

Foster Care and Offending: Examining the Mediating Role of Informal Social Controls

**by
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Abstract

The relationship between foster care and offending has been well established, although the mechanisms through which this association occurs have been less explored. The current study used data on 405 young offenders from the Incarcerated Serious and Violent Young Offender Study to examine whether adult informal social controls mediated the relationship between foster care and continued offending in adulthood. Results from a structural equation model showed that informal social controls partially mediate the relationship between foster care and continued offending in adulthood. Findings provide support for cumulative disadvantage and state dependence principles of offending and highlight the need to encourage informal social controls amongst young offenders with a history of foster care.

Keywords: foster care; dual-system youth; young offenders; developmental life-course criminology; informal social controls; cumulative disadvantage

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Chapter 1.

Introduction

Children and youth who enter the child welfare system are a vulnerable population – many have experienced neglect, abuse, or other forms of trauma (Ministry of Children and Family Development [MCFD], 2022b; Pecora et al., 2005). Although the purpose of out-of-home care is to provide safety, stability, and positive social development, these youth often show adverse outcomes in regard to emotional, behavioral, and academic development (Ai et al., 2013; Kovarikova, 2017), which impact them throughout future developmental stages. Youth with involvement in the child welfare system are more likely than their peers without involvement to engage in delinquency – these youth are commonly referred to as crossover youth, whether or not the delinquency has been recognized by the youth justice system (Baglivio et al., 2016). Youth who have been involved in both the child welfare system and the youth justice system are referred to as dually-involved, or dual-system youth (Baglivio et al., 2016).

Although the justice system involvement of youth in care is notably higher than for youth without a history of placement in care (Baglivio et al., 2016; Bala et al., 2015; Corrado et al., 2011; Ryan et al., 2007; Yang et al., 2017, 2021), there are not accurate records that report dual-system involvement at a national level in Canada. This is in part due to varying reporting methods of child welfare rates across the provinces and territories, as well as a lack of communication between the child welfare and youth justice systems (Bala et al., 2015; Corrado et al., 2011; Cutuli et al., 2016). More information on the extent of dual-system involvement is available at the provincial level. A report from the British Columbia Representative of Children and Youth (Representative for Children and Youth [RCY], 2009) indicated that 41% of youth in care had been involved in the justice system by age 21, while just 6.6% of the general youth population demonstrated involvement.

In addition to higher rates of justice system involvement, children and youth in care (CYIC) show a lower level of desistance from offending as they move into adulthood than young offenders without a history of placement in care (Yang et al., 2017). However, the mechanism through which this occurs is not yet understood. For

example, it is unclear whether foster care placement directly decreases the likelihood of desistance or whether the reduced likelihood of desistance is a consequence of a variety of other risk factors that accumulate for CYIC. The accumulation of disadvantage may have an impact on positive social development, including the reduced likelihood of experiencing classic 'turning points' discussed in the literature on life-course criminology (Laub & Sampson, 1993; Sampson & Laub, 1997). In effect, the relationship between foster care and continued offending may be the result of CYIC facing a variety of disadvantaged circumstances in adulthood.

From a policy perspective, it is beneficial to identify factors which contribute to continued offending by CYIC, and by extension, factors which can aid in promoting desistance. Well-informed policies and programs that are directed towards dual-system youth can be tailored to address these factors to decrease continued offending amongst former-CYIC. Reducing continued offending is of interest to society as a whole in order to promote safety within communities, decrease harm to potential victims, and limit the need for resources to be directed towards the criminal justice system.

Empirical research on the adult outcomes of dual-system youth is lacking, especially in terms of the examination of outcomes other than offending. However, from a theoretical basis, there are several reasons to anticipate that adulthood will be more challenging for such youth. For instance, cumulative disadvantage indicates that CYIC are likely to enter adulthood with poorer informal social controls than non-CYIC (Laub & Sampson, 1993; Sampson & Laub, 1997). This may be a result of a decreased ability to acquire and maintain social capital in the form of meaningful ties to employment, education, family, communities, and intimate partners. One of the ways in which reduced social capital and social bonds can impact dual-system youth, as explained by the age-graded theory of informal social control (Sampson & Laub, 1990), is through the decreased likelihood of desistance during emerging adulthood. According to Sampson and Laub (1990), social capital serves as a crucial factor in the promotion of desistance by providing informal social control. There are multiple mechanisms through which informal social controls might act as turning points for young offenders – Sampson and Laub (2005) discuss the following aspects of turning points as being influential to desistance: (1) they separate an individual's past from their present, potentially severing connections with criminogenic peers and environments, (2) they provide supervision and

social support, (3) they change an individual's routine, and (4) they provide opportunities for individual growth.

Guided by prior research on cumulative disadvantage and the age-graded theory of informal social control, the current study aims to provide insight into the relationship between placement in care and continued offending behavior in adulthood. Specifically, I attempt to understand whether foster care placement directly relates to a heightened risk of continued offending in adulthood amongst dual-system youth, or whether this relationship is indirect due to the accumulation of negative social outcomes in adulthood. Using structural equation modeling (SEM), the current study addressed whether the effect of placement in care on adult offending is mediated through informal social controls. This overarching aim was addressed by answering the following questions:

1. Does child welfare involvement predict continued offending in adulthood?
2. Does the quality of informal social controls in emerging adulthood prospectively predict continued offending in adulthood?
3. Does child welfare involvement predict the quality of informal social controls in emerging adulthood?
4. Is the relationship between child welfare involvement and continued offending in adulthood mediated by informal social controls in emerging adulthood?

Mediation analysis considers whether an independent variable influences an outcome variable through a third mediating variable (Gunzler et al., 2013). While moderator variables explain the conditions under which an effect will occur, mediator variables indicate how or why an effect occurs (Baron & Kenny, 1986). In this instance, mediation would be observed if child welfare experience influences adult offending through informal social controls. SEM provides a framework for mediation analysis, where path diagrams model the relationships between variables. Full mediation is observed when an established relationship between two variables is entirely explained by a mediator variable – that is, the direct effect of the independent variable on the outcome variable becomes zero when the mediator is introduced into the model. Partial mediation occurs when a mediator explains only a portion of the relationship between an independent and outcome variable – even after the introduction of the mediator variable, the independent

variable continues to have a partial direct effect on the outcome (Gunzler et al., 2013; Little et al., 2007).

Chapter 2.

Literature Review

I will begin the literature review with a brief background of the child welfare system in Canada, followed by an overview of the relationships between child welfare involvement, informal social controls, and adult offending that have been established in previous research. I will draw upon the concept of cumulative disadvantage and the age graded theory of informal social control to frame these relationships and those which I anticipate will emerge from the analyses.

2.1. Child Welfare in Canada

In Canada, child welfare systems are established by provincial and territorial governments, rather than at the federal level (Public Health Agency of Canada, 2019). As data for the current study is derived from a sample of young offenders from the province of British Columbia (BC), child welfare will be discussed within this context. In BC, child welfare is guided by the Child, Family and Community Service Act (CFCSA; CFCSA, 1996) to ensure that children are protected from harm. When the Ministry of Children and Family Development (MCFD) determines that a child has experienced or is likely to experience a need for ministry protection (e.g., actual or perceived threat of physical or sexual abuse, emotional harm, neglect, exploitation, or exposure to domestic violence), they may be temporarily placed in out-of-home care (CFCSA, 1996). This includes placement in family-based foster homes or residential care. Family-based foster homes are private residences that are approved by MCFD to provide substitute parenting for children (MCFD; 2013). This includes kinship care, where a child is cared for by a member of their extended family, a family friend with a previous connection to the child, or a member of the same cultural group (Saint-Girons et al., 2020). Residential care includes placement in group homes or treatment centres, and are used when family-based foster homes or kinship care are unable to meet the needs of a child (Doucet et al., 2018). In some instances, children may enter the child welfare system through a Voluntary Care Agreement, where a parent is unable to care for a child and temporarily passes this responsibility to MCFD (CFCSA, 1996).

When a child is removed from their home, the priority is to place them with extended family, or in a location where they can maintain contact with family and friends, remain with siblings, and continue attending the same school (CFCSA, 1996). However, these goals are not always attainable with temporary placements, especially given the shortage of foster families in Canada (Bissett, 2016). Even when placed with extended family or where contact with friends and family can continue, children who are removed from their family's home face a significant number of challenges that accompany placement in care, such as placement instability and adjustment to new living arrangements and family dynamics. Furthermore, CYIC are often left with trauma related to the reasons they were apprehended, as well as the trauma of separation from their families (Ai et al., 2013; Blakely et al., 2017). The child welfare population shows higher rates of post-traumatic stress disorder and post-traumatic stress symptoms than the general population, and up to 60% of these children and youth do not receive the required treatment (Ai et al., 2013).

As child welfare services in Canada are provincially regulated, it is difficult to get an accurate picture of how many children and youth are impacted by child welfare experience (Public Health Agency of Canada, 2019). Reporting methods and inclusion criteria vary across the provinces and territories, rendering inaccurate numbers of those affected by the child welfare system. As such, the numbers discussed below may not reflect the true extent of foster care placement in Canada, but provide a preliminary look into how many children experience placement in care.

According to a recent report, an estimated 59 000 children were in care in 2019 in Canada (Saint-Girons et al., 2020). At a rate of 8 per 1000 children, the number of Canadian children that experience foster care each year is higher than what is seen in the United States, who reported 6 per 1000 children in care in the same year (The Annie E. Casey Foundation, 2022). In British Columbia specifically, there were over 5200 youth in care in the year 2021, with around 1100 youth leaving care each year as they reach the age of majority (MCFD, 2022b). The number of youth who experience placement in care each year is concerning given the adverse outcomes that are reported amongst these youth following their exit from the foster care system, such as low educational and occupational attainment, housing insecurity, poor health outcomes, and criminal justice system involvement (Kovarikova, 2017; Rutman & Hubberstey, 2016; Yang et al., 2017).

2.1.1. CYIC and Offending

There is a well-established relationship between placement in out-of-home care and offending behavior (Corrado et al., 2011; Ryan et al., 2007; Yang et al., 2017; Yang et al., 2021). Youth who are involved in both the child welfare system and the youth justice system are commonly referred to as dual-system youth. Given that the number of youth in the child welfare system is already difficult to pin down, it is even more difficult to get an accurate picture of how many dual-system youth there are in Canada due to insufficient communication between the two systems. However, this number is of interest due to the vulnerable nature of this population.

Amongst young offender populations, CYIC are found to begin offending at earlier ages, offend more frequently in adolescence, and spend more time incarcerated (Yang et al., 2017). Furthermore, CYIC do not show the same pattern of desistance from offending after adolescence that is seen amongst non-CYIC. The age-crime curve refers to the salient finding that offending behavior decreases as youth leave adolescence and enter adulthood (Moffitt, 1993), however, CYIC tend to continue offending throughout this period (Yang et al., 2017). Yang et al. (2017) determined that CYIC are 2.5 times more likely than non-CYIC to show a pattern of chronic offending in the period following adolescence. Similarly, Ryan et al. (2007) found that youth leaving the foster care system were significantly more likely to continue offending, particularly when they were not enrolled in school.

To further explore the relationship between foster care and offending, Yang et al. (2021) investigated moderating effects of risk factors that often accompany placement in care. They found that CYIC were likely to offend more than non-CYIC regardless of their exposure to other variables such as parental maltreatment, gang activity, substance use, and negative self-identity. They also had more violent offenses than non-CYIC, indicating that CYIC tend to be more serious offenders, further highlighting the need to understand this association (Yang et al., 2021). These results suggest that foster care youth may represent a type of offender with a higher underlying propensity for involvement in crime, providing support for a population heterogeneity explanation of offending. CYIC were more likely to show patterns of chronic offending independent of their more severe risk-factor profiles. It appears that foster care involvement may have a direct association with crime – that is, there may be something unique about placement

in foster care itself that contributes to increased offending behavior. In addition, Patterson (1993) proposed an explanation of antisociality as a chimera – a hybrid produced by grafting additional experiences on to an original trait. From this perspective, foster care placement might represent an underlying propensity for antisocial behavior, and subsequent negative outcomes that CYIC experience may contribute to the way this underlying trait is expressed. The concept of a chimera suggests that the association between foster care and offending is a result of complex processes that have yet to be captured by researchers, and further investigation into factors that might contribute to this relationship is necessary.

2.2. Informal Social Controls, Desistance, and Implications for CYIC

2.2.1. The Age-Graded Theory of Informal Social Control

The development of offending behavior, the effects of life events on this development, and risk factors throughout the lifespan are the main concerns of developmental and life-course criminology (DLC) (Farrington, 2003). Within the DLC paradigm, two key concepts are trajectories and transitions. *Trajectories* are the pathways that individuals are on and refer to the direction in which their life appears to be going, while *transitions* are life events that have the potential to act as turning points and alter trajectories (Sampson & Laub, 1990). In particular, Sampson and Laub's (1993) age-graded theory of informal social control asserts that the informal social controls an individual has at different points throughout their life can serve as turning points. Informal social controls are socialization processes that work to regulate and control an individual's behavior in society (Farrington, 2003). Throughout the lifespan, sources of informal social control vary – while family and peers are more important during childhood, education, employment, and intimate partner relationships become more salient during young adulthood (Sampson & Laub, 1990). The age-graded theory of informal social control (Sampson & Laub, 1993) focuses on the strength and timing of an individual's bonds to their family, community, school, job, and intimate partners, and how the strengthening or weakening of these bonds can act as turning points that influence an individual's trajectory. When looking specifically at young offenders, the age-graded theory of informal social control suggests that the presence of informal social controls during the transition to adulthood can promote conformity and desistance

if an individual feels attached to and invested in their social bonds (Laub & Sampson, 1993).

2.2.2. Informal Social Controls and Desistance

Sampson and Laub (2005) discuss several features of turning points that allow them to alter trajectories: they separate an individual's past from their present, they provide an individual with supervision and opportunities for social support, they provide structure to, or change routine activities, and they provide the opportunities for identity transformation. Informal social controls share many of these features: as social bonds change, individuals may stop associating with previous peer groups and instead build a support system that fosters positive social ties, and they may adopt new attitudes towards offending behavior (Warr, 1998). Further, informal social controls often create commitments that reduce the amount of time an individual has to offend, and can also increase the amount of time spent with other people that might act as capable guardians – the mere presence of another individual might deter criminal activity (Warr, 1998).

There has been plenty of research that indicates that intimate partner relationships are a form of informal social control that have the ability to decrease an individual's involvement in crime (Sampson & Laub, 1990). As individuals begin relationships, they devote more time to their partners and activities associated with their relationship. In turn, individuals see a decline in time spent with friends, potentially disrupting their connections to deviant peer groups (Piquero et al., 2002; Simons & Barr, 2014). Changes in routine may also lead to a decrease in both time and desire to commit crime. However, it has been noted that simply entering into a marriage or other intimate partner relationship itself does not influence desistance – the quality of the relationship is important, as well as the partner's attitudes towards offending behavior, and an individual's feeling of attachment to their partner (Simons & Barr, 2014). It would be possible for a relationship or a marriage to enable criminality rather than inhibit it, particularly if the partner is involved in crime, or if a poor-quality relationship induces unmanageable stress in the individual that encourages antisocial behavior.

While much criminological theory and research has focused on marriage as a turning point (Sampson & Laub, 1990; 1993), this life event continues to occur later in life for many young people than in previous years (Statistics Canada, 2022). As such,

young adults' relationships with their parents have been the focus of more empirical research on desistance in recent years (Harris-McKoy & Cui, 2013; Johnson et al., 2011; Schroeder et al., 2010). In addition to being an important predictor of criminality in adolescence, parental relationships continue to impact offending behavior in adulthood. Strong relationships with parents in emerging adulthood are informative of desistance from offending, particularly as a result of increased financial and emotional support (Johnson et al., 2011; Schroeder et al., 2010).

It has also been well-documented that education and employment can influence desistance from offending (Abeling-Judge, 2019; Rutman & Hubberstey, 2016; Sampson & Laub, 1993; Uggen, 2000). Amongst young offenders, Abeling-Judge (2019) reported that individuals who re-enrol in high school after dropping out show a decrease in criminal behavior, potentially because pursuing education limits unstructured free time and may foster identity changes that decrease the likelihood of offending. Reinvestment in education may also facilitate the creation of social capital through connections with peers, teachers, and other mentors (Rutman & Hubberstey, 2016). Additional findings from Abeling-Judge (2019) show that GED obtainment and high school graduation decreased property crimes, but not violent crimes. Abeling-Judge (2019) suggests that this occurs as a result of degree completion increasing opportunities for legitimate employment that afford individuals the opportunity to purchase goods legally.

Sampson and Laub (1993) found that employment stability reduced arrests among adult men, and Farrington et al. (1986) reported higher offending rates when youth were unemployed than while employed. In a European sample, gaining employment was found to be associated with a 40% decrease in recidivism (Savolainen, 2009). In addition to providing internal social control, such as investment and commitment to a job (Sampson & Laub, 1993), employment may also provide external social controls that restrict offending. Individuals who regularly work are busy while working, limiting the time they have to engage in criminality, and may be required to regulate their engagement in high-risk behavior to be effective at their job (Savolainen, 2009). However, the quality of employment is emphasized as being important to its impact on desistance – low-quality employment that an individual is not committed to may do little to inhibit criminality (Sampson & Laub, 1993). Additionally, Uggen (2000) determined that the age at which employment is obtained significantly impacts recidivism – employment is more likely to promote desistance among offenders over the age of 26,

suggesting that the timing of informal social controls is crucial to their impact on reducing crime.

Living arrangements are also a source of informal social control for emerging adults that can promote either desistance or recidivism (Kirk, 2009; Laub & Sampson, 2006). Regarding desistance, emerging adulthood often provides an opportunity for young offenders to move away from the criminogenic environment in which they began offending, resulting in separation from criminal peers and influences (Laub & Sampson, 2006; Widdowson & Siennick, 2021). In Kirk's (2009) research following Hurricane Katrina, released offenders who were unable to return to their previous neighborhoods were less-likely to reoffend than those who did return to their previous neighborhoods. Residential mobility was shown to provide a separation of offenders from their criminogenic past which encouraged desistance from crime (Kirk, 2009). Further research has indicated that longer-distance moves were more likely to be associated with a decrease in arrests amongst former offenders (Widdowson & Siennick, 2021). Another mechanism through which living arrangements might facilitate desistance is through the presence of law-abiding relatives, partners, or roommates – individuals released from prison are often prohibited from living with someone with a criminal history, and frequently stay with family members (Steiner et al., 2015). This might serve as a turning point for offenders through both the separation from criminal peers, as well as the supervision and support of prosocial family members, partners, or friends (Sampson & Laub, 2005). On the other hand, living arrangements can decrease the likelihood of desistance through housing instability. Frequent moves or being unhoused following release from prison have been found to be associated with higher recidivism rates, potentially as they preclude individuals from creating networks of support (Steiner et al., 2015). Further, being unhoused may drive offending behavior as a means of survival (Sibthorp Prottts et al., 2023).

Emerging adulthood is the period of development that occurs after adolescence, between the ages of 18 and 25 (Arnett, 2006). Young people experience many life changes during this period, including increased independence and opportunities to form new social bonds. As opportunities to obtain social capital through education, employment, intimate partner relationships, and residential mobility increase as individuals leave adolescence, this is when the decrease in offending behavior that is observed in the age-crime curve (Moffitt, 1993) occurs for many young offenders.

2.2.3. Cumulative Disadvantage of CYIC

While Sampson and Laub (1997) use the presence of informal social controls to explain change in criminality throughout the life course, they invoke a state dependence argument to explain continuity in offending, which occurs through a process known as cumulative disadvantage. From a state dependence perspective, offending behavior occurs as a result of a reduced likelihood of experiencing positive turning points in the life course (Nagin & Paternoster, 2000). Cumulative disadvantage represents the accumulation of adverse experiences throughout the life course, which prevent positive turning points from occurring (Laub & Sampson, 1993; Moffitt, 1993). As individuals advance through life stages, adverse experiences may have a cascading effect that impact future experiences. Characteristics such as impulsivity, low self-control, and an inability to delay gratification may play a role in the accumulation of disadvantage by decreasing an individual's capacity to break the domino effect that occurs (Moffitt, 1993). Along with the inability to disrupt the cascading impact of cumulative disadvantage, Laub and Sampson (1993) theorize that this process mainly operates through the weakening of social bonds to sources of informal social control such as family, school, and peers.

Laub and Sampson (1993) focus mainly on antisocial behavior in childhood as the origin for cumulative disadvantage. They emphasize the impact that delinquency has on the social and institutional bonds that individuals have to society (Laub & Sampson, 1993). However, placement in out-of-home care may also serve as a form of disadvantage that continues to impact CYIC through their transition from adolescence into emerging adulthood. Children and youth in care are likely to encounter numerous challenges that are not typical of the adolescent experience. Along with the cause of apprehension – whether it be neglect, abuse, or other factors – CYIC are faced with high rates of post-traumatic stress disorder related to separation and weakened familial bonds through placement in out-of-home care (Blakely et al., 2017). Early childhood trauma influences impaired decision-making and impulsive behavior (Ai et al., 2013), which are characteristics that are thought to play a role in the accumulation of disadvantage (Moffitt, 1993). Additionally, many CYIC experience multiple placements, which creates instability and further disrupts their ability to form meaningful bonds to caregivers, teachers, and peers (Pecora et al., 2005). In effect, through several mechanisms, placement in care may act as a barrier to experiencing positive sources of informal social control that can facilitate desistance. Given that both youth delinquency

and placement in foster care might contribute to the accumulation of disadvantage, youth who are involved in both the youth justice and child welfare systems may be particularly deficient in their ability to form and maintain high quality social bonds. Therefore, compared to youth who are involved in either one of these systems alone, youth who are dually-involved may experience greater collateral consequences in adulthood.

2.2.4. CYIC and Informal Social Controls

Drawing on cumulative disadvantage principles, placement in care in childhood or adolescence may be a barrier to building strong social bonds that act as informal social controls in future developmental stages. Emerging adulthood, the stage of development between the ages of 18 and 25, is characterized by identity exploration and instability (Arnett, 2006). During this period, individuals are often required to be more independent, causing them to obtain their own social capital as they branch out from their families. Regarding identity exploration, emerging adults are often exploring possibilities related to employment, education, and intimate partner relationships, and therefore have the ability to create strong ties to society through these types of engagements.

However, the transition to emerging adulthood is often markedly different for CYIC (Ryan et al., 2016). While many young people struggle with the transition from adolescence to emerging adulthood, this period may be particularly difficult for youth that are also leaving foster care and the support of the child welfare system. Typically, youth have a more gradual transition into adulthood, as they often do so with continued emotional and material support from family (Schoeni & Ross, 2005), while foster care youth may experience a more abrupt transition as they suddenly stop receiving support and resources from the child welfare system. Placement in out-of-home care during childhood or adolescence may serve as an initial disadvantage, triggering the accumulation of disadvantage throughout future life stages. As a result, CYIC may experience poorer informal social controls during this emerging adulthood, which then decreases opportunities for desistance.

Out-of-home placement is associated with lower levels of education, higher rates of homelessness, and limited social networks (Collins, 2001), which are factors that may

inhibit a young person's ability to create social bonds that facilitate desistance from crime. Family relationships are especially complicated for youth with a history of placement in care, although experiences vary greatly – some youth may have no relationship with their parents or other biological family members, while others have more contact with family. In one study, 70% of CYIC reported having no contact with their biological fathers, while 63% reported no contact with their biological mother (Reilly, 2003). Although a lower percentage of youth (46%) reported no contact with former foster parents, there remains a large amount of CYIC that are left without parental support once they leave care (Reilly, 2003).

CYIC consistently display lower levels of educational achievement than non-CYIC (Ryan et al., 2007) – not only do less than a third of CYIC attend college (Fowler et al., 2011), only 44% of Canadian children in foster care graduate from high school, compared to 81% of youth with no foster care history (National Crime Prevention Centre, 2012). This precludes CYIC from continuing their education, leaving them unable to obtain the financial and emotional benefits associated with post-secondary enrollment, such as student counselling services and health benefits (Fowler et al., 2011). Additionally, the effects of low educational achievement extend to employment opportunities for foster care youth – former CYIC display higher unemployment rates during emerging adulthood than non-CYIC (Barnow et al., 2015). Placement in foster care appears to be a barrier to accessing education and employment opportunities (Barnow et al., 2015; Fowler et al., 2011; National Crime Prevention Centre, 2012; Ryan et al., 2007), which are both forms of informal social control that have the potential to promote desistance among young offenders (Sampson & Laub, 1993). Reilly (2003) found that, although 64% of youth who aged out of care were employed, 26% reported that their employment was unsteady. Further, around a quarter of youth reported that they had earned money through illegal activities (Reilly, 2003).

Regarding living arrangements, nearly one-quarter of youth who have aged out of care experience chronic housing instability, and around 15% of youth are unhoused in the years after leaving care (Fowler et al., 2011). In a three-year longitudinal study of foster care outcomes, 45% of participants had experienced homelessness (Rutman et al., 2007). Furthermore, housing instability or being unhoused often make it more difficult to obtain other forms of social capital such as education and employment. In other words, certain informal social controls like housing stability may be directly impacted by

foster care placement, and this may have a cascading impact on a variety of other sources of informal social control. Additionally, many offenders following release from incarceration return to live with family members, which can provide social support and the supervision of someone with an interest in an individual's desistance (Steiner et al., 2015). However, many former-CYIC do not have strong relationships with family members, which precludes them from experiencing this specific turning point (Keller et al., 2007).

CYIC consistently show a variety of poor outcomes in adulthood, such as an increased likelihood of continued offending (Yang et al., 2017). In addition to experiencing trauma, abuse, neglect, or other forms of maltreatment, CYIC also have a decreased ability to acquire and maintain social capital, and therefore often have weakened informal social controls as they leave adolescence. As informal social controls are shown to be fundamental in desistance from crime for young offenders, it is possible that the relationship between CYIC and continued offending occurs through disruptions in informal social control that result from placement in care. The current study will investigate this relationship using structural equation modeling to determine the mediating effect of informal social controls during emerging adulthood.

Chapter 3.

Method

3.1. Sample and Procedures

Data for this study were from the Incarcerated Serious and Violent Young Offender Study (ISVYOS), which is a prospective longitudinal study that has been ongoing in British Columbia, Canada since 1998. The ISVYOS is comprised of self-reported data from structured interviews, as well as official records of offending. Initial interviews were conducted with two cohorts of youth in custody – Cohort I was interviewed between 1998 and 2003, while Cohort II was interviewed between 2005 and 2011. As the interviews for Cohort I did not include questions about foster care, Cohort II was the focus of the current study. In British Columbia, youth in custody are under the legal guardianship of the Ministry of Child and Family Development (MCFD). MCFD provided consent for research assistants (RAs) from the ISVYOS to approach youths in custody throughout the province. Youth who were English-speaking, able to understand interview questions, and willing to provide truthful answers were recruited for the study. These youth were read an information sheet explaining the purpose of the study, and that all information would remain confidential unless they made a direct threat towards themselves or someone else. They were also told that their stay in the custody center would not be affected by whether they chose to participate in the study. RAs then conducted interviews with the youth in private rooms for confidentiality. RAs also had access to a youth's file to establish that their interview responses were consistent with official records.

As part of the structured interview, participants' likelihood to reoffend was assessed through the Community Risk Needs Assessment (CRNA), which was used in the current study to identify informal social controls. Among Cohort II ($n = 1123$), individuals who did not have a complete CRNA in emerging adulthood were excluded ($n = 614$). Those who did not have a complete CRNA between the ages of 18 and 23 spent less time incarcerated during this period, $t(979.20) = -5.12, p < .001$, so likely did not have time to complete the CRNA, or their record was sealed ($n = 51$). Additionally, those who did not have a response on whether they had been in foster care ($n = 94$), or did not

have a follow-up period of at least 1 year after adjusting for days incarcerated during the follow-up period ($n = 10$) were excluded from the sample. The remaining sample included 405 individuals. Descriptive information about the sample is reported in Table 1.

Table 1. Descriptive characteristics of CYIC and non-CYIC ($n = 405$)

	CYIC ($n = 236$) % (n)/ M (SD)	Non-CYIC ($n = 169$) % (n)/ M (SD)	χ^2/t , p , Φ/d
Demographic characteristics			
Ethnicity			
White	48.9% (115)	53.8% (91)	$\chi^2(2) = 28.55, p < .001, \Phi = .27$
Indigenous	43.8% (103)	23.7% (40)	
Non-Indigenous Minority	7.2% (17)	22.5% (38)	
Gender			
Female	26.6% (51)	10.1% (17)	$\chi^2(1) = 9.41, p = .002, \Phi = .15$
Male	78.4% (185)	89.9% (152)	
Youth ISC Score [†]	8.95 (2.85)	10.19 (3.05)	$t(353) = 3.93, p < .001, d = .42$
Study variables			
Age at earliest ACRNA	19.35 (1.31)	19.71 (1.44)	$t(403) = 2.61, p = .01, d = .26$
Age at follow-up*	27.69 (2.23)	27.73 (1.99)	$t(383.66) = 0.16, p = .878, d = .02$

Note. $\Phi =$ phi; $d =$ Cohen's d

[†]Due to missing data, only 212 CYIC and 143 Non-CYIC had available information on the Youth ISC scale.

*Levene's test of equal variance violated

3.2. Measures

3.2.1. Demographics and foster care

The sample of 405 individuals was 83.2% male ($n = 337$) and 16.8% female ($n = 68$). A majority of the individuals indicated that they identified as White (51%, $n = 206$), with 35.4% identifying as Indigenous ($n = 143$) and 13.6% as a non-Indigenous minority ($n = 55$). The non-Indigenous minority group included individuals who indicated they were Black, Asian, Hispanic, Middle Eastern, or East Indian, which were combined due to the low rate with which these were reported. During their interview, participants were asked if they had ever been placed in foster care. Over half of the youth in the sample reported prior placement in care (58%, $n = 236$). Descriptive information about the foster care sample is available in Table 2.

Table 2. Descriptive characteristics of CYIC (*n* = 236)

	<i>M (SD)</i>
Age at first placement	9.43 (4.31)
Number of placements	11.84 (26.13)
Total months in care	44.31 (51.15)
Age at last placement	14.02 (2.74)

3.2.2. Informal social control

Assessment of an offenders' likelihood of recidivism in British Columbia is in-part completed by practitioners using the Community Risk-Needs Assessment (CRNA) (also referred to as the Corrections Risk-Needs Assessment) (Bourgon et al., 2017; Ministry of Public Safety and Solicitor General, 2010). The CRNA was developed specifically for BC Corrections, and includes both static and dynamic factors to assess an offender's risk and needs (Ministry of Public Safety and Solicitor General, 2010). Applying the same method as McCuish et al. (2021), an informal social control (ISC) scale was derived from data from the CRNA. The CRNA had been completed in emerging adulthood between the ages of 18 and 23 ($M = 19.35$, $SD = 1.31$). In instances where individuals had completed the CRNA multiple times, data from their earliest assessment were used for the current study. Within the CRNA were five sources of informal social control that were included in the ISC scale: family relationships, intimate partner relationships, academic and vocational skills, employment patterns, and living arrangements. Each of these items were scored from 1 to 4 according to whether it was viewed to have serious interference with the individual's ability to desist (1), minor interference (2), no interference (3), or whether the presence of this factor would be a strength (4). The sum of these scores was used to indicate the amount of informal social controls an individual had, with higher scores indicating higher levels of informal social control ($M = 9.92$; $SD = 2.64$; Cronbach's $\alpha = .74$).

To demonstrate early differences in informal social control levels between CYIC and non-CYIC, a similar ISC scale was derived following the same method as McCuish et al. (2021). The Youth Community Risk-Needs Assessment (YCRNA) is regularly used by case managers in BC to evaluate the likelihood of recidivism and identify factors related to offending behavior amongst youth in custody (Hannah-Moffat & Maurutto,

2003). The YCRNA had been completed between the ages of 12 and 17 ($M = 15.00$, $SD = 1.33$), with data from their earliest assessment being used for the current study. Due to missing data, only 212 CYIC and 143 non-CYIC had information available for the youth ISC scale. The youth-ISC scale was created from five sources of informal social control within the YCRNA: family relationships, parental supervision, education and employment, living arrangements, and peer relations. The factors on this scale were scored the same way as the adult-ISC factors: (1) serious interference with an individual's ability to desist, (2) minor interference, (3) no interference, and (4) strengthened an individual's ability to desist. The sum of these scores indicates the quality of informal social controls present for a youth, with higher scores indicating higher informal social controls ($M = 9.45$; $SD = 2.99$; Cronbach's $\alpha = 0.75$).

3.2.3. Offending

Offending was measured using data from British Columbia Corrections Network (CORNET), which had been coded for the ISVYOS into offending in the different stages of development. This study focused on the number of convictions that occurred following a participant's first complete CRNA until the most recent time that criminal history was coded, encompassing offending in emerging and full adulthood. Although it is possible that offenders moved to another province and committed further offences there, only data from BC was available for the current study. The follow-up period did not include days where participants were not residing in BC. The average number of convictions during the follow-up period was 10.61 ($SD = 11.87$).

3.3. Analytic Strategy

The aim of this study is to better understand the relationship between youth involvement in foster care and adult offending. I aimed to accomplish this by examining if and to what extent informal social controls in emerging adulthood mediate this association. Previous research (Yang et al., 2021) indicated that foster care placement is associated with offending behavior regardless of exposure to a variety of other risk factors – the relationship is not moderated by different levels of parental maltreatment, negative self-identity, substance use, or gang activity. As the relationship between placement in care and offending appears to be independent of many other risk factors,

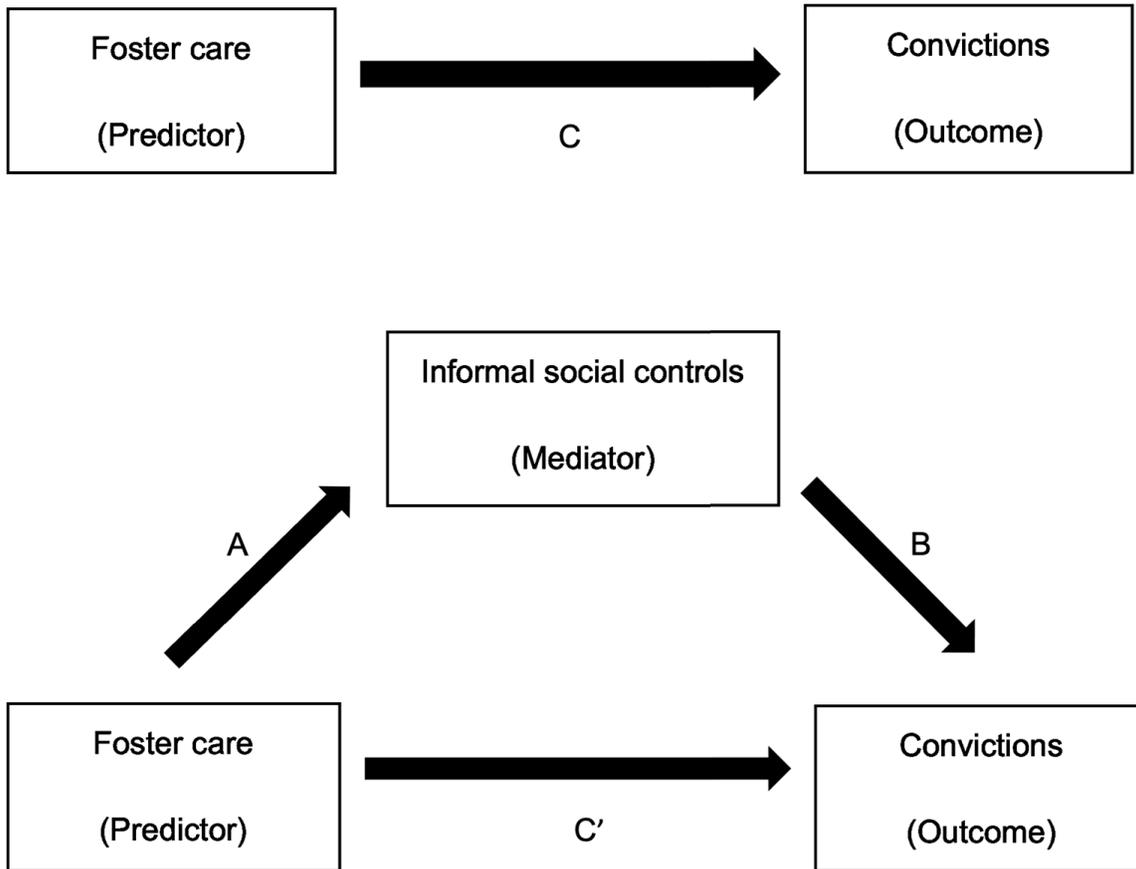
further insight into why and how this association occurs is needed. Mediation analysis allows for the investigation of whether this relationship is explained by a reduction in the strength of informal social controls. The longitudinal nature of the dataset allowed for the establishment of temporal order between all key variables and thus appropriately met the needs and assumptions of mediation analysis. Placement in care occurred before the age of 18, informal social controls were assessed via the CRNA between the ages of 18 and 23, and offending was measured following the completion of the CRNA.

The average length of the follow-up period between CRNA completion and coding of convictions was 8.21 years. Variation in length of the follow-up period was accounted for using an exposure variable (McCuish et al., 2021). For each participant, the number of days spent incarcerated during the follow-up period ($M = 530.33$, $SD = 668.11$) was subtracted from the number of days between their first complete CRNA ($M = 19.5$, $SD = 1.37$) and the time their criminal history was coded ($M = 27.7$, $SD = 2.13$). The number of days that each participant was free in the community ($M = 2344.66$, $SD = 889.52$) was divided by 4464, which was the highest number of free days for any individual in the sample. This resulted in an exposure value between 0.00 and 1.00 for each participant, which was then accounted for in subsequent analyses. Individuals who were in the community for less than one year of the follow-up period were excluded from analyses ($n = 5$).

Early differences in informal social controls between CYIC and non-CYIC were evaluated with a *t*-test. *T*-test and correlation analyses were used to determine the contribution of foster care involvement on informal social control score in emerging adulthood and convictions, and the relationship between informal social controls and convictions. Mediation analysis with Structural Equation Modeling (SEM) was performed using STATA software to determine whether informal social controls mediated the relationship between placement in care and offending. SEM provides a conceptual model with which hypothesized causal relationships can be examined (Gunzler et al., 2013). To test model fit, five model fit indices were used, consistent with prior literature (Hobbs et al., 2021; Melkman, 2017): chi-square, Tucker-Lewis index (TLI), comparative fit index (CFI), root mean square error of approximation (RMSEA), and root mean-square residual (SRMR). Good model fit is indicated by a non-significant chi-square, a TLI and CFI above 0.95, an RMSEA below 0.06, and an SRMR below 0.08.

The model consisted of three observed variables: foster care, ISC score, and convictions. ISC score is the mediator variable, defined as a third variable that is a pathway for the effect of the predictor variable (foster care) on the outcome variable (convictions) (Baron & Kenny, 1986). Within mediation, the total effect (path C in Figure 1) of foster care on convictions can be decomposed into the direct effect and indirect effect (Gunzler et al., 2013). The indirect effect represents the partial effect of foster care on convictions that goes through the mediating variable (path AB in Figure 1), while the direct effect represents the effect of foster care on convictions without mediation from another variable in the model (path C' in Figure 1). Differentiating these effects from one another provides insightful pathways to understand the mechanisms underlying the foster care-offending relationship. If the direct effect of foster care on convictions is zero when the ISC score variable is entered into the model, full mediation is observed – the mediating variable is entirely responsible for the relationship between foster care and convictions. If the direct effect of foster care on convictions is larger than the indirect effect after the ISC score variable is included in the model, then partial mediation has occurred.

Figure 1. Foster Care, ISC, and Convictions Mediation Analysis



Chapter 4.

Results

4.1. Bivariate Associations

Early differences in ISC levels between CYIC and non-CYIC were evaluated, with CYIC exhibiting significantly lower levels of ISC in adolescence, $t(353) = 3.93, p < .001$. Descriptive statistics for the variables in the mediation analysis are reported in Table 3, as well as bivariate comparisons between the variables in the analysis. CYIC within the sample showed lower levels of informal social control in emerging adulthood, $t(403) = 4.37, p < .001$, as well as a higher level of adult convictions, $t(399.64) = -2.93, p = .004$. Informal social control was also found to be negatively correlated with convictions – individuals with higher levels of informal social controls in emerging adulthood had fewer convictions in adulthood, $r(403) = -0.27, p < .001$.

Table 3. Bivariate comparisons of CYIC and non-CYIC

	CYIC ($n = 236$)	Non-CYIC ($n = 169$)	t, p, d
	$M (SD)$	$M (SD)$	
ISC Scores	9.44 (2.50)	10.59 (2.70)	$t(403) = 4.37, p < .001, d = 0.44$
Convictions	12 (12.84)	8.66 (10.08)	$t(399.64) = -2.93, p = .004, d = .29$

Note. d = Cohen's d

4.2. Structural Equation Model

Figure 2 displays a path diagram for the causal relationships between foster care, ISC, and convictions. Path coefficients, bootstrapped standard errors, and confidence intervals for the indirect, direct, and total effects in the model are presented in Table 3. Model fit was good: $\chi^2(1) = 0.59, p = .44$; TLI = 1.03; CFI = 1.00; RMSEA = 0.00; SRMR = 0.01.

Within the structural equation model, there was a significant direct effect of foster care on convictions – foster care was associated with 2.5 more convictions in adulthood than young offenders who never experienced placement in care. Foster care also had a

significant direct effect on ISC scores: CYIC had lower-rated informal social controls in emerging adulthood than non-CYIC.

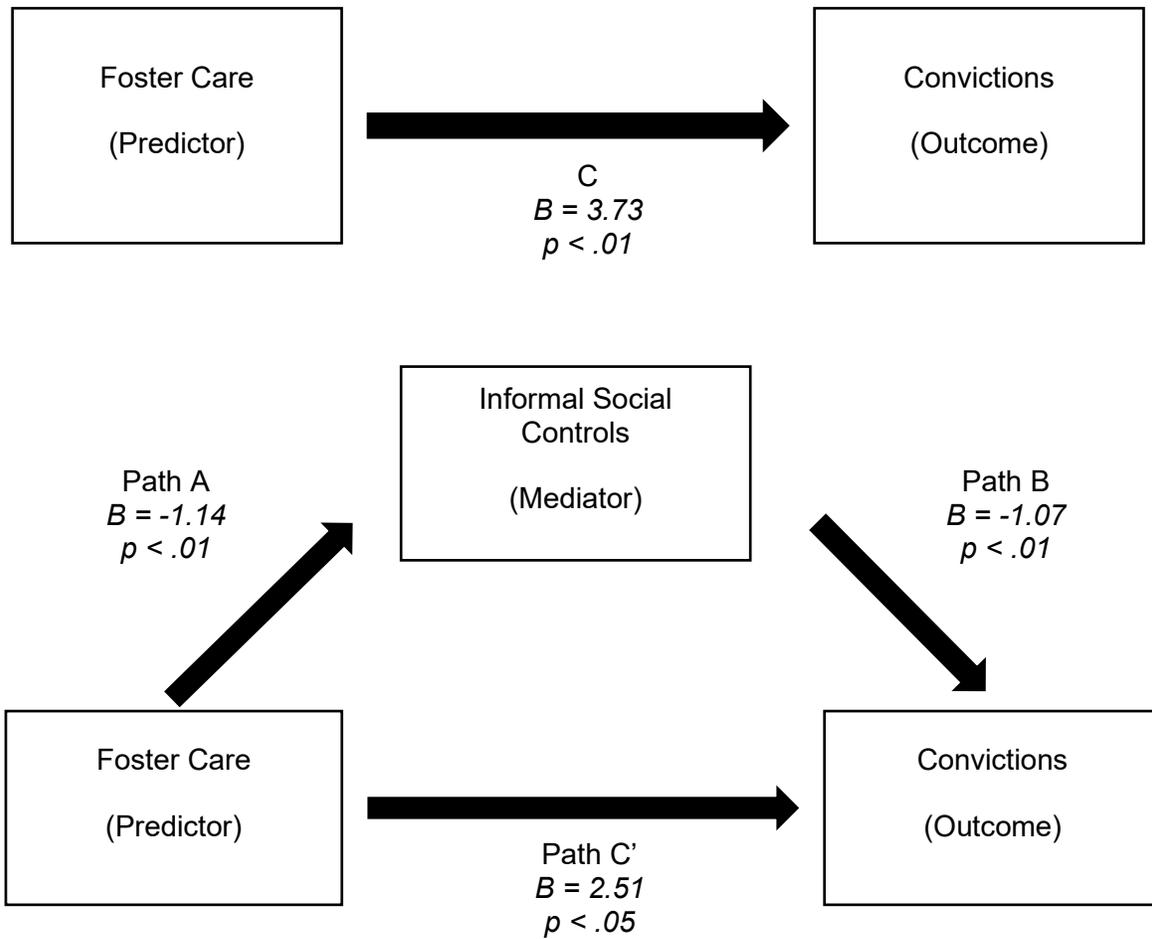
The direct effect of foster care on convictions is larger than indirect effect of foster care on convictions when ISC is included in the model – this indicates that the relationship between foster care and offending is partially mediated by informal social controls. The proportion of the total effect that is mediated is 0.32, meaning that informal social controls account for 32% of the relationship between foster care and offending. Said differently, the tendency for CYIC to have poorer informal social control outcomes does not fully account for why CYIC are associated with higher rates of convictions in adulthood compared to non-CYIC.

Table 4. Effects of the mediation model

	B (SE)	95% CI
Direct Effects		
CYIC → ISC	-1.14** (0.27)	-1.67 to -0.60
CYIC → Convictions	2.51* (1.10)	0.36 to 4.66
ISC → Convictions	-1.07** (0.20)	-1.47 to -0.67
Indirect Effects		
CYIC → ISC → Convictions	1.22** (0.36)	0.51 to 1.93
Total Effects		
CYIC → Convictions	3.73** (1.10)	1.58 to 5.88

Note. *p< .05, **p< .01

Figure 2. Structural Equation Model of Foster Care, Informal Social Controls, and Convictions



Chapter 5.

Discussion

In the current study, my goal was to explore the relationship between foster care placement and adult offending, and whether the effect of placement in care is direct or mediated by informal social controls in emerging adulthood. With a sample of incarcerated young offenders followed prospectively into adulthood, the following research questions were used to address this overarching aim: (1) Does child welfare involvement predict continued offending in adulthood? (2) Does the quality of informal social controls in emerging adulthood prospectively predict continued offending in adulthood? (3) Does child welfare involvement predict the quality of informal social controls in emerging adulthood? (4) Is the relationship between child welfare involvement and continued offending in adulthood mediated by informal social controls in emerging adulthood?

The relationship between placement in care and continued offending has been demonstrated in previous research (Corrado et al., 2011; Ryan et al., 2007; Yang et al., 2017, 2021), although the explanations for this relationship are yet to be fully understood. Yang et al. (2021) indicated that this association may be explained by a population heterogeneity perspective of crime, where offending is a result of individual characteristics that are associated with an increased risk for criminality. While foster care placement is not a trait itself, it is a social factor that may indicate an increased propensity for offending behavior. Though CYIC in their study displayed higher levels of a variety of risk factors for offending, their results revealed that CYIC were more likely to show high levels of offending independent of these risk factors – foster care itself may directly contribute to an increased risk for criminal behavior. In addition to the population heterogeneity explanation, Yang et al. (2021) indicate that another plausible explanation for the relationship between foster care and offending comes from a state dependence perspective, where increased offending may be a result of a decreased likelihood of experiencing positive turning points. Drawing on cumulative disadvantage principles (Sampson & Laub, 1997), there is reason to believe that foster care placement serves as a barrier to accessing sources of informal social control that might serve as turning points, such as education, employment, housing stability, intimate partner relationships,

and family relationships (Barnow et al., 2015; Collins, 2001; Fowler et al., 2011; Reilly, 2003; Rutman et al., 2007; Ryan et al., 2007). Indeed, CYIC in the sample of the current study displayed poorer informal social controls than non-CYIC in adolescence. Amongst an already-disadvantaged sample of young offenders in custody, there is evidence that cumulative disadvantage is differentially impacting youth with a history of placement in care. Given the important role that informal social controls play in desistance from offending, the current study investigated informal social controls in emerging adulthood as a potential mediator of the previously demonstrated relationship between placement in care and offending. Determining the role of informal social controls in this relationship would provide direction as to where resources might be most effective when aiming to increase desistance among CYIC, such as interventions that target an individual's ability to create and maintain meaningful social bonds.

The results of the current study were consistent with previous literature on the relationship between foster care and offending (Corrado et al., 2011; Ryan et al., 2007; Yang et al., 2017, 2021). Placement in foster care during childhood or adolescence is associated with a significantly higher number of convictions in adulthood. Furthermore, informal social controls were a significant predictor of convictions in adulthood – those with a higher rating of informal social controls in emerging adulthood had fewer convictions in adulthood. This is unsurprising given the pivotal role that informal social controls play in creating turning points that facilitate desistance for young offenders (Laub & Sampson, 1993). Informal social controls can act as turning points to encourage desistance in a number of ways: they have the potential to sever connections with criminogenic environments and peers, provide supervision, social support, and opportunities for identity changes and individual growth, and can change an individual's routine (Sampson & Laub, 2005). Investment in the creation and maintenance of social bonds is an important factor in desistance. Those who feel a strong sense of attachment to family, partner, community, school, or job are more likely to desist from offending in order to maintain the connections that they care about – it follows that individuals who lack some or all of these connections are more likely to continue offending. Additionally, the support provided by strong informal social controls may make desistance more attainable from a functional perspective. Informal social controls provide resources that reduce the necessity of offending (e.g., financial stability from employment allows

individuals to obtain goods legally, and housing stability reduces crimes associated with being unhoused such as loitering, trespassing, or theft).

In addition to lower informal social controls in adolescence, the results of the current study revealed that a history of placement in care was a significant predictor of lower informal social controls in emerging adulthood, consistent with the concept of cumulative disadvantage. Even amongst a group of marginalized youth (i.e., young offenders), CYIC fare poorer in regard to informal social controls during adolescence and emerging adulthood than non-CYIC. This may result from the accumulation of adverse experiences that many CYIC face throughout the life course – there are a variety of ways in which foster care may act as a barrier to experiencing high quality informal social controls. Many CYIC may have a decreased ability to form social bonds with foster parents, biological parents, teachers, and peers as a result of placement moves and distrust of adults associated with the child welfare system. Placement instability might also disrupt educational achievement for CYIC, which can have a cascading effect on employment opportunities. Addressing the disparity in social outcomes between young offenders with and without a history of foster care is crucial as the poor quality of informal social controls that former-CYIC experience in emerging adulthood is a significant contributor to the increased rates of offending by those with a history of placement. The results of the mediation analysis indicate that around one-third of adult offending by former-CYIC is a result of poor informal social controls.

Theoretically, the findings of the current study provide support for a state dependence explanation of crime, encapsulated within the age-graded theory of informal social control and cumulative disadvantage processes. A state dependence view of crime indicates that continuity in offending is a result of changes in an individual's social context and incentives to engage in offending, and a decreased likelihood of experiencing positive turning points (Bushway et al., 1999; Nagin & Paternoster, 2000). Results showed a partial mediation of the foster care-crime relationship by informal social controls. Young offenders with a history of placement in care were less likely than those without a history of placement in care to experience high-quality informal social controls that could act as positive turning points that would promote desistance. Through the process of cumulative disadvantage, placement in care not only severs existing social bonds, but also reduces an individual's future ability to obtain subsequent social bonds that might serve as informal social controls (Sampson & Laub, 1990).

When considering the percentage of continued offending by CYIC that was not accounted for in the current study, there are several other plausible explanations. There may be other factors at play that could lead to full mediation of the association between foster care and offending. Other sources of informal social control that were not included in the mediation model include peer relationships, religion, and spirituality (Pirutinsky, 2014). Additionally, there may be other collateral consequences of foster care placement that could contribute to an increased likelihood of continued offending, whether directly, or operating through lower levels of informal social controls. These might include physical and mental health challenges, substance use, or the potential stigma of being placed in foster care. These factors should be further investigated as both barriers to accessing high quality informal social controls, and factors that could directly contribute to offending behavior. In addition, prior convictions are important to consider when investigating a state dependence explanation of offending, as delinquency can change the social and institutional bonds that an individual has to society, decreasing their restraint over future criminal behavior. Within the data of the current study, I was unable to establish temporal order between adolescent offending and foster care placement. However, accounting for convictions in adolescence might result in further mediation of the relationship between foster care placement and offending, and could help further disentangle the complexities of this relationship.

The results of the current study do not discount Yang et al.'s (2021) findings, which may provide an explanation for the continued offending that was not accounted for in the current study. Yang et al. (2021) invoke a population heterogeneity perspective, where offending is attributed to individual characteristics that are associated with an increased propensity for crime (Nagin & Paternoster, 2000). Perhaps foster care placement is characterized by a greater proneness for offending behavior because of an unobserved underlying characteristic. As reported by Yang et al. (2017), CYIC begin offending at earlier ages than non-CYIC and offend more frequently in adolescence. Characteristics that are commonly seen amongst CYIC should be investigated as factors that could be associated with both foster care involvement and initial offending behavior in adolescence. Both fetal alcohol spectrum disorder (FASD) and attention deficit hyperactivity disorder (ADHD) are prevalent amongst foster care populations, and are characterized by difficulties anticipating consequences and impulse control deficits (Corrado et al., 2011; Fletcher & Wolfe, 2009). FASD, caused by prenatal exposure to

alcohol, is associated with both an increase in placement in care (Popova et al., 2014) and offending (Streissguth et al., 2004). The prevalence of FASD in Manitoba's child welfare system has been estimated to be as much as 13 times higher than among non-foster care children (Popova et al., 2014), while some estimates show that as much as 60% of individuals with FASD will become involved in the justice system (Brown et al., 2016). ADHD is the most commonly diagnosed disorder among foster children, at a rate that is much higher than the general population (Peñarrubia et al., 2021; Polanczyk et al., 2015). Rates of other behavioral disorders, such as oppositional defiant disorder and conduct disorder, are also more prevalent among foster care populations (Pecora et al., 2009). The higher prevalence of these disorders among foster care youth, and specifically the stable characteristics that accompany them, should be further investigated for insight into why CYIC have a higher involvement in the youth justice system.

A mixed-model perspective that incorporates both population heterogeneity and state dependence explanations of offending may provide further insight into the continued offending by CYIC that is not explained by informal social controls. Mixed models posit that both individual differences in propensity for offending and changes in social context throughout the life course contribute to continuity and change in offending behavior (Bushway et al., 1999). Individual differences, such as characteristics that commonly accompany disorders such as FASD and ADHD, might influence the initial increased likelihood of offending amongst CYIC (Bushway et al., 1999). Following this, considering the consistent finding that prior offending is correlated with future offending behavior (Nagin & Paternoster, 1991), the increased initial involvement of CYIC in delinquency during adolescence could be what is driving their likelihood to continue offending beyond emerging adulthood, independent of foster care involvement (Nagin & Paternoster, 2000). Invoking a state dependence argument, prior offending behavior is thought to be responsible for future offending as a result of altered life circumstances, inhibitions, and motivations for offending (Blokland & Nieuwbeerta, 2010). This is a process that could be at work amongst young offenders both with and without a history of placement in care, with the higher frequency of adolescent offending by CYIC driving their increased offending that is observed in adulthood.

Furthermore, the effect of negative childhood experiences that precede placement in care cannot be ignored. Most youth who are taken into care have

experienced neglect, physical or sexual abuse, exploitation, or exposure to substance use or domestic violence (Griffin et al., 2009; Mowbray et al., 2022). In BC, over 75% of CYIC in 2022 were in care as a result of neglect, physical or emotional harm, sexual abuse, or sexual exploitation (MCFD, 2022). Children may also be affected by the trauma of separation from their families and communities (Mowbray et al., 2022). Although Yang et al. (2021) noted that parental maltreatment was not found to be a moderator of the association between foster care and offending, further investigation into individual types of maltreatment and trauma may be warranted. Research by Thornberry et al. (2001) indicates that the timing of maltreatment experienced by youth differentially affects its impact on a variety of problem behaviors in adolescence. An increase in the likelihood of delinquency was not found in individuals who experienced maltreatment in early childhood only, while those who experienced persistent maltreatment and maltreatment in adolescence only were at a significantly higher risk for engaging in delinquency (Thornberry et al., 2001). As such, further inquiry into the timing of maltreatment as a potential moderator of the foster care-crime relationship is needed. Offending outcomes of former CYIC could be tied to a variety of negative experiences that may impact offending independent of placement in foster care.

It also must be noted that experiences in out-of-home care vary widely – age of first placement, total time spent in care, number of placements, and age of last placement in care are all factors which could differentially impact CYIC. Research by Baron and Gross (2022) suggests that for some youth, placement in foster care provides protection from abuse and maltreatment, which can have positive effects on outcomes such as educational attainment and adolescent offending. When compared to children who were involved in child welfare investigations but were not removed from their home, Baron and Gross (2022) found that foster care placement resulted in a decreased likelihood of adolescent involvement in the criminal justice system. However, most of the youth in this study experienced relatively stable placements while in foster care, and a vast majority were reunified with their biological families following a short stay in foster care (Baron & Gross, 2022). It is also important to mention that Baron and Gross (2022) only included youth in their study who were near the cut-off criteria for foster care placement. Their study did not include youth who were either very unlikely to be placed in care, or who displayed a clear and immediate need for apprehension. However, these results still underline the importance of minimizing the number of placements that youth

experience while in care – while some youth may find stability and safety in care, others change placements and schools frequently, and the benefits associated with being removed from their home may not outweigh the trauma and negative implications of separation from their family. Placement instability may limit the ability of CYIC to form strong bonds with caregivers and has been linked to a number of adverse outcomes. It has been found to increase the risk of behavioral issues, poor executive functioning, poor academic achievement, and incarceration in adulthood (Leathers et al., 2019; Rubin et al., 2007; Strijker et al., 2008). Further, Cusick et al. (2010) found that CYIC with multiple placements were at a higher risk for arrest in adulthood, although the impact of multiple placements for dual-system youth specifically, was not noted.

While in care, some youth have visits with their biological family, while others do not see their biological family again after apprehension. Whether contact with biological family during fostering is constructive or detrimental to a child's development is unclear, and seems to vary on a case-by-case basis (Fawley-King et al., 2017; Salas Martínez et al., 2016). As mentioned above, Baron and Gross (2022) noted that temporary placement in care might serve as a strength for youth whose biological families make improvements in areas such as substance use, housing, employment, and parenting skills, before reunification occurs. Finally, types of out-of-home care also vary – Baron and Gross (2022) noted that foster care placement might have a positive effect on offending outcomes when youth are placed in kinship care or foster homes, as opposed to group homes. Cusick et al. (2010) reported that youth placed in group homes had a higher adult arrest rate than those with placement in foster homes. There has also been research to suggest that kinship care may be less disruptive to a youth's cultural practices and family connections (Brown et al., 2009; Mihalec-Adkins et al., 2022) which might also impact offending outcomes in adulthood. As the varying experiences of CYIC were not considered in the current study, these factors could potentially provide further explanations of the association between foster care placement and continued offending.

The impact of apprehension on a youth's cultural connections is important to consider, particularly in a Canadian context. Across Canada, both the youth justice system and foster care systems show an overrepresentation of Indigenous youth, which was also demonstrated in the sample of the current study. Over half of all foster children in Canada are Indigenous, but account for only 8% of the general child population (Indigenous Services Canada, 2020), and British Columbia reports that 46% of youth

aging out of care are Indigenous (MCFD, 2022). The Canadian Centre for Justice Statistics reports similar rates for the overrepresentation of Indigenous youth in the youth justice system, making up 48% of the custody admissions in 2017 and 2018 (Malakieh, 2019). As a result of the history of colonization and genocide of Indigenous populations in Canada, Indigenous youth have a particularly complex set of risk factors for both foster care involvement and offending (Nutton & Fast, 2015; Sinha et al., 2011).

The Truth and Reconciliation Commission of Canada (2015) has called for governments to work to reduce the number of Indigenous children in care, and to ensure that those who are in care can be placed in culturally appropriate homes. Unfortunately, while Indigenous children are overrepresented in foster care, there are not enough Indigenous foster families to place them with (Representative for Children and Youth [RCY], 2021), often resulting in the continued loss of cultural connections and disrupted formation of cultural identity. Cultural identity has been linked to social well-being and mental health resilience for youth in foster care (Anderson & Linares, 2012; RCY, 2021). Identity formation, which is an important developmental process for youth, is thought to be particularly important for CYIC (Quinn, 2020; RCY, 2021). Future research should investigate the roles of disrupted identity formation on Indigenous dual-system youth, and the varying impacts these can have on development.

To address the finding that informal social controls play at least a partial role in the continued offending by those with a history of placement in care, efforts should be made to disrupt the process of cumulative disadvantage to influence desistance among these youth and help better set them up for success as they move toward adulthood. Interventions should be directed toward youth in custody with a history of foster care to encourage strong social supports during their transitions through the developmental stages. Changes to the foster care system itself might also address the weakened social bonds that CYIC experience – reducing placement instability and increasing access to mental health services, particularly trauma-informed care, might aid in disrupting the accumulation of disadvantage that CYIC face (Ai et al., 2013). Further, given inadequate coordination between the child welfare and youth justice systems, many dual-system youth fall between the cracks and do not have their needs met by either system (Kolivoski et al., 2017). Ensuring that youth who are involved in both systems are not only provided with programming and education, but are also accessing it, may be an effective step towards building informal social controls that last beyond their stay in the

system. Specifically, increasing the high school completion rate amongst youth opens possibilities for them to continue with their education and access more services offered by the government during emerging adulthood. Greater coordination between the youth justice and child welfare systems is necessary to properly address the poor outcomes commonly seen in dual-system youth. Beyond this, early interventions that prevent youth from becoming involved in both systems in the first place are valuable to consider, such as identifying families who are at risk for child welfare involvement and providing support that may mitigate this risk.

Additionally, Baron and Gross (2022) indicated that foster care might serve as a protective factor against offending outcomes. As such, perhaps the administration of foster care placement should be subject to greater scrutiny. Baron and Gross (2022) found that placement in care can facilitate positive outcomes when children are placed in kinship care or family-based foster homes, when these placements are relatively stable and short-lived, and when the outcome is reunification following positive change within the biological family. Further investigation into the conditions under which placement in care will yield positive results is warranted, so that the use of out-of-home care can be limited to circumstances where these conditions are met. Following this, social workers and case managers should receive further training on when apprehension might be helpful, and when it may be harmful to youth, which may contribute to decreasing the number of youth that become dually-involved.

5.1. Limitations and Future Directions

As incarceration was necessary for participation in this study, the sample is not representative of all dual-system youth. The results may not be generalizable to those who received non-custodial sentences, or other CYIC who were not incarcerated at the time of data collection. Data for the current study also did not include information about the different types of care that youth had experienced – group homes, foster homes, and kinship care were all referred to as foster care. There may be important differences in these experiences that may impact a youth's ability to acquire social capital and informal social controls – prior research has indicated that kinship care is less disruptive to connections with family and cultural ties (Brown et al., 2009; Mihalec-Adkins et al., 2022), while group home placement is associated with higher adult arrest rates than foster home placement (Cusick et al., 2010). Additional variables regarding foster care

experiences that were not investigated in the current study should also be incorporated into future research, such as age at first and last foster care placements, number of placements, and length of time spent in care. Further, the current study did not address varying experiences of abuse and neglect that CYIC may have been subjected to, both prior to and during foster care experiences. During data collection for the ISVYOS, questions regarding abuse were required to be removed from the interviews due to concerns from custody center officials that questions of a sensitive nature would destabilize participants. Additional inquiries into the impact of varying types and timing of maltreatment on continued offending are required.

Future research should further consider mixed models of population heterogeneity and state dependence explanations of crime when addressing the proportion of continued offending by CYIC that is not explained by informal social controls. Underlying characteristics that might be responsible for both placement in care and initial offending behavior should be investigated, as well as the association between prior and future offending. When considering prior convictions in the current study, there was no longer a direct effect of foster care on adult convictions when prior convictions were included in the model. However, prior convictions are strongly associated with placement in care, but the temporal order of them is unknown, making it difficult to account for them within a mediation model. That being said, the fact that attempting to control for this variable caused the direct effect to disappear suggests that prior behavior might be driving future offending, independent of the effects of foster care on informal social controls. Future research should continue to investigate the association between past and future offending amongst CYIC, as well as factors that may precede both placement in care and continued offending. Diagnoses that are prevalent amongst CYIC populations such as FASD and ADHD, and the stable characteristics associated with these disorders should be considered. Although disrupted informal social controls provide a partial explanation for the association between foster care and continued offending, more than half of the continued offending by those with a history of placement in care remains unexplained.

Finally, as insufficient informal social controls provide a partial explanation for decreased desistance amongst CYIC, research on how to bolster informal social controls for dual-system youth during the emerging adulthood period is needed. In 2022, following data collection for the current study, British Columbia further extended its

supports for aging-out foster care youth through the Agreements with Young Adults program (MCFD, 2022a). This program provides living expenses for up to four years to those who are enrolled in school or skills training, or attending rehabilitation, mental health, or life skills programs. Youth are required to reapply for the Agreements with Young Adults program every six months, which has been noted to be a barrier to accessing support (MCFD, 2022a). Research is needed into the accessibility of these supports for dual-system youth, as well as the impact that this mandate has on both informal social controls and offending.

Chapter 6.

Conclusion

Consistent with the concept of cumulative disadvantage, the findings indicated that youth with a history of foster care placement experience lower levels of informal social control in emerging adulthood, as well as more convictions in adulthood. Furthermore, the relationship between foster care and continued offending was found to be partially mediated by informal social controls. Individuals with a history of placement in care have a decreased ability to maintain social capital in the form of informal social controls, and therefore are less likely to experience positive turning points that are crucial to desistance from crime. Theoretically, this supports cumulative disadvantage and state dependence principles of offending, where the initial disadvantage associated with placement in foster care and incarceration erode the bonds an individual might already have to conventional society and precludes them from creating future bonds. Efforts should be made to disrupt the processes that sever an individual's social bonds, and to provide them with tools that promote the creation of informal social controls in both adolescence and subsequent developmental stages.

Although lower levels of informal social control partially explain the link between foster care and crime, there is still a large portion of continued offending by these individuals that remains unexplained. As mentioned above, individual differences in stable characteristics that often accompany placement in care should be investigated, as well as the association between prior and future offending. Further research is also required into the impact of varying foster care experiences on offending behavior. The different types of out-of-home care, age at first and last placements, number of placements, and length of time spent in care should be explored. Given the increased prevalence of continued offending amongst young offenders with a history of foster care placement, the explanations behind this relationship should continue to be investigated.

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