatment. When considering family dynamics, participants discussed how important it is to consider “…trauma history and their historic family involvement within the systems, whether they were positive or negative.” In a more specific example, one participant described a case where a Native American youth was living with an adoptive family and struggling to engage in the program. As this participant described, “…they are already continually questioning their own role in the family, whether the family’s permanent, until that’s when they get into an internal battle.” Then, treatment becomes less a focus of skill building or rehabilitation, and more about “helping them find their way in the family and helping the family find their way to them.”

Participants also recognized aspects of family cultures that are unique to JSO youth. More often than not, JSO youth do not display “outward” or “external” behaviors, rather, the behaviors are typically more “internal” and there is more “shame and blame” associated with the nature of their charges. This manifests in family dynamics, where families of JSO youth are sometimes in denial, “hands off,” “dismissive,” or in some extreme cases, “disown” the youth due to their charges. Furthermore, family involvement or home visits may be complicated by court orders that do not allow the youth to be
around a victim or other family members.

**Theme 3: Residential Care Structure.**

This program has evolved and made several significant changes over the last few years, and participants talked about the impact that this has had on youth engagement with the program. The program hired an additional therapist so that therapists could manage smaller caseloads as a cohort. Therapists now lead groups for their cohorts and play more of an interactive role, as opposed to previously when youth workers primarily led groups while also monitoring and managing the milieu. Participants stated that since moving to this model, they have noticed that youth are able to build relationships in their cohorts and have more peer support.

The program also experienced a significant change with their school system on-site. They now work with a school that specializes in working with youth with complex needs inside and outside of the classroom, which was not the case with their previous educational partner. The current school also uses CPS, which participants stated has made the program more cohesive. With the new school system, youth are now staying in the classroom throughout the day every day, where as before, youth were being removed from the classroom every day. One participant noted that, “There was one day when there only three kids in school last year. Our numbers [now] are zero. Zero kids get kicked out of school.”

Another important component of residential care is having a trained and steady staff group, particularly the youth workers as they spend the most time throughout the day with youth. Unfortunately, there are periods of time where staff turnover is high or
the milieu is chaotic or demanding and staff become burned out. When turnover is low, staff are able to be fully trained and support each other. This in turn impacts youth engagement, because youth and staff can build more meaningful relationships. As one participant described, “I think if a kid feels comfortable and he has people that he feels like he can trust and feel safe around, he’s more likely to engage in this process.”

Finally, participants acknowledged that the inherent nature of living in a group environment is challenging in and of itself. As one participant stated, “Any human needs a break from this place. The staff, the kids, everything. Everybody needs time to recharge.” Sometimes, youth come to a residential setting and the placement is simply not a right fit for him for a multitude of reasons, whether it’s the milieu, or the other youth, or the staff, or any other aspect of the setting. One participant stated it this way:

And then you have the kid that could probably do well in the community, but he’s here and he’s facing all the residential problems that are hard for anybody to deal with. Living with 17 other kids, being told what to do every day. He probably would have had a skill set to be successful in the community, but he’s unsuccessful here because of all the extra stressors that happen here.

**Question 2: How does CPS influence a youth’s engagement and transition from the residential program?**

**Theme 4: Agency and choice.**

All of the participants discussed that by the time a youth is placed in a residential program, much of their own power and choice has been stripped from them. One participant stated, “These youth are particularly vulnerable because they’ve been put in the custody of the state. So much of their autonomy has been taken away.” With CPS, youth are involved a structured problem-solving process with adults, where both parties
mutually focus on acknowledging needs and finding solutions. Participants described how through CPS, youth can “help come up with solutions that [they] can actually enact, and that’s something that [they] can have power over.”

The CPS model is a contrast to a reward-and-consequence behavioral approach, something which the participants discussed is embedded in the juvenile justice system. On participant described that the youth coming into the program are, “used to cause-and-effect, consequence and reward, and so [CPS] shifts that.” Hence, coming to this program and engaging in CPS can be a disconcerting adjustment for youth when they first enter the program. Another participant described it in this way:

Well it’s kids that come from a system that tells them what to do, to a system where they have to make decisions. And [the juvenile justice system] haven’t taught kids how to make decisions, [which is] what CPS is supposed to do or supposed to help with...While we treat youth offenders of whatever variety like little adults, I think we’re always going to be faced with that problem.

The skills a youth might gain through a CPS process may be different for each individual youth, depending on factors such as race and ethnicity, trauma, and historical experiences with various systems. One participant described how youth who have had less trauma experiences or have had less negative interactions with systems can impact how youth are able to adjust and participate with the CPS processes:

Kids who’ve had negative [interactions] with the police, like maybe they don’t have documentation or they’re from a repressed group, I feel like those who have significant trauma issues,...may impact their ability to engage. For kids that have less of that institutionalized fear of oppression, who have stronger social skills, and who don’t have as much trauma exposure, I think they can start with having a conversation more quickly.

Overall, all participants agreed that once youth start engage with the CPS process in some way, it supports a sense of ownership and participation in their own lives. A
participant stated that, “It really gives them a lot of that power and control that they are desperately searching for.”

**Theme 5: Internalization**

Participants discussed how CPS fosters an internalization process of self-awareness for youth. Internalization will look different for each individual youth, but participants stated that there is a noticeable shift when youth begin to adjust to the CPS process and start becoming more self-aware. So much so, that the program has collectively nicknamed this “the switch,” where a youth becomes remarkably different in his demeanor, attitude, interactions with peers, and engagement the program. One participant described it in this way:

> It’s just kind of like you see that switch for them, and you see that a-ha, epiphany moment for them. And you see it not only in their demeanor, but you see it in their life. They’ve got it, whatever that looks like for them.

Most of the participants described how this “switch” tends to happen around the three or four-month mark. As one participant stated, “The kids who are able to get over that first three or four months and actually learn the process and engage in it are probably the one’s that we’ve gotten out the door successfully.”

However, not all youth are able to easily reach the moment of “the switch,” and some youth “really struggle” with the process. Particularly for youth who have had significant trauma histories, the focus of a CPS process has to be much different:

> For a lot of our kids with significant trauma, building and maintaining positive relationships is a challenge...So their place to start isn’t having a conversation, it’s not about identifying challenges or coming up with solutions. They’re just having the conversation or sitting in the same room with the staff that they don’t ever want to see again in their life.
For some youth, especially youth with significant trauma histories, just being in the milieu, whether they are engaging in specifics of the CPS model or not, is considered progress. In particular, the intersection of culture, race, ethnicity, and trauma may impact how a youth handles the milieu, which can in turn impact how youth engage in CPS. With consideration to this, participants stated that this is why it is ultimately important for progress in a residential setting to be thought of as a “continuum” rather than a black-and-white point of completion.

This program hopes that CPS contributes to something learned or gained, no matter what type of transition a youth has or where a youth is going next, and that this will ultimately support a youth having “success” in the long run. As one participant described, whether the youth spent a few weeks or longer in the program, “…[he hopefully will] gain something that is going to change how he’s going to operate in another environment. And indeed, his success in one environment might very much be contingent upon his failure in a different environment.”
Chapter Six: Discussion and Conclusion

Discussion

Studies of residential treatment have had varying results about the impact of demographic factors, such as age, types of offenses, and race/ethnicity, on treatment outcomes. In this study, across almost every model, JSO youth had significantly higher rates of planned transitions from the program. Literature on residential treatment and JSO youth does not give a complete picture about best practices for JSO youth (see Dwyer & Letourneau, 2011). Participants in this study describe that JSO youth typically have less outward or external behavioral concerns compared with their non-JSO peers. As the participants indicated, the CPS model requires youth to engage in a process of internalizing their behaviors. Considering the program’s TOC, perhaps JSO youth in this setting, due to less of external behavioral concerns, are able to engage in the CPS processes more readily or in a different way than their peers and therefore have less of a risk of an unplanned transition.

JSO youth are also required to complete offense-specific treatment, which typically includes more tailored treatment goals than non-JSO youth. JSO youth may therefore have more frequency or a different quality of sessions in this setting. It is possible that JSO youth have to participate in more groups or different types of groups than their non-JSO peers. This lends to the behavioral component of engagement theory, which suggests that dosage and frequency in sessions are a source of treatment engagement (Cunningham et. al., 2009). Given that JSO youth typically have less external behavioral concerns and more specific treatment requirements, it is therefore not
surprising that they have less of a rate of unplanned transitions. This also resonates with other studies that have found that youth sexual offenses had improved outcomes (McMackin et al., 2004).

Race/ethnicity is a prominent factor throughout this study, in both the quantitative and qualitative components. This is a critical aspect of youths’ experience in the residential program, and in their overall experience with the juvenile justice system. From the quantitative findings, there were dramatic differences in the hazard ratios for race/ethnicity, although exact values of the hazard ratios fluctuated. This could have been due to the small sample size and that some of the racial/ethnic groups examined in this study had few members. There were 25 Hispanic/Latino youth, 12 Black/African-American youth, 2 Asian/Pacific Islander and 5 American Indian/Native American youth. These small numbers may also contribute to why race/ethnicity did not come up as statistically significant across most of the Cox models, except for Hispanic/Latino youth in the final model testing the interaction of family sessions. Regardless, across all of the models, Hispanic/Latino and Asian/Pacific Islander youth were less likely to have to have unplanned transitions while Black/African-American and American-Indian Pacific Islander youth were more likely to have unplanned transitions.

The qualitative interviews further indicated that the role of race/ethnicity is difficult to ignore in this environment, as evidenced by the theme “Significance of Race and Ethnicity.” Miller, Anderson-Nathe, and Meinhold (2014) describe the complex ways in which race and ethnicity intersect with the juvenile justice system, something that participants also discussed in the qualitative findings. The participants discussed how
youth of color are often perceived and labeled as having behaviors that would otherwise be considered normal resistance to being in a residential program, such as “verbally aggressive,” “posturing,” or “non-compliant.” Such labeling may be a product of the intersection of race and ethnicity with hegemonic masculinity, such as displays of power and ownership, aggression, and competition (Abrams, Anderson-Nathe, Aguilar, 2008; Miller, Anderson-Nathe, & Meinhold, 2014). There is more that needs to be understood in regards to how biases towards race and ethnicity intersect with perceptions of masculinity in juvenile justice environments.

Historical trauma and family history may also vary for individual youth depending on their race/ethnicity, which adds further considerations for the ways in which youth of color interact with the system. This aligns with Miller, Anderson-Nathe, and Meinhold’s (2014) position that racial/ethnic disparities in juvenile justice are multifaceted and cannot be easily unpacked. Certainly in this study, the qualitative interviews touched on this, where participants acknowledged that depending on youths’ race and ethnicity, trauma background, and prior interactions with systems, it can have an impact on their ability to engage in the residential environment. Additionally, participants acknowledged that there are some youth of color that should not be in a residential program at all, but are “caught” more than White/Caucasian youth. There is no single way to address systemic oppression in a residential program, and yet it is certainly cause for concern in considering treatment needs for individual youth. Some authors have described how different parts of residential treatment worked for different demographics of youth (see Ryan & Yang, 2005), but overall there is very little literature in the way of
racial and ethnic considerations in residential treatment or interventions in residential treatment. Given the myriad of evidence of disparities for youth of color in the juvenile justice system, there is more that needs to be understood about how residential programs can better support youth of color.

Interestingly, Hispanic/Latino youth comprised of nearly one-fourth of the sample and had a higher rate of planned transition compared with their White/Caucasian counterparts. In the model testing for the interaction of time spent and engagement in family sessions, Hispanic/Latino youth were found to have a statistically significant decreased hazard of an unplanned transition when compared to White/Caucasian youth. Considering the disparate rates at which youth of color have contact with the system, this finding during the quantitative analysis was unexpected. However, participants highlighted the protective factor that cultural values play, especially for non-Western cultures. Participants described that this was most notable in the Hispanic/Latino youth that they had worked with, where the strength and value of the family bond was a source of support and motivational factor for youth to return home from the program. There is scarce literature on the protective role that cultural factors play for minority youth in juvenile justice environments. Future research should consider this when examining what best serves youth in programs and how programs can build from strengths of diverse cultures in supporting youth to have an ideal transition from the program.

Gaps in literature on interventions and effectiveness of practices in residential care make it challenging to relate why some parts of the quantitative analysis were significant and others were not. In this analysis, the main effect of group sessions and
engagement was significant, but their interaction was not. Individual sessions were only significant when testing for their interaction effect. Family sessions were not significant in any model, but when testing for the interaction effect for time spent and engagement level in group sessions, this was also the only model where Hispanic/Latino youth had a significantly decreased hazard of an unplanned transition. Even though the findings on the different types of sessions were not consistent in the quantitative analysis, there are still interesting findings that can be drawn from this analysis. For example, the qualitative interviews indicated that youth from non-Western cultures, most notably Hispanic/Latino youth, often have cultural values specific to family that serve as a protective factor in this setting. This may be why among all the models Hispanic/Latino youth were found to be significant in this model. This has implications for practitioners and leaders of programs, in that attention should be paid to how youth from diverse cultural backgrounds, especially from non-Western cultures, may benefit from more family involvement in residential settings. Families should be encouraged to participate in family sessions, and programs should also find ways to support family involvement (i.e. phone sessions) for families that may have barriers to attending sessions in person.

In the literature, family involvement has been recommended as a critical element of treatment, especially for juvenile justice youth (Walker, Bishop, Pullman, & Bauer, 2015). Participants in this study also stressed the importance of family involvement, citing it as a critical motivation for youth to return home and back to their community. In the quantitative findings, more home visits had a significant decrease on the likelihood of an unplanned transition. Home visits may provide youth with an opportunity to feel

...
connected to their community and their home setting. As participants in the qualitative interviews mentioned, much of youths’ autonomy has been stripped away by the time a youth reaches the residential program. Home visits may contribute to a sense of independence and autonomy that has been otherwise diminished throughout a youths’ involvement in the juvenile justice system.

In this program, youth typically go on home visits to their family, but it is possible that they do not go on a home visit to their family but to another home-based setting. For example, youth might go on a home visit to their next living situation, which could be another program or a non-familial living arrangement. It is also possible that a youth can go visit their family, but their family is unable to participate in family therapy for various reasons. As the qualitative findings of this study suggested, the role of family in a residential setting can be complex given the family culture, historical experiences, and trauma history. Although this study supports literature that family involvement is an important part of treatment, it is crucial for studies to understand how diverse families function within and derive benefit from a residential program. This would also contribute to Miller, Anderson-Nathe and Meinhold’s (2014) position that there are many intersections of race and ethnicity within juvenile justice.

Time spent in group sessions and engagement level in group sessions were only significant when included in models separately, the main effects and interaction were not significant when tested together. There may be several reasons for this. In this program, youth participate in several groups daily, much more frequently than individual or family sessions. Therefore, the amount of time spent in groups may inherently be higher for all
youth compared with other types of groups. As such, because youth participate in many
groups per week, staff may be more apt to record youth as “engaged” unless a youth is
displaying an extreme difference in his behavior. In this way, groups may be an
opportunity for staff to notice extreme behavioral concerns in an effort to intervene or
identify alternative treatment methods prior to having an unplanned transition. However,
this study did not examine the content of group sessions, so there is no way to determine
whether certain types of groups had higher or lower engagement levels. Future studies
should further investigate the content of group work in residential settings and how youth
benefit from different types of groups.

This agency does use a variety of evidence-based curriculum for groups, such as
DBT, which has been used effectively with juvenile justice youth (McCann et. al., 2007).
Richardson Surmitis, & Hyldahl (2012) also point out that group work is often a source
of peer support, provides social learning, and sense of universality for the youth. Even
though some youth might struggle in the group living environment, perhaps for other
youth the socialized, peer-supported nature of group sessions does increase the likelihood
of engaging in treatment and having a planned transition. This would be an area of
research where youth voice and perspectives would be appreciated because youth could
give insight into their experiences with group work. Perspectives among diverse youth
should be explored to add further insight into how racial, ethnic, and cultural differences
impact the experiences of group work.

Time spent and engagement levels in individual sessions were only significant
when testing main and interaction effects. This finding perhaps speaks to the relational
component of engagement theory regarding therapeutic alliance. As youth spend more
time and engage more in individual sessions, this significantly impacts the type of
transition youth have from the program. However, as Elvins and Green (2008) point out,
youth may have a different perspective on the quality of the relationship than adults. For
some youth, an individual session may be an opportunity to vent frustrations of the
residential environment, which could be interpreted as being highly engaged by the adult
professional. As is the case with group work, future research should further investigate
how the content of individual sessions plays a role in youths’ overall engagement in a
program and the type of transition they have from the program.

Individual sessions also relate to the attitudinal component of engagement theory.
The attitudinal component stems from Prochaska and Diclemente’s (1992)
transtheoretical stages of change model, which are indicative of a youth’s readiness to
change (Smith et. al, 2008). Huang, Duffee, Steinke, and Larkin’s (2011) described how
the stages of change can unfold in a residential setting, with problems emerging in the
milieu context (precontemplation, contemplation, and preparation stages), and then
addressed through individual clinical interventions (action and maintenance stages). The
engagement framework as described by Huang, Duffee, Stenike, and Larkin (2011)
assumes that youth have reached an action and/or maintenance stage and are ready to
address problems in an individual context. This also relates to the qualitative findings of
this study, where participants discussed “the switch”. Since this study did not include any
information about the content of sessions, it is difficult to know how time in an individual
session was used and whether this contributes to “the switch”. Similar studies may desire
to further consider how Prochaska and Diclemente’s (1992) stages of change unfold in the context of a mandated residential setting and how exactly the moment of this “switch” occurs within this context. This may also be impacted by developmental stages, trauma history, race, ethnicity, and culture.

As the program’s TOC suggests, all of the participants talked about how CPS plays an integral role in all stages of the youth’s time in the program and beyond if progress is thought of on a continuum. CPS, in this setting, overlaps with many aspects of the theories of engagement. In CPS, adults build relationships with youth through empathy, validation, and a conversational problem-solving process, which in turn contributes to pro-social skill development (Greene, 2014; Greene, 2016b; Greene & Ablon, 2006). Once youth begin to participate in CPS, they inherently start building relationships with adults. This aligns with the relational component of engagement theory, in that a key part of treatment is a therapeutic alliance, sensitive to youth development (Becker et. al., 2014; Elvins & Green, 2008). Furthermore, CPS was created specifically for working with youth with “challenging” or “extreme” behaviors, so CPS may attend to developmental needs that must be considered for the therapeutic alliance in this setting (Greene, 1998; Greene & Ablon, 2006).

The qualitative themes, “Agency and Choice,” and, “Internalization,” relate to how youth evolve through the CPS process, which overlaps with engagement theory. In the theme, “Agency and Choice,” Participants stated how engaging in CPS gives youth, in particular this specific population of youth, a sense of power and control over their situation. This aligns with the behavioral component. The behavioral component
describes that participation and compliance in treatment is complicated in a mandated setting (Cunningham et. al., 2009). CPS may support a youth within this setting to gain a sense of ownership or agency in his treatment experience.

Certainly, there are times when CPS falls short as a model. In this study, participants described how trauma experiences, cultural considerations, or family background may cause some youth to struggle with having a problem-solving conversation, which is a key part of the CPS process (Greene, 2014; Greene, 2016b). The problem-solving conversation may be an improper expectation for some youth. Participants discussed that given a youth’s background and history, a conversation may not be a realistic expectation. Rather, making eye contact or being in the same room as a person might be significant progress. Practitioners should remain aware that youth may show progress in CPS differently depending on their personal histories.

Youth may also struggle to adjust to CPS because it is contradictory to the reward-and-punishment method that is so deeply entrenched in the juvenile justice system. Lott (2018) had similar findings in a qualitative study at this same residential program, where participants highlighted the philosophical tensions between CPS and the larger juvenile justice system. CPS has not yet been thoroughly studied in juvenile justice settings, but other authors have also indicated that CPS, although useful, is not a one-size-fits-all model (Grunzman, 2014). Given the complexities of juvenile justice populations, more research needs to be done on the application of CPS in these settings.

Limitations
There were several limitations to this study. This study took place at a small residential program, so although the observation period was over a nearly two-year time period there was a relatively small sample for the quantitative analysis. This study was conducted at one single residential program making the study findings ultimately limited to the context of this setting. This aligns with scholars’ recommendations that studies of residential programs be considered within the context of the study setting in order to better understand nuances of residential programs (Huang, Duffee, Steinke, & Larkin, 2011; Whittaker, Overstreet, Grasso, Soverein, Van der Helm, & Stams, 2013; Tripodi, & Boylan, 1988). However, it would have been beneficial to consider youth from other similar residential programs for comparison.

Administrative records were a pragmatic, feasible way to answer research questions for this study, but this secondary data source limits the options of study variables and how they are measured. Although this study did examine the core parts of the residential program, there are other aspects that would have been beneficial to include in this study had the information been available, such as recreational activities or school. The mixed methods design attempted to address gaps in the quantitative data with follow-up interviews with staff.

There may be differences in how employees record data in the administrative records, especially the engagement levels for youth. Employees are trained and instructed on how to do this as part of their job requirements, but the extent of this training is unknown. Engagement levels may be interpreted differently depending on the employee, the youth, and the circumstances of a given day. Therefore, it is possible that
some youth may have been more or less engaged in sessions and it was not fully captured in this dataset.

No youth workers were able to be interviewed for this study due to scheduling conflicts. Youth workers spend the most time with the youth in the program, as they are responsible for monitoring and overseeing youths’ daily routine and managing the milieu. It would have been extremely beneficial to get their perspectives on the quantitative findings, CPS, and anything else that contributes to the type of transition a youth has from the program. Some of the participants that were interviewed in this study were youth workers in the past. This study also did not include any youth input. It would have benefitted this study to get youth perspectives, especially youth that had different types of transitions or were at different points in the program.

Given the embedded researcher position at the agency, it is possible that this existing relationship may have prevented some things from being shared during the interviews. Participants may have also assumed that there was already an understanding of nuances of the program. As Corbin-Dwyer and Buckle (2009) have discussed in regards to insider-outsider relationships, the embedded researcher role may have prohibited a true understanding of subcultures within the agency. Therefore, interview questions may have missed some components of the program.

Finally, the time during a residential program may only be a small snapshot of a much larger picture of youths’ overall involvement in the juvenile justice system. This study was not able to capture any of youths’ experiences prior to being at this program or after leaving the program. The follow up interviews did end up addressing this to some
extent, albeit on a larger scale. While this study can contribute to knowledge and understanding about residential programs, it is critical to remain mindful of the many different ways that youth might become involved and processed in the justice system and how this may support or prohibit youth from benefitting from residential care.

**Implications for Social Work Practice and Future Research**

Overall, this study underscores the complex nature of residential settings and juvenile justice populations. The findings of this study are useful for residential programming, social workers working with these populations, and contribute to literature on juvenile justice and residential treatment. Residential programs should consider the implications of this study for making decisions around programming and managing the milieu. This study found that home visits, individual sessions, group sessions, and family sessions each had different effects on transition out of the program. Program administrators for residential programs, or other similar social service programs, should consider how these aspects of treatment may be impacted by engagement and the program’s TOC. Careful attention should be placed on how diverse youth might benefit from different parts of a program. Future research should further dissect the content of sessions and the interpretation of engagement in mandated settings in order to continue understanding best practices for adjudicated youth in residential programs.

Social workers working with youth from various backgrounds, particularly youth involved in the juvenile justice system, must remain mindful of the multiple intersections of race, culture, ethnicity, family, and trauma. There is more to be understood in this area, and future research should incorporate youth perspectives when studying this complex
issue. Social work can benefit from the findings of this study by incorporating diverse youth voice when implementing policy and practice with justice-involved youth.

This study contributes to literature on CPS. While this study found that there are clear benefits to using CPS with this particular population, there were still some gaps in how it meets the needs of diverse youth or how it can coincide with the larger juvenile justice system. There is a need for more research on CPS with diverse populations and juvenile justice settings in order to gain further understanding on the benefits of application of the model. Findings of this study can offer support to other similar programs that are using or considering using CPS with juvenile justice populations.

The methods and findings of this study contribute to research on residential programs, particularly with adjudicated youth. This study offers insights from both quantitative and qualitative data sources to what parts of a program contribute to transition out of the program. This study relates to the important focal shift towards understanding the context and nuances of residential programs that is needed in order to understand what parts of programs best serve youth.

Conclusion

This study sought to explore what parts of a residential program contribute to the youth’s time in treatment leading up to transition. The findings of this study contribute to literature on juvenile justice and residential programs by exploring what aspects of programs work best for different types of youth. The findings are indicative of the complexities of the juvenile justice system, the challenging nature of studying residential
programs, and the complicated intersections of race, ethnicity, culture, and juvenile justice.

Policymakers should consider the complex ways in which youth of color interact with the juvenile justice system and residential programs. Professionals responsible for decisions (e.g. judges, probation/parole officers, therapists, counselors) need to thoroughly consider whether youth of color would truly benefit from a residential placement. More practices need to be put in place at a policy level to ensure that when youth of color are sentenced to residential placements, family involvement is adequately supported and cultural considerations are incorporated into treatment. Furthermore, professionals must consider that the “white centric” style of communication embedded within the system creates bias in decision making and perceptions on youth behavior. Professionals across the juvenile justice system must have continuing education on the complex intersection of demographic trends in the system, internal and external biases, and systemic oppression and trauma.

Youth in residential settings should be encouraged and supported to safely return to their communities. Home visits are an opportunity to stay connected to a home environment, practice skills learned in a residential program, and gain a sense of autonomy. Programs across the juvenile justice system should promote home visits. If home visits are not a safe option or youth do not have a home-based setting to visit to, an alternative option should be provided. For instance, residential programs can offer field trips or connect with other resources in the community that allow youth to have a break from the group living environment and remain connected to their community.
JSO youth may benefit from aspects of programs in different ways than non-JSO youth. The nature of JSO charges may contribute to family dynamics, court requirements, and behavioral considerations. Policy and decision makers must consider this when making placement decisions for JSO youth and whether the structure of a program will meet the needs of JSOs. In this study, CPS may be a model that JSO youth are more readily able to engage with and make progress in. While more research should be done in this area, practitioners and professionals working with JSO youth can consider how approaches like CPS might benefit JSO youth in a residential setting when making placement decisions.

Practitioners using CPS with juvenile justice-involved youth need to remain mindful of the complex intersections that race, ethnicity, trauma, and culture have on how youth are able to engage with the CPS model. Practitioners must remain aware that youths’ ability to engage in CPS may not necessarily reflect progress in treatment. Additionally, progress may manifest differently in a mandated setting than non-mandated settings. Practitioners using CPS in mandated residential settings will need to examine their own biases and set context-appropriate goals during the problem-solving conversational process.

Finally, a residential program may only be a small part of a youth’s overall involvement in the juvenile justice system. The outcomes that youth have in a residential program must be considered within the context of their experiences in the larger system. Policymakers, practitioners, and professionals throughout the system must strive to
implement policies and practices that consider the diverse needs of youth and their historical experiences prior to having contact with the juvenile justice system.
References


Multnomah County (2018). *The juvenile relative rate index in Multnomah County.*


Oregon Youth Authority (2017). *Oregon Youth Authority at a glance*. Retrieved from Oregon Youth Authority website:
http://www.oregon.gov/oya/docs/OYAAtAGlance.pdf


Hello! My name is Emily Lott. In addition to being the Embedded Researcher here at Parrott Creek, I am also a doctoral candidate in the School of Social Work at Portland State University. As you may already be aware, I am conducting a qualitative study with the employees of the Parrott Creek residential program that will contribute to my dissertation research. The purpose of this study is to get employees’ perspectives on what contributes to a youth’s transition out of the program. I’m wondering if I can talk to you more about participating in this study since you are an employee of the residential program.

[If employee is willing, proceed with script. If employee declines, thank them for their time and end the script.]

Great! If you participate in this study, you will participate in a focus group that will last around one hour. You would be participating in the focus group with other employees of the residential program. The focus group will start by going over some results of an analysis I conducted with residential program records to get your input and then cover some additional questions to gather more contextual information that the analysis did not include. Again, the purpose is to get your perspective about what contributes to a youth’s transition out of this program.

The focus group will take place here at Parrott Creek in a private room. There is no direct compensation for your participation. However, your participation would benefit the Parrott Creek residential program to improve its practices with youth and contribute to other research on residential programs and juvenile justice populations. If the work environment has been stressful or anxiety-producing for you, then participating in the focus group could potentially cause some distress.

Participating in this study is completely voluntary. If you agree to participate and change your mind at a later time, you can withdraw at any time and will not be penalized and it will not impact your employment at Parrott Creek. If the focus group takes place during your regularly scheduled shift hours, you will not lose pay.

If you would like to participate, we can go ahead and look at times to schedule a focus group. If you would like to participate but do not want to participate in a focus group, an individual interview may be schedule instead. If you need more time to decide, you can may also call or email me with your decision. Do you have additional questions for me at this time?

[If employee agrees to participate and/or would like to get back to me, proceed with script. If employee declines to participate, then thank them for their time and consideration and end the script.]

If you have any other questions, I can be reached at elott@pcreek.org or 405-416-3462. Thank you so much for your time today!
Hello! My name is Emily Lott. In addition to being an Embedded Researcher here at Parrott Creek, I am also a doctoral candidate in the School of Social Work at Portland State University. You are being invited to participate in a study about Parrott Creek residential program that will contribute to my dissertation research. The purpose of this study is to get employees’ perspectives on what contributes to a youth’s transition out of the program. You are receiving this email because you are an employee of the residential program at Parrott Creek.

Your participation in this study would involve a focus group that will last around one hour. The focus group will start by going over some results of an analysis I conducted with residential program records to get your input and then cover some additional questions to gather more contextual information that the analysis did not include. Again, the purpose is to get your perspective about what contributes to a youth’s transition out of this program.

The focus group will take place here at Parrott Creek in a private room. There is no direct compensation for your participation. However, your participation would benefit the Parrott Creek residential program to improve its practices and contribute to other research on residential programs and juvenile justice populations. If the work environment has been stressful or difficult for you, then participating in the focus group could potentially cause some distress. Therefore, if you would like to participate but do not wish to do the focus group, an individual interview may be scheduled instead.

Participating in this study is completely voluntary. If you agree to participate and change your mind at a later time, you can withdraw at any time and will not be penalized. Participation in this study will not impact your employment at Parrott Creek. If the focus group takes place during your regularly scheduled shift hours, you will not lose pay.

Please respond and let me know of whether or not you are willing to participate. If you have any additional questions, please feel free to contact me at this email address, elott@pcreek.org, or at 405-416-3462.

Thank you and I look forward to hearing from you soon!

Emily Lott, MSW, PhD Candidate
Hello! I want to first thank you for taking the time to participate in this focus group. The purpose of this focus group is to gather contextual information from you about what contributes to a youth having a planned transition from the residential program. Having said that, there are two major topics that the focus group will cover today. The first topic is about results from a quantitative analysis I conducted with data from the residential program. The second topic is about the role that Collaborative and Proactive Solutions (CPS) plays in a youth’s time in the residential program and his transition out of the program.

I would like to encourage you to speak openly about your thoughts, opinions, concerns, or questions. Every effort will be made on my part to maintain your confidentiality, but it cannot be guaranteed since this is a focus group interview. I would like to ask that each of us here today respect confidentiality by not sharing anything that is discussed. Overall, the best way to protect your privacy is to not share anything that you wouldn’t want others to repeat.

Before we begin, let’s outline some basic rules for the discussion today. My job will be to make sure that the content gets covered and make sure that everyone here today gets an adequate opportunity to share. Let’s make sure that we take turns speaking in order for this to happen. Additionally, if someone shares something that another person disagrees with, that is totally okay. I’d just like to ask to please be polite and respectful to one another throughout the focus group.

I’m going to be recording our discussion today so that it can be transcribed later. This will help us to get an accurate record of what is said and also so that nobody has to take notes and we can all fully participate in the discussion.

Are there any questions? [After answering questions]

Let’s get started by getting some basic information from everyone that’s here today. Please take a few minutes to fill out a brief questionnaire before we get started. [Hand participants the questionnaire].

[After questionnaire is completed] Thank you. Before we begin with the focus group questions, I’m going to present and explain to you the findings from a quantitative analysis I did with data from the residential program. [Explain quantitative findings to the group]

Are there any questions? [After answering questions] Ok, let’s move on to the focus group interview questions. Please feel free to answer these questions in whatever way feels most comfortable to you. If you have any questions along the way, feel free to ask.
1. Think about the different kinds of youth you have worked with in this program. What parts of the findings make the most sense to you? Why?
   Prompts: What information stands out the most to you?
   Provide an example or story of a youth that has been in the residential program that would fit with what the findings suggest.

2. Again, thinking about different kinds of youth you have worked with in the past, what parts of the findings make the least sense to you? Why?
   Prompts: What information stands out the most to you?
   Provide an example or story of a youth that been in the residential program that would not fit with what the findings suggest.

3. What role do you think that CPS plays in the parts of the program that were included in this analysis? The findings?
   Prompts: Would the findings of this analysis look the same if CPS were able to be included? Why or why not?

4. What role do you think that the CPS processes (i.e. problem-solving conversations, plans A, B, and C, and refocus) plays in a youth’s engagement with the program?
   Prompts: Provide an example or story.
   How has using CPS helped with engagement?
   How has using CPS not helped with engagement?

5. What other parts of the residential program do you think make a difference in a youth’s transition from the program?
   Prompts: What other variables would you have included in this study?
   Are there parts of the program that aren’t easily captured that seem to make a difference? If so, please explain.
   Provide an example or story of a youth who was impacted by other parts of the residential program.

6. For the purposes of the analysis, a “successful” outcome was defined based on the type of transition a youth had (planned or unplanned). Why or why not would you agree with this definition?
   Prompts: How would you define “success” in this setting?
   Are there any other outcomes you would focus on rather than transition from the program? If so, what are they?
7. Thinking about everything we have discussed today, what are your overall perspectives on what it means for a youth to have “success” in residential care?

Prompts: What would you tell someone outside of your field?
Was there anything that we didn’t discuss in this group today that you think contributes to success?

Thank you again for participating in this focus group. Your thoughts and perspectives are extremely valuable. I appreciate you taking the time to do this today!
Appendix C. Participant Questionnaire

Please take a few minutes to fill out this brief questionnaire. Your answers will help us to be able to better understand the focus group today. Please answer in the way that you feel most comfortable. You are not required to answer anything that you do not want to. Thank you!

1. What is your age?

2. What is your race/ethnicity?

3. What is your gender?

4. How long have you been working in the residential program here?

5. What is your position here?

6. Have you ever worked in any other residential program? If yes, for how long?

7. Have you ever worked in any other juvenile justice settings? If yes, for how long?

8. Have you ever worked with youth prior to this residential program? If yes, for how long?
Appendix D. Consent Form

Portland State University
Consent to Participate in Research
Implementing Collaborative Problem Solving in a Residential Juvenile Justice Setting

March 23, 2018

Introduction

You are being asked to participate in a research study that is being done by Emily Lott, MSW, PhD Candidate at the School of Social Work at Portland State University in Portland, Oregon. The purpose of this study is to explore what factors contribute to a youth’s transition from the residential program. You are being asked to participate in this study because you work or have worked in the residential program at Parrott Creek Child & Family Services.

This form will explain the research study and will also explain the possible risks as well as the possible benefits to you. If you have any questions, please ask one of the study investigators.

What will happen if I decide to participate?

If you agree to participate, the following things will happen:

You will participate in a focus group interview with Emily Lott, MSW, PhD Candidate. The focus group will consist of you and other employees of the residential program at Parrott Creek Child & Family Services. The purpose of the focus group is to enhance a discussion of the subject matter and to incorporate as many experiences as possible into this study while remaining mindful of your work time. There may be challenges with successfully scheduling a focus group. In the event that it is not possible to conduct a focus group, you would participate in an individual or dyadic interview instead. The focus group is anticipated to last one hour. This focus group will take place in person in a private room at Parrott Creek. If you are working your shift during the focus group time, you will not lose pay. While all possible measures will be taken to schedule the focus group during a work day in which all participants are at work, it may be possible that you have to spend additional time at work in order to participate in this interview and in that case, you would not be compensated. The interviews will be audio recorded and you can be provided a copy of the transcript for verification upon request.
How long will I be in this study?
Participation in this study will take a total of 1 hour.

What are the risks or side effects of being in this study?
There are risks of stress, emotional distress, inconvenience, and possible loss of privacy and confidentiality associated with participating in a research study. If the work environment has been difficult for you, there is potential risk that you may feel frustrated or anxious.

What are the benefits to being in this study?
There are no direct benefits to you of being in this study. However, your participation will contribute to a growing body of research around juvenile justice residential programs. Your experience and input is highly valued and may be of support to others who are working in juvenile justice settings.

How will my information be kept confidential?
We will take measures to protect the security of all your personal information, but we cannot guarantee confidentiality of all study data. Your personal information will be seen by the interviewer and Co-Investigator, Emily Lott, MSW, PhD Candidate and her advisor and Principal Investigator, Junghee Lee, PhD. This focus group is being conducted as part of a doctoral dissertation, so it is also possible that members of the doctoral committee may see your information. The members of the doctoral committee include Tom Keller, PhD, Keva Miller, PhD, and Mark Leymon, PhD. The content of the interviews will be used during analysis and some direct quotes may be used in the final paper. However, any and all personal identifying information will not be shared, including any information that could lead you to be identified. The audio recording of your interview will be deleted after transcription.

Although all efforts will be made by the researchers to maintain confidentiality, it cannot be completely guaranteed due to the structure of focus groups interviews. While all participants will be asked to remain respectful of privacy and confidentiality, there is the inherent risk that information will be shared outside of the interview. In light of this, you are encouraged to be aware of over-sharing during the interview and to not share anything that you wouldn’t want repeated. In the event that you participate in an individual interview, this risk to confidentiality would be minimized because there would not be another employee in the interview with you.

The Portland State University Institutional Review Board (IRB) oversees human subject research, and there may be times when we are required by law to share your
information. It is the investigator’s legal obligation to report child abuse, child neglect, elder abuse, harm to self or others or any life-threatening situation to the appropriate authorities, and; therefore, your confidentiality will not be maintained.

Will I be paid for taking part in this study?

No.

Can I stop being in the study once I begin?

Yes. Your participation in this study is completely voluntary. You have the right to choose not to participate or to withdraw your participation at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Whom can I call with questions or complaints about this study?

If you have any questions, concerns or complaints at any time about the research study, Emily Lott or Dr. Junghee Lee will be glad to answer them. Ms. Lott can be reached at 405-416-3462. Dr. Lee can be reached at 503-725-4712.

If you need to contact someone after business hours or on weekends, please call 405-416-3462 and ask for Emily Lott.

Whom can I call with questions about my rights as a research participant?

If you have questions regarding your rights as a research participant, you may call the PSU Office for Research Integrity at (503) 725-2227 or 1(877) 480-4400. The ORI is the office that supports the PSU Institutional Review Board (IRB). The IRB is a group of people from PSU and the community who provide independent oversight of safety and ethical issues related to research involving human participants. For more information, you may also access the IRB website at https://sites.google.com/a/pdx.edu/research/integrity.

CONSENT

You are making a decision whether to participate in this study. Your signature below indicates that you have read the information provided (or the information was read to you). By signing this consent form, you are not waiving any of your legal rights as a research participant.

You have had an opportunity to ask questions and all questions have been answered to your satisfaction. By signing this consent form, you agree to participate in this study. A copy of this consent form will be provided to you.
INVESTIGATOR SIGNATURE

This research study has been explained to the participant and all of his/her questions have been answered. The participant understands the information described in this consent form and freely consents to participate.

<table>
<thead>
<tr>
<th>Name of Investigator/ Research Team Member (type or print)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Signature of Investigator/ Research Team Member)</th>
<th>Date</th>
</tr>
</thead>
</table>
Appendix E. Grbich’s Five Stages of Analysis


1. The process is an iterative or recursive one, involving you becoming familiar with your completed database through moving backwards and forwards across it, reading, re-reading and comparing aspects until you are sure of what it contains.

2. Bearing in mind your research aim, the research questions which have provided the prime focus of your study, any relevant theoretical frameworks previously identified and the literature you have reviewed, go through your transcribed database and block/underline/colour key segments and write descriptive comments alongside the margins. In particular seek to let the data speak for itself, allowing you to identify informants’ statements about beliefs, attitudes, values, explicit ideas and ideologies as well as behaviour patterns, actions and events.

3. These identified segments are then matched with relevant like segments across the database and grouped.

4. Within these groupings, overarching labels are attached and sub-groupings identified.

5. These groupings are then conceptualized and linked more directly with literature and theory as you move to data display and writing up.