AN EXAMINATION OF FAMILY AND HEALTH RISKS AND SERVICES ON PERMANENCY OUTCOMES FOR MULTISYSTEM YOUTH

by

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ABSTRACT

JAIMELEE BEHRENDT-MIHALSKI. An Examination of Family and Health Risks and Services on Permanency Outcomes for Multisystem Youth. (Under the direction of DR. RYAN KILMER)

Multisystem youth, or youth involved with the juvenile court and child welfare systems, are a high-need population about which research is still-emerging. These youth tend to experience considerable adversity and risk across domains (e.g., health and mental health, family functioning) and settings (e.g., home, school, community), and research has begun to focus on the role of multidisciplinary services to reduce recidivism and promote health, safety, and stability for these youth. For instance, multisystem youth face a high level of family-related risk by nature of their involvement with the child welfare system, and research points to the importance of the family unit as a target of intervention for multisystem youth. However, little is known about how family-related services mitigate the impact of family risk on outcomes of salience for multisystem youth, such as permanency goal achievement (i.e., reunification, adoption, or guardianship). In addition, research shows that multisystem youth experience challenges that can be characterized as health-related risks – they are diagnosed with mental health problems at a high rate, may have issues maintaining healthcare coverage, and often experience placement instability. Notwithstanding this high level of health-related risks, it is unclear how health services are used to address such risks and mitigate their impact on permanency goal achievement for multisystem youth. Better understanding these risks and the impact of services on multisystem youths' system outcomes can have meaningful implications for practice and policy change across the child welfare, juvenile court, and Medicaid systems.

This project sought to explore multisystem youth's experience of risks and services across the domains of family and health, examine how the provision of services in these domains may affect the relation between risk and permanency goal achievement, and investigate differences in experiences across subpopulations of multisystem youth (i.e., boys and girls, youth who achieved their permanency goal and youth who did not). Using administrative data from a legal services case management system, records were examined and coded for a final sample of 74 multisystem youth, representing youth who were served via a nonprofit's specialized legal team over a nine-year period.

Overall, family services and health risks had the greatest impact on youth permanency. Youth in this sample experienced a low level of family risk (i.e., more than two-thirds of youth experienced neither of the two family risks tracked) yet generally received family services (i.e., more than two-thirds of youth received at least one of the three tracked family services). While a limited number of family-related risks and services were tracked, results suggest that these may have important implications for permanency and functioning. Specifically, a mediated linear regression revealed that family services predicted permanency but did not mediate the relation between family risks and permanency. Results point to the potential benefit of less formal services which engage families in case planning and assist them in navigating public systems.

The sample's youth experienced a moderate level of health risks (i.e., over half of the sample experienced three or more of the five health risks tracked) and health services (i.e., of the five services tracked, over three-fourths of the youth received at least one service, and over one-fourth received two or more). Contrary to expectations, a linear mediated regression revealed that health services were not predictive of permanency, but higher health risks were related to permanency achievement. This finding may suggest that, in light of these youths' diverse needs,

a broader array of services than what was tracked in this study may be needed to support multisystem youth. Further analysis via means testing (i.e., *t*-tests) explored differential experiences of risk and services across subpopulations of multisystem youth (i.e., by gender and permanency outcome) and revealed that boys and youth who aged out of the system tended to experience higher health risks.

This study builds on a limited research base to elucidate potential risks that multisystem youth may encounter as well as how service provision may mitigate these risks. Its findings underscore the importance of the domains of family and health for multisystem youth and reaffirms the need to focus on holistic, multidisciplinary supports and services. Implications for future research, policy, and practice are discussed.

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CHAPTER 1: INTRODUCTION

Family and health are critical domains for youth broadly, as well as for those with involvement in the child welfare and juvenile court systems. Family risk level is an imperative consideration in the context of child welfare involvement. By design, the child welfare system responds to accusations of abuse and neglect to determine if a child's safety is in jeopardy and if a family is in need of services. In general, family-level risks are associated with involvement in public systems. For instance, family-level risk factors such as domestic violence and youth or parent substance abuse place youth at greater risk of involvement with the child welfare and juvenile court systems (Herz et al., 2010; Ryan et al., 2013; Vidal et al., 2019). Health-related factors are also crucial for understanding youths' involvement with public systems and the trajectories they follow. Specifically, youth with child welfare and/or juvenile court system contact are more likely to experience health problems across mental, behavioral, developmental, and physical domains before, concurrent with, and after system involvement (see Kang-Yi & Adams, 2017; Klodnick & Samuels, 2020; Leslie et al., 2005; Leve et al., 2015; Ruch et al., 2019; Zemel & Kaye, 2009). Thus, risk reflecting multiple domains, particularly those related to family and health, have the potential to impact both public system involvement and system outcomes.

Multisystem youth (i.e., youth involved with the child welfare and juvenile court systems) tend to experience high rates of risk prior to and concurrent with system involvement, including exposure to domestic violence, a history of parental substance abuse, and greater prevalence of mental and behavioral health problems (Chuang & Wells, 2010; Herz et al., 2006; Vidal et al., 2019). However, the literature about these

youth is underdeveloped, a circumstance that is attributable, at least in part, to the fact that jurisdictions typically do not track the cross over of youth between systems; this gap in tracking contributes to the "hidden" nature of this population of youth and, subsequently, the reduced attention to their needs (Herz et al., 2019; Stone & Zibulsky, 2015). As a result, the unique needs of subpopulations of multisystem youth may be further obscured.

Risk and public system involvement may differ for youth depending on youth characteristics. Specifically, girls may experience higher risks, but these risks may not be as readily identified, which may contribute to reduced access to services (see Bywaters et al., 2016; Chen et al., 2011; Kerig, 2018; Smithgall et al., 2013). In addition, youth who achieve their permanency goal and youth who age out of the child welfare system (i.e., they do not achieve a permanent placement through reunification, adoption, or guardianship before reaching the statutorily-defined age when system contact terminates) may have differential experiences, including less stability and connection with family, worse health, and greater involvement in the adult criminal court system for youth who age out (see Crawford et al., 2018; Kang-Yi & Adams, 2017; Klodnick & Samuels, 2020; Schelbe, 2018). Thus, examination of subpopulations of multisystem youth is warranted to better understand their needs.

While risk is generally high for multisystem youth, increasing the likelihood of problems in adjustment, the nature and level of service provision may not meet their needs. Several interventions have been examined to determine how to best support families in the context of public systems, including family engagement services, parenting classes, and services focused on specific family needs (e.g., housing, substance

use; Burke et al., 2014; Piquero et al., 2009; Young et al., 2007). However, the research focusing on family services for multisystem youth is limited; the available findings suggest that the presence of supportive family services increases the likelihood that children remain in their home (Orsi et al., 2018).

Given their substantial risks, the need for health-related services is high for multisystem youth. However, they experience lower levels of access to mental and physical health services, and issues obtaining and maintaining Medicaid may further reduce access (Anderson et al., 2019; Hanlon et al., 2008; Kim et al., 2020; Raghavan et al., 2016; Yoon et al., 2021; Zemel & Kaye, 2009). In addition, research examining the provision of health services for those in public sector systems has focused on youth who are involved with juvenile court or child welfare, and there is a lack of research focused on multisystem youth (Raghavan et al., 2016; Hanlon et al., 2008). Given the purported importance of family and health risks and services for multisystem youth, and the lack of attention to these factors in the literature, this study aims to further explore these relations.

This study examines the role of risks and services in the domains of family and health on permanency achievement for multisystem youth who were served by a specialized legal team and were concurrently involved with the juvenile court and child welfare systems in a large, urban county in the Southeastern United States. In addition, this study assesses differences in risks and services for multisystem boys and girls and youth who age out compared to those who achieve their permanency goal. Results from this study have implications for the role of family and health in permanency outcomes for multisystem youth and practices to support multisystem youth.

1.1 The Child Welfare System

To promote positive outcomes for multisystem youth, an understanding of the goals, processes, and policies that guide the child welfare and juvenile court systems is necessary. As such, the following section discusses goals of, policy change within, and types of contact with the child welfare system, as well as implications of system involvement for the family and for family- and child-level health. In addition, this section discusses differences in risks, service provision, and outcomes across race and gender and for youth who age out of the system compared to those who achieve permanency.

The child welfare system represents a complex network of various actors, stages, and policy. The present day child welfare system is based on the early child savers movement, which aimed to protect children from serious abuse and neglect through removal from their home (Jimenez, 2006; Myers, 2008). Throughout its history, the child welfare system has held what can, at times, be competing goals (i.e., protect children, preserve families), and policies have shifted service provision from income-based services to social services (Testa & Kelly, 2020). Families with child welfare system contact have varied involvement, with some potentially having no knowledge of their system involvement (i.e., family screened out of system before contact) to families experiencing significant disruption, including having children removed from the home (North Carolina Department of Health and Human Services [NCDHHS], n.d.-b).

Family risk is relevant to child welfare involvement as suspicion of maltreatment is a precursor to system involvement. Moreover, family-level factors that indicate nonoptimal family circumstances, such as parental substance abuse and domestic violence in the home, are related to deeper child welfare involvement (Chen et al., 2011;

Geen, 2004; Leslie et al., 2005). In addition, health-related risks may be important to consider in relation to child welfare involvement. Specifically, youth who experience greater mental health and developmental concerns are more likely to be placed into the custody of the child welfare system (Arnow, 2004; Leslie et al., 2005). In some cases, youth with significant mental or physical health needs may be placed into the custody of the child welfare system to gain access to adequate and appropriate care through Medicaid coverage (NC GS 7B-1905(a); North Carolina Judicial Branch, n.d.-a).

Adequate treatment and placement are crucial for youth involved in the child welfare system. Specifically, programs that aim to promote family functioning (e.g., family engagement, parenting classes) or address specific family concerns (e.g., substance use treatment) may promote positive outcomes, such as youth remaining in their home of origin (see Bright et al., 2018; The California Evidence-Based Clearinghouse for Child Welfare, 2010; Fraser et al., 1997; Fuller & Zhang, 2017; Sullivan et al., 2012). In addition to family-level risks, demographics (e.g., race, gender) also have implications for child welfare trajectory and outcomes (e.g., overrepresentation in system, access to services). Thus, the history, goals, and risks for child welfare-involved youth are critical to consider to better understand youth outcomes, particularly as they relate to youths' cross over into other public systems.

1.1.1. Goals of the Child Welfare System

The child welfare system, frequently described as Child Protective Services, aims to protect children from abuse, neglect, and exploitation while attempting to preserve the family unit and, if that is not possible, provide the child(ren) an appropriate, alternative care environment (NCDHHS, n.d.-b). To accomplish this goal, child welfare staff

investigate suspected cases of abuse and neglect, provide services and service referrals to families, coordinate with other agencies, and, if necessary, petition the court for the child's removal from the home (NCDHHS, n.d.-b). As such, the child welfare system seeks to respond to and address family-level risk and may provide additional services to youth and/or their families.

Sarri and Finn (1992) point to three underlying cultural understandings that define the scope and reach of the child welfare system. The first is the cultural ascription of a dichotomous public and private life (Sarri & Finn, 1992). For instance, in the United States, there are boundaries and roles ascribed to family life, including privacy and autonomy over decision-making as well as clear expectations for public systems and their authority. Thus, there is the expectation by many that the child welfare system will intervene in family life under circumstances of abuse or neglect and, if necessary, assume responsibility for a child's well-being. The second cultural understanding related to child welfare is the primacy of the autonomous individual (Sarri & Finn, 1992). Specifically, the culture in the U.S. promotes independence over dependence and interdependence; the idea that individuals use self-sufficiency to "pull themselves up by their bootstraps" is valued over reliance on others or a collectivist mindset, which would be evidenced by a comprehensive public safety net (Greene, 2017). Finally, according to Sarri and Finn (1992), the third understanding that underlies the child welfare system is the recognition of the capacity of and potential for corrective intervention, i.e., that services are politically neutral and promote positive outcomes for children and families.

Beyond those overarching cultural expectations, those in the U.S. generally tend to value the potential of intervention and the ability of individuals to meet cultural

expectations assigned to roles (e.g., mother, father; Sarri & Finn, 1992). While the child welfare system emerged with the intent to support and protect children, some argue it does not meet its mission; rather, they view it as a manifestation of policies that have promoted the regulation of communities and ignored societal inequities in housing, income, and health (Featherstone et al., 2021; Roberts, 2014a, 2012). Thus, attention to the policies governing the child welfare system is warranted to understand the system's aims and potential impact for families.

1.1.2. Child Welfare Policy

Over the years, the overarching approach to child welfare in the U.S. has typically vacillated between providing economic supports and social services (Testa & Kelly, 2020). For instance, formal child welfare policy was established in the U.S. through the Social Security Act of 1935, which provided cash welfare payments for children in need of support due to paternal unemployment, incapacitation, death, or absence from the home (Hansan, 2018). This program of cash support, Aid to Dependent Children, was intended to ensure mothers could stay home to raise their children and did not need to enter the workforce to support their families. In 1950, the program grew to provide additional assistance for the support of a caregiver and, in 1961, further expanded to include coverage of two parents, leading to the 1962 change in program name to Aid to Families with Dependent Children (Hansan, 2018). Thus, the early stages of child welfare policy aimed to reduce familial risk and economic need through direct cash payments, which enabled families to buy the goods and services that best fit their needs.

After changes were made to the program in the early 1960s, demographic and cultural shifts also occurred, including, for example, an increase in children born to

unwed mothers, greater utilization of the income-support program, and a reduction of the number of children living in poverty, which contributed to perspective shifts among the general public and policymakers (Hansan, 2018; Testa & Kelly, 2020). As one case in point, Testa and Kelly (2020) point to a shift in public opinion that blamed individuals in poverty for their situation while simultaneously overlooking discriminatory practices and lack of opportunity. Further, Roberts (2014b) suggests that by emphasizing procreation outside of marriage as the cause of social ills, the government reduced support for families and children while diverting attention from the need for broader supportive policy to promote individual and family well-being.

To address what was considered a crisis in the child welfare system, amendments to the Social Security Act were passed in 1956 and 1962 to integrate social services into the income-support program (Testa & Kelly, 2020). By 1973, income support was fully separated from social services in the child welfare system (Testa & Kelly, 2020). The shift away from income-support to providing social services also coincided with an increase in the surveillance of families. That is, over time, policy shifted from supporting the autonomy of the family in determining how to use government benefits to meet their needs to one of government-mandated corrective intervention (Sarri & Finn 1992).

This shift in policy from cash assistance to the provision of social services had implications for the family as well as family- and child-level health. Previously, families were able to decide how to use cash assistance to better meet their needs, including securing housing, purchasing food, and seeking out health services, among other activities that promote family stability and maintain health (Testa & Kelly, 2020; Woodward, 2021). With the shift from cash support to social services, family autonomy

was reduced, and the child welfare system gained greater authority over a family's life. In addition, it bears mention that service provision through the child welfare system is narrow in focus and, therefore, its services may not meet all familial needs (e.g., the system and its representatives may provide parenting skills classes but overlook housing insecurity and income inequality; Featherstone et al., 2021; Roberts, 2014a).

The most recent large-scale reform to child welfare policy is the Family First Prevention Services Act of 2018 (i.e., Family First). Family First establishes changes across three primary domains: prevention services, limiting support for congregate care, and programs related to foster care, reunification, adoption, and aftercare (Kelly, 2018). Through Family First, Title IV-E of the Social Security Act enables families who are at risk of their child(ren) being placed into child welfare custody to access prevention services (i.e., mental health, substance abuse, in-home parenting skill) for up to 12-months. The law intends to transform the child welfare system to better serve children and families, reduce family risk, and promote family preservation through service provision (McKlindon, 2019). While some suggest that Family First has the potential to transform the provision of services to children and families (Lindell et al., 2020), others argue that the current model of child welfare is broken beyond repair and does not promote child, family, or community well-being (Featherstone et al., 2021). Further investigation of child welfare system involvement is needed, including an examination of programs and services that support families, prevent child maltreatment, and foster safety.

1.1.3. Types of Contact and Involvement within the Child Welfare System

There are several levels of contact within the child welfare system, ranging from a family being the focus of a report to youth being placed in the custody of the system (DePasquale & Simmons, 2019; NCDHHS, n.d.-b). Involvement with the child welfare system begins at the reporting stage. Child maltreatment is often categorized as abuse, neglect, or dependency. Dependency refers to a finding made by the child welfare system indicating that a child needs assistance or placement because a parent, guardian, or custodian cannot provide adequate supervision and care for that child, and an alternative care arrangement is not available (North Carolina Judicial Branch, n.d.-a). Families may be reported for possible cases of abuse (i.e., intentional physical, emotional, or sexual maltreatment) or neglect (i.e., lack of necessary care) involving youth under the age of 18 (DePasquale & Simmons, 2019; NCDHHS, n.d.-b; North Carolina Judicial Branch, n.d.-a). After a report is made, a screening process occurs to determine if the child(ren) included in the report meet the statutory definition of abused, neglected, or dependent, assuming the information contained in the report is factual. If allegations meet the standard for child maltreatment, the report progresses to the investigation stage (DePasquale & Simmons, 2019).

At the investigation stage, the county Department of Social Services works to determine if the child(ren)'s needs are being met and if there is an immediate risk to safety (DePasquale & Simmons, 2019). In addition, child welfare professionals assess the extent of any potential maltreatment, the potential risk of harm, whether removal from the home is necessary to protect the child(ren), if services are needed for the family or child(ren), and if a petition should be filed to begin child welfare court proceedings (DePasquale & Simmons, 2019). After investigation, child welfare professionals make a

substantiation determination. In practice, substantiation confirms the presence of abuse, neglect, or dependency, but this classification does not translate to service provision (DePasquale & Simmons, 2019). Instead, in addition to the substantiation determination at the conclusion of the investigation, child welfare workers in North Carolina provide another decision in which they outline: services needed; services provided, no longer needed; services recommended; or services not recommended (DePasquale & Simmons, 2019). Thus, understanding a family's risks and service needs is a critical component of the investigation stage.

In situations in which family risk is high but a child is not in imminent danger, families are referred to services concurrent with or after an investigation concludes, based on their identified needs. Families may be referred to services, such as family preservation or family engagement services. Family preservation services work to empower participants to parent effectively (Sarri & Finn 1992), and participation in programs focused on family preservation and stabilization have been found to increase the likelihood youth remain in their home of origin and reduce the likelihood of youth violence, hospitalization, and mental health relapse (Bright et al., 2018; Fraser et al., 1997; Sullivan et al., 2012). While multiple studies have documented that family preservation and stabilization services may improve outcomes for families and promote youth health, some findings are mixed. For instance, one study examining an in-home preservation services program in Milwaukee, Wisconsin found that families needed a broader range of services than was provided (Zinn & Courtney, 2008). In addition, families who received ongoing preservation services had lower incomes, and poverty may have contributed to unsafe home environments for children (Zinn & Courtney,

2008). Thus, attending to family risk factors and promoting preservation without addressing poverty may not be sufficient to reduce risk of maltreatment.

Family engagement, which refers to efforts to empower families to participate in case planning and decision-making, has gained attention in both research and practice (Toros et al., 2018). Effective family engagement techniques include building trusting relationships between child welfare professionals and families, providing emotional support, and ensuring that youth participate beyond a perfunctory level (Toros et al., 2018). Increased family engagement is associated with a lower risk of recidivism (i.e., maltreatment re-reports) within the child welfare system (Fuller & Zhang, 2017). Family engagement may also occur through parent education services. Specifically, system professionals may work with families to help them navigate system processes and promote family functioning (Cantrell, 2001; Coleman, 2001; Scott, 2017). Parent education through system navigation services may help families to better understand system processes and attain appropriate services (Cantrell, 2001; Coleman, 2001).

Other services may be available for parents and families with specific concerns, from substance use to parenting challenges, such as Parents Anonymous, a program serving parents and caregivers with behavioral health issues and those who care for youth with behavioral health issues (The California Evidence-Based Clearinghouse for Child Welfare, 2019). Research shows this program decreases parent and caregiver abuse-related attitudes and behaviors and increases knowledge of child behavior and development (The California Evidence-Based Clearinghouse for Child Welfare, 2019). For other families, services focused on youth behavioral issues (e.g., reducing disruptive and delinquent behaviors) may be mandated through the child welfare system (The

California Evidence-Based Clearinghouse for Child Welfare, n.d.- a, b). Overall, the child welfare system provides individual- and family-level services through various mechanisms with the intent of reducing family risk, and many interventions have implications for individual- and family-level health (e.g., substance use, mental health, hospitalization).

Recent policy shifts (i.e., Family First) will alter service provision in the child welfare system to support efforts to maintain a youth's placement in their home of origin. Specifically, families who are at risk of having their child(ren) placed in foster care will now be eligible for prevention services, including mental health, substance use, and parenting skill classes (Kelly, 2018). Thus, through Family First, at least in principle, family and health risks can be better addressed. However, families of origin, children involved in the system, foster parents, adoptive parents, and many system leaders still call for a more supportive system that protects and promotes child well-being through the provision of services while simultaneously addressing societal issues (e.g., inequities in housing, employment, mortality; Bywaters et al., 2016; Featherstone et al., 2021; Roberts, 2014a, 2012; Sarri & Finn, 1992; Woodward, 2021). Indeed, systemic racism and other intersections of oppression contribute to an overrepresentation of poor families of color in child welfare, and some argue the child welfare system should be positioned to prevent child abuse by addressing societal issues instead of offering reactionary services (Bywaters et al., 2016; Featherstone et al., 2021; Roberts, 2014a, 2012; Sarri & Finn, 1992; Woodward, 2021).

If in-home services are inadequate, and it is determined that a youth's current home environment is unfit or unsafe, the youth is placed into the custody of the child

welfare system and may reside in kinship care, a foster home, or a congregate care facility. Placement type within the child welfare system is associated with family risk (e.g., youth in kinship care are more likely to have experienced neglect, parents with substance use problems, birth parents who never married; Geen, 2004). Placement also has implications for later problems within the domains of family (e.g., congregate care is related to lower family stability) and health (e.g., congregate care is associated with greater emotional health concerns, psychiatric hospitalizations, and behavioral problems; Geen, 2004; Palmer et al., & Putnam-Hornstein, 2020). In sum, youth may experience and follow rather varied pathways in the child welfare system, and their trajectories and outcomes are influenced by previous system contact, family characteristics and risks, individual- and family-level health risks, and service provision.

1.1.4. Exiting Care: Permanency in and Aging Out from the Child Welfare System

Youth remain in custody of child welfare until a permanent placement is found or, if permanency is not achieved, youth age out of the system at a statutorily-defined age (e.g., 18, 21; the age varies across states) or upon high school graduation (McCoy et al., 2008). Youth who reach permanency will experience reunification with their family of origin, enter into a guardianship relationship, or experience adoption. The evidence suggests that family-based permanency with the youth's family of origin or placement within an adoptive family best promote youth development (Fruendlich et al., 2006). In fact, the meaning of permanency extends beyond the legal and physical placement to include the relational domains of belonging, love, safety, and stability (Fruendlich et al., 2006). Thus, youth who achieve permanency experience more stable family ties and connections to adults than youth who age out.

For youth who age out of the system, their system contact and access to resources terminate, unless jurisdictions offer and youth enter into an aftercare program, such as independent living, employment support, education support, or mentorship (Gunawardena & Stich, 2021; Schelbe, 2018). Youth who age out of the child welfare system tend to experience worse outcomes, such as greater rates of homelessness, poor health (e.g., serious mental health diagnosis, higher rates of substance use, chronic pain), lower health care utilization, and higher rates of criminal involvement (Kang-Yi & Adams, 2017; Klodnick & Samuels, 2020; Schelbe, 2018). However, variation in later criminal court involvement exists for youth who age out of child welfare. For instance, Crawford and colleagues (2018) found that, for youth who aged out, criminal involvement and felony charges were significantly associated with gender (i.e., boys), previous delinquency, parent history of drug or alcohol abuse, mental illness, and placement instability. In addition, youth who accessed education training vouchers were less likely to experience a felony adjudication in criminal court (Crawford et al., 2018). Overall, youth who age out of the system lack the stable familial ties and resources on which emerging adults tend to rely to develop life skills and transition to adulthood (Courtney & Heuring, 2005; Klodnick & Samuels, 2020; Schelbe, 2018).

Youth who do not reach their permanency goal but do not age out of the system in the typical way may cease system involvement due to death, absence without official leave (AWOL) status, transfer of custody from child welfare to the adult criminal court system, or their families no longer being under jurisdictional control (e.g., moved out of state or country; Child Welfare Information Gateway, 2017; Estin, 2011; McCoy et al., 2008).

Taken together, youth who achieve permanency are more likely to experience greater stability and better health compared to youth who age out from the child welfare system (e.g., Crawford et al., 2018; Fruendlich et al., 2006; Kang-Yi & Adams, 2017; Klodnick & Samuels, 2020; Stott, 2013). It is important to note that achievement of a youth's permanency goal reflects the ability of the child welfare system to establish a permanent legal placement for youth, not the youth's characteristics or behaviors (Klodnick & Samuels, 2020). Thus, those youth who age out of the system have been inadequately served. Further, the poor outcomes that youth who age out of the child welfare system tend to experience suggest that further consideration of this population is needed, particularly an examination of the role of risks and services on permanency achievement. Youth with child welfare and juvenile court involvement (i.e., multisystem youth) are more likely to age out of the child welfare system compared to their peers with only child welfare contact (McCoy et al., 2008); however, minimal research focuses on multisystem youth aging out of care (Orsi et al., 2018). To build on the extant literature base, this study examines differences in family and health risks and services for multisystem youth who age out compared to those who achieve their permanency goal.

1.1.5. Disparities in the Child Welfare System

Research points to a longstanding maintenance of policies in the child welfare system that have had disproportionately negative impacts on families of color, particularly Black and Indigenous families (Jimenez, 2006; Roberts, 2001, 2014b, 2012). While the "child savers" who established the foundation of our child welfare system aimed to support non-racialized white children's well-being, a punitive and borderline genocidal system to assimilate native children began with the use of orphan trains and

boarding schools in the U.S. and many other colonized lands (Testa & Kelly, 2020). In the 19th century, Black families were excluded from the public system of child welfare and, instead, relied on informal ties to kin and fictive kin to care for children when parents could not (Jimenez, 2006). Further, kin networks acted as a concentric circle of monitoring and surveillance to protect the well-being of children (Jimenez, 2006). Eventually, the informal, private kinship care networks established in Black communities became the target of child welfare policy, and the practice was deemed neglectful behavior through child abandonment (Roberts, 2001). With this shift, Black children and racialized youth were included in the child welfare system and were placed in formalized, out-of-home care (Jimenez, 2006; Roberts, 2001).

As the demographics in the child welfare system shifted, greater attention was focused on urban mothers of color. Roberts (2014a) points to the 'racialized geography' of the child welfare system with involvement concentrated in low-income communities of color. Notably, results from Roberts' (2014a) qualitative analysis found that mothers from a neighborhood with high child welfare involvement experienced social disconnection from their children and a distrust among neighbors, even when they were not involved with the system themselves. Despite criticism of system surveillance, respondents thought the child welfare system should be more involved with the neighborhood via efforts to meet material needs. Further, Roberts (2014a, 2012) argues that Black mothers who are involved with the child welfare system tend to experience surveillance of and punitive disruptions to their family lives, instead of being met by a system that supports them and addresses social inequities. Policymakers have attempted to respond to criticism that the child welfare system is overly punitive with recent

legislation (i.e., Family First) that expands services for families to prevent youth from entering foster care; however, cash assistance is only available for kinship caregivers or foster parents (Kelly, 2018), and substantial disparities remain.

Black youth are currently overrepresented in the child welfare system (Bywaters et al., 2016; Dettlaff et al., 2011). In fact, research demonstrates that racial bias in child welfare case decision-making contributes to the overrepresentation of Black youth in the system above and beyond family- and child-level factors (Dettlaff et al., 2011). In Mecklenburg County, North Carolina, the county of focus for the present study, Black youth are overrepresented at multiple child welfare stages (e.g., reports, substantiations, entering custody); however, data show disparities that begin at the reporting stage persist throughout system involvement (Tamilin et al., 2019a). The overrepresentation of Black youth in the system demonstrates the need to attend to bias, its intersection with family risk, and its impact on system trajectory and youth outcomes.

In addition to race, gender also appears to contribute to differential child welfare experiences. In particular, girls in the child welfare system may have distinct patterns of victimization, risk, and service utilization. As one noteworthy risk factor, girls are more likely to experience polyvictimization, the experience of multiple types of traumatic events (e.g., community violence, sexual assault, physical abuse; Dierkhising et al., 2019). Research suggests that the experience of polyvictimization increases the risk of long-lasting emotional, mental, and physical harm compared to exposure to a single type of trauma (Finkelhor et al., 2011). Girls are also more likely to be survivors of sexual abuse (Bae et al., 2007), which may contribute to worse adjustment outcomes. For instance, one effort found that, compared to individuals without a history of any type of

abuse, those who experienced childhood abuse were more likely to become high utilizers of medical care and emergency services, and this relation was strongest for individuals who experienced childhood sexual abuse (Arnow, 2004). Other studies have found that girls who have survived sexual abuse are more likely to be involved with the juvenile and criminal court systems (Ryan & Testa, 2005).

Girls in the child welfare system are more likely to experience some types of trauma, such as sexual abuse, but other risks (e.g., parental substance abuse, parental mental health issues, domestic violence in the home) may be less visible and, thus, less likely to be identified. Indeed, researchers suggest that, of those involved in the system, girls' risk level may be higher than boys' but girls' behaviors tend to be more discrete and less volatile – that is, girls are more likely to exhibit internalizing problems (e.g., shy, anxious, depressive, or withdrawn behaviors) in the face of stress and distress, while boys are more likely to evidence externalizing problems (e.g., acting out, oppositionality, aggression, anger) – which may divert attention from girls' problems (Chen et al., 2011). Consequently, while girls may experience higher levels of overall risk, they tend to have fewer risks identified by the child welfare system compared to boys (Chen et al., 2011).

Evidence suggests that the impact of maltreatment may also differ for girls. For example, girls who survive maltreatment are more likely to perpetrate violence (i.e., violent crime, intimate partner violence) later in youth and in adulthood, which may reflect an adverse emotional or behavioral effect of abuse (Maas et al., 2008). In addition, the impact of early maltreatment can become more pronounced over time for girls (Godinet et al., 2014). While risks may be higher, and effects of maltreatment may be

worse for girls, they may not receive services that adequately correspond to their risk level.

Research examining differences in service referral and provision for boys and girls is not conclusive. For instance, in an English sample, Bywaters and colleagues (2016) found that boys were more likely to be represented in child welfare interventions. In addition, in a sample of youth in kinship care, boys were more likely to utilize mental health services (Smithgall et al., 2013). However, in an examination of a collaboration between child welfare and mental health service providers, findings did not reveal a significant difference in mental health service utilization between boys and girls, but boys had significantly greater improvement in their mental health (Bai et al., 2009). While findings related to service provision across genders are mixed, boys may experience greater benefits from family- and health-related services compared to girls. Altogether, lower identified risk, potentially reduced access to services, and differential outcomes for girls may reflect a system in which girls' unique experiences and needs have been overlooked.

1.1.6. Outcomes for Youth Involved in the Child Welfare System

Youth with previous involvement in the child welfare system tend to experience worse outcomes and a more negative life course relative to youth without child welfare involvement (e.g., Arnow, 2004; Chen et al., 2011; Leslie et al., 2005; Segal et al., 2021). Moreover, youth who have contact with the child welfare system are more likely to have contact with the juvenile court system, encounter intergenerational involvement with child welfare, use drugs, experience homelessness, and have a higher risk of early mortality (Chen et al., 2011; Leslie et al., 2005; Segal et al., 2021). In addition, those with

child welfare contact are more likely to have poor mental and physical health, specifically: higher rates of depression, substance use, and psychiatric illness; more physical symptoms, both medically explained and unexplained; greater reported chronic pain; and higher engagement in health risk behaviors (Arnow, 2004).

Maltreatment history may also relate to later outcomes. In addition to their impact on childhood functioning, physical and sexual abuse are linked with psychopathology in adulthood (Adams et al., 2018). In one study examining physical abuse, findings revealed that experiencing physical abuse in childhood was related to worse social adjustment, lower self-esteem, lower satisfaction with social support, and higher reports of depressed mood in women (Griffin & Amodeo, 2010). In that study, while the severity of abuse did not predict outcomes, family environment mediated the relation such that more positive quality of family environment (i.e., greater cohesion, expressiveness, and organization as well as lower conflict) mitigated the effects of childhood physical abuse (Griffin & Amodeo, 2010). Beyond individual symptoms and their impact on the family environment, abuse also has implications for medical use. In a study utilizing Medicaid data, Jackson and colleagues (2016) found that physical and psychological abuse did not increase rates of medical visits or hospitalizations; however, youth who experienced sexual abuse or neglect had higher rates of medical visits. Characteristics of youths' system experience are also important for youth outcomes. For instance, youth who have been maltreated who experience placement instability, placement in a congregate care setting, or age out of the child welfare system have worse health (see Arnow, 2004; Geen, 2004; Kang-Yi & Adams, 2017; Palmer et al., 2020). It is imperative to note that many youth who survive abuse never come into contact with the child welfare system and still

tend to experience worse outcomes. For instance, research using self-report data demonstrates that adults who report childhood maltreatment experiences are more likely to evidence psychiatric illness (Arnow, 2004; Bernet & Stein, 1999). Thus, overall, youth with a history of maltreatment tend to have worse outcomes later in life, and these outcomes vary based on type of abuse, the nature of their system contact, and other contextual factors.

1.2. The Juvenile Court System

This section discusses the history and goals of the juvenile court system, potential pathways for contact, differences in risks and experiences across the system based on race or ethnicity and gender, and long-term outcomes for youth. A discussion of the juvenile court system, its reach, and provision of services is warranted for understanding system trajectory and outcomes for multisystem youth. Of relevance for this study, the following section also considers implications of involvement with the juvenile court system, particularly those related to family and health.

The juvenile court system is intended to hold youth responsible for their actions while separating them from adult processes and methods of punishment (Behrendt-Mihalski et al., 2021). Complicating circumstances, the juvenile court system is fragmented in a manner similar to the child welfare system. Specifically, juvenile court policies and practices differ across jurisdictions, but jurisdictions are subject to federal law and oversight. Over time, the Supreme Court of the United States has issued decisions that have upheld the rights of youth (e.g., the right to an attorney, due process, and standard of proof; the right against self-incrimination) and maintained the non-adversarial, holistic focus of the juvenile court system (Fraser, 2001). That said, while the

juvenile court system is focused on rehabilitation in principle, policy has alternated between "tough on crime" and supportive approaches. For instance, in the past, some states passed laws to enact mandatory minimums for youth and increase the use of detention (Fraser, 2001). However, more recently, there has been an uptick in policy efforts to reform the juvenile court system by including older youth (e.g., over 15 years) and excluding younger youth (e.g., under age 10; Clements, 2021; Tamilin et al., 2019b; Teigen, 2021).

Youth may have varied levels of contact with the juvenile court system: from diversion at contact with law enforcement to incarceration (Langberg & Robinson, 2014). Youth with higher family and health risks are more likely to evidence deeper involvement with the juvenile court system. For instance, youth from families with criminal histories are more likely to be involved with juvenile court and experience incarceration (Barrett et al., 2015). Other risks such as mental health issues and substance use at the individual- or family-level are also related to juvenile court involvement (Chuang & Wells, 2010; Herz, 2016; Vidal et al., 2019). Overall, the available data indicate that family and health risks are related to youth contact with and trajectory through the juvenile court system (e.g., Barrett et al., 2015; Chuang & Wells, 2010; Herz, 2016; Vidal et al., 2019). In addition, research suggests that youth with juvenile court involvement tend to have more negative longer-term outcomes, including higher rates of adult criminal court involvement and less access to medical care (Barnert et al., 2016). In view of these various factors and findings, it is critical to consider youth involvement with the juvenile court system to better understand short-term as well as broader life course outcomes for youth with single- and multisystem involvement.

1.2.1. Juvenile Court History and Goals

The first juvenile court was established in Chicago, Illinois in 1899 to serve youth up to age 16. In addition to adjudicating children considered "delinquent," the court also had jurisdiction over children viewed as "neglected" and "dependent." Juvenile courts were established in North Carolina through the Probation Courts Act of 1915, which established separate categories for dependent and delinquent youth, created distinct processes for trial and record-keeping, and instituted the use of probation and training schools for youth (North Carolina Department of Public Safety [NCDPS], n.d.-a). The first juvenile courts established foundational standards, such as a rehabilitative focus, confidential records to reduce stigma, and a separation of youth from adults—both physically and ideologically (Fraser, 2001).

Today, the juvenile court system is intended to balance public safety with youth development and well-being (Behrendt-Mihalski et al., 2021). The juvenile and criminal court systems employ different approaches, with different objectives, as illuminated by the language used in these systems. That is, in adult criminal court, the objective is to determine if an individual is guilty of a crime and, if so, the court focuses on restitution and punishment; while in juvenile court the focus is on "responsibility," and if youth are found to "be responsible" for an act, they may experience additional contact with the system to mitigate future juvenile and criminal court involvement (Behrendt-Mihalski et al., 2021).

In principle, the juvenile court strives to process cases efficiently while attending to and accounting for the broader circumstances of the child's life (e.g., school, family, health, housing) and providing services when appropriate. The juvenile court system

mandates family engagement and participation. In fact, judges may order parents or guardians to take part in services independently or with youth (North Carolina Judicial Branch, n.d.-c). The court may mandate a parent or guardian to provide transportation for youth to meetings and services or may order parents to participate in mental health or substance abuse treatment, parental responsibility classes, or other services. Parents and guardians who do not comply with court orders may be held in contempt (North Carolina Judicial Branch, n.d.-c). The juvenile court system also seeks to attend to youth health and may mandate mental or behavioral health services (Office of Juvenile Justice and Delinquency Prevention, 2019). In some cases, youth demonstrate significant medical needs that cannot be addressed by their families, and a juvenile court judge may place youth into the custody of the child welfare system to facilitate Medicaid coverage (NC GS 7B-1905(a); North Carolina Judicial Branch, n.d.-a). Thus, the broad reach of the juvenile court has implications for family stability, as well as family and child health.

1.2.2. Types of Contact and Involvement within the Juvenile Court System

Across jurisdictions in the U.S., pathways through the juvenile court system, offense classification, and available services vary. In North Carolina, involvement with juvenile court begins with a formal complaint (Langberg & Robinson, 2014; see Figure 1). Complaints can originate from law enforcement, school officials, or any citizen who files a report. After the complaint is filed or law enforcement is present at the scene, law enforcement will conduct an investigation, and a youth may be taken into temporary custody or diverted through release or referral to resources (Langberg & Robinson, 2014). Diversion can occur at the point of law enforcement contact, at intake through court counselor decision, or in court via judicial ruling (Schlesinger, 2018). In North

Carolina, diversion programs remove youth from formal court processing to provide services to youth. Youth must meet requirements (e.g., attend school, participate in services) to continue in a diversion program and avoid additional contact with the court (Schlesinger, 2018). There is some debate about the benefit and harm of diversion programs as they keep youth out of juvenile court but can also extend the reach of the system and, in turn, involve youth who would otherwise have their cases dismissed (Mears et al., 2016).

Youth taken into the temporary custody of the juvenile court system experience an intake process in which their case may be dismissed, they may be referred to resources through diversion, or they may have a petition filed against them (i.e., indicating that a case will formally proceed in the court; Langberg & Robinson, 2014). At the petition stage, youth will receive a court date for their first appearance hearing and, depending upon the nature of their alleged offense and risk level (e.g., previous juvenile court history, school attendance, substance use, gang affiliation) may enter secure custody (e.g., detention; Langberg & Robinson, 2014). If youth enter secure custody, they are entitled to detention hearings every ten days to determine if they can return to their home community before court proceedings end (NC GS 7B-1903(C)). Youth who are placed in detention experience disconnection from their families, inadequate mental health services, and school disruption (Fraser, 2001). In addition, youth placed in the secure custody of juvenile court lose access to Medicaid coverage, which may disrupt healthcare (42 CFR § 435.1009 and 42 CFR § 435.1010; Hanlon et al., 2008).

Court proceedings continue after intake to adjudication where it is determined if youth are responsible for the alleged delinquent act (Langberg & Robinson, 2014). A

foundational component of the juvenile court system is promotion of rehabilitation through a focus on responsibility rather than guilt (Behrendt-Mihalski et al., 2021). If allegations are determined to be true and youth are found to be responsible, a dispositional hearing is held, and a judge determines the case outcome (Langberg & Robinson, 2014).

Alternatively, youth may be dismissed from the juvenile court system at the adjudication stage. If a case is dismissed in juvenile court, court involvement may end, or the case may be transferred to adult criminal court (Langberg & Robinson, 2014). Youth who become involved with criminal court are more likely to reoffend, and future offenses are more likely to be violent (Hahn et al., 2007). In addition, involvement in criminal court as a child is related to higher rates of suicide, and placement in an adult facility (i.e., jail, prison) may aggravate existing mental health issues for youth (Ruch et al., 2019). Unlike juvenile court, the adult system does not consider broader contextual factors that may be related to youth behavior and, as such, appropriate services focused on rehabilitation are unavailable, and facilities may not provide developmentally-appropriate mental health services (Ruch et al., 2019).

Youth who proceed in juvenile court from adjudication move to the disposition stage. At this stage, a judge may dismiss a case, and youth will not remain under court supervision. Alternatively, a judge may choose to continue a case (i.e., postpone making a ruling) for up to six months and, at the subsequent hearing, submit a ruling. For other youth, judges may determine at disposition that there is a need for continued supervision and place a youth in protective supervision, probation, or a youth development center (Langberg & Robinson, 2014). Compared to the general population, youth who

experience incarceration in youth or adult facilities evidence higher morbidity and greater mortality, experience less access to health care, engage in higher levels of high-risk behaviors (e.g., violence, substance use), demonstrate lower rates of high school completion, and are more likely to become involved with the criminal court system (Aizer & Doyle, 2015; Barnert et al., 2016). Taken together, youth who are involved with the juvenile court system tend to have worse outcomes compared to their peers, and youth who more deeply penetrate the system tend to have the worst outcomes.

1.2.3. Disparities in the Juvenile Court System

As in the child welfare system, there are well-documented disparities in the juvenile court system. In particular, research has found Black youth tend to be overrepresented in the juvenile court system (Dawson-Edwards et al., 2017; Evangelist et al., 2017). Specifically, Black youth are more likely to be detained, incarcerated, and transferred to adult criminal court, all of which are related to later criminal involvement and poorer education and health outcomes (Evangelist et al., 2017; McCarter, 2017). An examination of the overrepresentation of Black youth in the juvenile court system found that disparities remain even when controlling for prior referrals, type of offense, and severity of offense (Evangelist et al., 2017). It is critical to underscore that analyses indicate that the overrepresentation of Black youth and youth of color in the juvenile court system results from over-policing, the criminalization of poverty, and differential treatment based on social capital; overrepresentation cannot be explained by differential offending behavior (McCarter, 2017). Thus, race becomes a necessary variable for inclusion in any examination of processes and outcomes within the context of juvenile court.

There are also differential rates of representation by gender. Specifically, girls represent a smaller proportion of those involved with the juvenile court system and account for less than one-third of serious crimes in the juvenile court system (Ehrmann et al., 2019). In light of those numbers, it is notable that, although youth crime (including violent crime) has decreased for both boys and girls in past 25 years, the proportion of girls in the system has increased as has the proportion of girls involved in violent crimes (Ehrmann et al., 2019).

Research has identified differential pathways to court involvement for girls, including varying exposure to risk, processing patterns, and outcomes. Research has long pointed to the leniency girls may experience at the stage of arrest, with law enforcement tending to be more willing to divert girls and less likely to place them under arrest (Chesney-Lind, 1977; Leiber & Peck, 2015; Wordes & Bynum, 1995). However, girls tend to be arrested at higher rates for status offenses (e.g., running away, alcohol use, truancy, curfew violations), which some view as reflecting gender role expectations of propriety (Javdani et al., 2011; Sickmund & Puzzanchera, 2014).

Compared to girls without court involvement, girls with delinquency charges are more likely to be eligible for free or reduced lunch, have contact with the child welfare system, and have a mental health diagnosis related to aggression or impulse control (Barrett et al., 2015). Girls with juvenile court involvement also tend to experience different types and, in some cases, higher levels of risk for future offending compared to boys in the system. Rhoades and colleagues (2016) examined factors related to continued offending for youth with juvenile court involvement that resulted in contact with the adult criminal court system. They found that boys had greater and deeper involvement in the

juvenile court system and that the number of juvenile court records predicted their arrest in adulthood. For girls, juvenile court involvement did not predict adult arrest; however, family violence, parental divorce, abuse, and serious drug/alcohol use were predictors (Rhoades et al., 2016). Other studies support the finding that drug use and family involvement with criminal court are associated with girls' juvenile court involvement and repeat offending (Barrett et al., 2015). Thus, girls may experience different risk factors that contribute to differential offending patterns and system involvement – as well as longer-term system and adjustment trajectories – compared to boys.

Intersecting identities, such as race and gender, may also be relevant to experiences in the juvenile court system. Specifically, white girls tend to encounter greater leniency in court compared to girls of color and boys (Leiber & Peck, 2015; Macdonald & Chesney-Lind, 2001). Furthermore, Lopez and Nuño (2016) suggest that, for Latina and Black girls, courts may rely on racialized and gendered stereotypes that are rooted in deficits (e.g., sexually promiscuous, difficult to work with, manipulative, high needs), which can contribute to reduced access to behavioral health services.

Girls may also evidence distinctive patterns of recidivism – in general, they tend to exhibit lower rates of recidivism compared to boys (Baglivio, 2009; Campbell et al., 2018) and, relative to boys, different factors seem to be associated with their recidivism. Specifically, the available data suggest that girls' recidivism in juvenile court is related to earlier age of initial offense, severity of initial offense, drug use, and family delinquency, while boys' recidivism is related to number of previous juvenile court cases (Barrett et al., 2015). Researchers suggest additional attention should be paid to girls' recidivism patterns and the impact of trauma on those patterns (Kerig, 2018). Overall, research

suggests that, more generally, greater attention should be given to girls in the juvenile court system because they experience differential risk patterns and the existing interventions have been designed primarily for boys – as such, girls' unique needs may not be addressed (Barrett et al., 2015; Fraser, 2001; Javdani & Allen, 2016; Kerig, 2018). Accordingly, a closer examination of gender is necessary to understand risks and service provision for girls who have juvenile court involvement.

1.2.4. Outcomes for Youth Involved in the Juvenile Court System

While youth tend to age out of and desist from delinquent behaviors (Piquero et al., 2007), youth with involvement in the juvenile court system still tend to experience worse life course outcomes compared to youth without involvement. Specifically, relative to those who do not have contact, youth with juvenile court contact have lower rates of educational achievement, higher rates of school dropout, lower rates of employment, and lower levels of earnings, as well as a greater likelihood of becoming involved in the adult criminal court system (Fabelo et al., 2011). Youth with juvenile court involvement also tend to have more extensive health needs, especially related to behavioral health, compared to the general population, which increases the importance of health coverage for this population (Zemel & Kaye, 2009). For instance, research suggests youth with juvenile court involvement are more likely to have a mental health disorder, experience comorbid mental health disorders, and abuse substances (Golzari et al., 2006; Shufelt & Cocozza, 2006). In addition, while the data are limited, juvenile court-involved youth tend to have unmet physical health needs such as inadequate dental care and improperly healed bones (Feinstein et al., 1998).

Outcomes also vary depending on the type of contact with the system and the severity of offense. Specifically, youth with felony charges are more likely to have future contact with the juvenile and/or criminal court system, have fewer employment opportunities, and be more likely to be denied government benefits (e.g., welfare, student loans) in adulthood (Berson, 2013; Crawford et al., 2018). In addition, youth who are detained or incarcerated are more likely to have later involvement with criminal court, drop-out of school, and access medical care at lower rates (Barnert et al., 2016). Thus, while longer-term outcomes vary, individuals who have experienced juvenile court system involvement tend to fare worse later in life.

1.3. Multisystem Youth

This section focuses on youth who are involved with the child welfare and juvenile court systems, including considerations of their pathways to multiple system involvement, competing goals and a lack of coordination between systems, potential patterns of involvement, the implications of race and gender for multisystem youth, and general life course outcomes for multisystem youth. There is a dearth of research examining the population of multisystem youth, and research exploring risk and service provision for this population is even more limited. Thus, this study intends to build upon the current limited literature base to further examine the population of multisystem youth and assess the role of risks and services across health and family on youth permanency outcomes. Results from this study may elucidate how family and health risks may hinder permanency goal achievement and clarify the nature and type of services that may mitigate these risks to promote permanency and stability for multisystem youth. Further, results may inform policy and practice change to better support multisystem youth in the

juvenile court system and child welfare system, as well as within other community-based service contexts.

Youth may experience concurrent or distinct contact with the child welfare and juvenile court systems. These youth may be referred to as crossover, dually-served, or dually-adjudicated, among other labels. In a qualitative investigation, youth reported perceptions of harsher treatment due to their dual-involvement status (Simmons-Horton, 2020). Furthermore, many youth report stigma associated with their involvement in juvenile court and child welfare (Abbott & Barnett, 2016). In the present study as well as previous work, the term multisystem youth is used in an attempt to reduce stigma for this population (Behrendt-Mihalski & Kilmer, 2021; Vidal et al., 2019).

For multisystem youth, family risks (e.g., domestic violence, substance abuse) and health risks (e.g., presence of mental or behavioral health concern) are related to system contact, deeper involvement, and worse outcomes (Herz et al., 2010; Ryan et al., 2013; Vidal et al., 2019). Enhancing understanding of the risks faced by multisystem youth – and their impact – can inform the assessments and approaches employed in child welfare and juvenile court. Beyond risk exposure, the nature of the services received is also crucial to consider for multisystem youth; however, there is limited research examining service provision for these youth (Behrendt-Mihalski & Kilmer, 2021; Orsi et al., 2018; Vidal et al., 2019). Overall, services that focus on health promotion, Medicaid maintenance, family engagement, and system engagement may contribute to better life course outcomes for public system-involved youth (see Hanlon et al., 2008; Orsi et al., 2018; Vidal et al., 2019; Zemel & Kaye, 2009). Given the positive implications of health and family services, further examination of these services is warranted. This study builds

on the current literature to enhance understanding about the risks and services related to family and health for multisystem youth and the implications of those risks and services for achievement of permanency goals.

1.3.1. Pathways to Multisystem Involvement

Research points to four pathways through which youth become involved in both the child welfare and juvenile court systems. The first and most common pathway is when a youth with existing child welfare involvement then has contact with juvenile court and becomes concurrently involved with both systems (Abbott & Barnett, 2016; Hirsch et al., 2018; Herz et al., 2010). Another pathway involves discrete involvement with both systems: youth have contact with child welfare and, after that involvement has ended, they have contact with the juvenile court system (Abbott & Barnett, 2016). A third pathway to multisystem involvement is through placement instability after juvenile court involvement. Specifically, youth may be placed in the custody of child welfare when exiting a juvenile court placement (e.g., detention facility, youth prison) due to a lack of placement (e.g., cannot return home; Abbott & Barnett, 2016). A final pathway includes youth who become involved in juvenile court and are referred to child welfare through delinquency proceedings (Cusick et al., 2008). Youth who are multisystem involved via the fourth pathway are the focus of this study. Findings from this study contribute to the literature base as there is limited research related to this population of youth (Abbott & Barnett, 2016; Behrendt-Mihalski & Kilmer, 2021; Herz et al., 2019; Herz et al., 2010).

1.3.2. Competing System Goals and Lack of Coordination

While multisystem youth tend to experience higher levels of risk compared to their single-system peers, some reports suggest the harsher treatment (e.g., more out-of-

home placements, more restrictive placements, stricter juvenile court sentencing) multisystem youth encounter is a reflection of the competing goals of the child welfare and juvenile court systems (Herz et al., 2010; Ryan et al., 2007). For instance, the child welfare system's mission leads it to focus on youth safety (NCDHHS, n.d.-a), while the juvenile court system has a dual focus on community and youth safety (NCDPS, n.d.-b). In addition, the advocacy goals in each system differ meaningfully. Specifically, advocates representing youth in the child welfare system seek to protect the best interest of youth, while advocates in the juvenile court system are bound under the 14th amendment of the U.S. Constitution to represent the expressed interest of youth. Through best interest legal representation, counsel advocates for an outcome they determine is in the best interests of the child; however, their advocacy may not reflect the youth's wishes (Duchschere et al., 2017; Husain, 2010; Taylor, 2009). A best interest approach should be based in factual investigation (e.g., records review, in-home visits) and take into consideration biopsychosocial, socioemotional, and developmental factors (Miller et al., 2020). However, best interest representation may not promote positive outcomes for all youth. In an analysis of institutional racism in the child welfare system, Hill (2004) notes best interest representation is less likely to foster safety for Black youth and youth of color.

Expressed interest representation refers to a client-directed legal practice in which counsel advocates for outcomes articulated by their client (Guggenheim, 1984). Many states, including North Carolina, utilize a best interest approach for youth in child welfare proceedings. Other states use a hybrid model in which counsel or the guardian *ad litem* (i.e., volunteers who advocate for children in child welfare proceedings) fulfills both best

and expressed roles, unless their best interest position and the client's expressed interest differ, in which case the best interest approach is favored (Miller et al., 2020). While best interest representation is the norm for youth in child welfare proceedings, this is an area of contention within the legal field, and the American Bar Association (2011) has advocated for use of a client-directed, expressed interest approach in child welfare proceedings.

Multisystem youth are an often-overlooked population for both practitioners and researchers due to a lack of coordination and data sharing processes, and the siloing of public systems (Haight et al., 2016; Herz et al., 2019; Herz et al., 2010; Stone & Zibulsky, 2015). Most youth who become involved with the juvenile court or child welfare system will experience involvement in the other system (Vidal et al., 2019). However, system professionals are often unaware youth are involved in the counterpart system (Herz et al., 2010). Lack of coordination between systems hinges on the absence of integrated procedures and data sharing agreements (Herz et al., 2019; Herz et al., 2010; Ryan & Testa, 2005; Vidal et al., 2019). The lack of coordination between systems may confuse and frustrate families because services may be duplicated, service plans across systems may conflict, and adequate and appropriate services to address needs may not be provided or available (Wright et al., 2017). In addition, the absence of collaboration between systems may increase costs and contribute to resource waste (Wright et al., 2017) – beyond the human cost of systems that are functioning nonoptimally. When systems work together through integrated service planning and data sharing processes, families report higher satisfaction with the systems and with the services received (Haight et al., 2014).

1.3.3. Risk and Service Provision for Multisystem Youth

Multisystem youth experience high levels of family- and health-related risk. Compared to their single system peers, youth who cross over from one public system to another are more likely to be from disadvantaged backgrounds and experience family risks, including higher rates of exposure to domestic violence, lower levels of social support, and less stability in family relationships (Herz et al., 2010; Ryan et al., 2013). In addition, multisystem youth are more likely to have a history of parental substance abuse and family receipt of public assistance, and they tend to encounter more types of recurring maltreatment (Vidal et al., 2019). Multisystem youth also experience greater health risks of their own compared to their single-system peers. For instance, studies show that multisystem youth are diagnosed with mental health and substance abuse problems at higher rates (Chuang & Wells, 2010; Herz, 2016). Multisystem youth also experience fewer dismissals from juvenile court and are more likely to be placed in congregate care over home-based services (Baglivio et al., 2016; Herz et al., 2010). While multisystem youth tend to experience high rates of family and health risks, the decision to offer in- or out-of-home services is not always data informed and, instead, reflects professional bias (Gilbert et al., 2012; Huang et al., 2015; Yoon et al., 2018).

Multisystem youth are a high needs population, but service provision does not always meet their needs (Behrendt-Mihalski & Kilmer, 2021; Herz et al., 2019; Orsi et al., 2018; Vidal et al., 2019). Limited research focuses on service provision involving multisystem youth and their families. The only study identified in this review assessing family-level intervention for concurrently-involved multisystem youth was Orsi and colleagues' (2018) examination of the use of core services for families in Colorado. In

this study, core services refer to short-term strengths-based services intended to support families in identifying resources, strengthen child-rearing practices, and promote effective responses to stress, with specific services including home-based interventions, intensive family therapy, behavioral health services, special economic assistance, and life skills services (Orsi et al., 2018). Findings revealed that families who received core services were more likely to have their child(ren) remain or return home compared to families who did not receive these services (Orsi et al., 2018). In another study that examined potential cross over from the child welfare system into the juvenile court system, Coleman and Jenson (2000) investigated the impact of a child welfare-mandated family preservation program on delinquency up to three years after program completion. Almost half of their sample (45%) was adjudicated delinquent in the follow-up period, which suggests family preservation programs may not be effective in preventing multisystem involvement (Coleman & Jenson, 2000).

Vidal and colleagues (2019) argue that there is a lack of adequate, family-related, evidence-based practices available for multisystem youth. Moreover, they suggest that utilizing family-level interventions may mitigate the relation between adverse family environment and multisystem involvement (Vidal et al., 2019). However, the minimal available research impacts the degree to which system administrators, practitioners, and others can utilize an empirically-grounded approach. Moreover, the lack of attention in the literature to family services for multisystem youth further highlights their hidden status and the paucity of services designed to meet their unique needs.

Even for single-system youth, services may not be sufficient. Research examining the use of family engagement and education services in child welfare and juvenile court

demonstrates that services may improve the parent-child relationship and parents' ability to prevent behavior problems in their child(ren), but services available through the system may not adequately address or be responsive to all family issues (e.g., securing housing; Burke et al., 2014; Piquero et al., 2009; Young et al., 2007).

Health-related services for multisystem youth may also be inadequate to meet their needs. Specifically, research suggests multisystem youth often experience gaps in service provision which may exacerbate emotional and mental health issues (Abbott & Barnett, 2016). In addition, multisystem youth of color are affected by professional bias within child welfare and juvenile court, which may lead to a lower likelihood of being referred for mental health services (Kim et al., 2020; Yoon et al., 2021). Relatedly, multisystem youth who experience educational risk are less likely to access mental health services (Hirsch et al., 2018), which may have long-term implications for their functioning. Consistent with these findings, Dierkhising and colleagues (2019) posit that multisystem youth have higher healthcare costs and health service utilization into adulthood due to unmet health needs in childhood and adolescence. Some available data bear this out. For instance, in an analysis of young adults with histories of single and multiple system involvement, multisystem youth service usage costs were 36.7% higher than youth with only juvenile court contact and 40.2% higher than youth with only child welfare contact (New York City Office of the Mayor, Center for Innovation Through Data Intelligence, 2015).

In addition to greater health risks and needs, youth who experience contact with juvenile court and/or child welfare are more likely to be eligible for Medicaid but, unfortunately, also experience difficulties with benefit disenrollment while in system

custody (Anderson et al., 2019; Hanlon et al., 2008; Raghavan et al., 2016; Zemel & Kaye, 2009). Minimal research has examined Medicaid disenrollment patterns for youth with child welfare contact, and most of the available research has focused on initial Medicaid access for youth who enter foster care (Raghavan et al., 2016). While 99% of youth in foster care are eligible for Medicaid, only 84% of eligible youth are covered by Medicaid (Raghavan et al., 2016). Youth placed into foster care are categorically entitled to Medicaid, while youth who remain in their home of origin or are reunified may qualify for Medicaid through income-based criteria (Raghavan et al., 2016). Child welfare professionals often work with families to obtain Medicaid coverage when youth remain in their home of origin and are eligible (Raghavan et al., 2016). Thus, eligibility for Medicaid for youth involved in child welfare is dependent on placement, and changes in placement may disrupt coverage. Highlighting these challenges, Raghaven and colleagues (2016) found that 50% of youth with child welfare contact maintained Medicaid coverage over a four-year period, and 50% were disenrolled from coverage. Ensuring that youth secure and retain health coverage is critical to meet physical and behavioral health needs.

For youth with juvenile court involvement, maintaining Medicaid coverage is more complicated. Federal law prohibits the use of Medicaid dollars to support inmates in secure facilities, including youth in juvenile detention facilities or youth development centers (42 CFR § 435.1009 and 42 CFR § 435.1010). Thus, any time a youth enters secure custody of the juvenile or criminal court system, they lose access to services provided by Medicaid coverage. Youth in nonsecure settings have access to Medicaid coverage and, in some cases, youth will remain on the Medicaid roll while in secure

custody, but the state cannot use Medicaid funds to pay for their care (Hanlon et al., 2008). In a study examining Medicaid disenrollment patterns for youth in juvenile court, disenrollment was associated with being older, male, and Black; having a felony arrest; having a higher number of previous arrests; and receiving harsher sentencing outcomes (i.e., detention, incarceration in youth system, transfer to adult system; Anderson et al., 2019). Thus, maintaining Medicaid coverage is critical to promoting health, but multisystem youth may encounter meaningful barriers, including disenrollment or service disruption.

A limited body of research has examined the role of collaboration between and among systems to assist youth in maintaining Medicaid coverage while they are in the custody of the child welfare or juvenile court system (Hanlon et al., 2008; Zemel & Kaye, 2009). Similar to the disconnect between juvenile court and child welfare professionals, there is a lack of collaboration between the juvenile court system and Medicaid agencies, with few agencies collecting data on youth involved with both systems. In addition, Medicaid agencies do not collect or track data in such a way that enables examination of cost of care, diagnosis, or services provided to multisystem youth (Zemel & Kaye, 2009). Thus, little is known about Medicaid coverage and usage for multisystem youth. To promote better health outcomes for youth, Hanlon and colleagues (2008) point to the need for data sharing, increasing familiarity with policies and procedures related to eligibility and delivery of Medicaid services for juvenile court-involved youth, and identifying and addressing areas of fragmentation and duplication to improve services across juvenile court and Medicaid agencies. By facilitating greater collaboration,

systems can better meet the clinical needs of youth, provide early identification of health issues, and maintain provider continuity (Hanlon et al., 2008).

Research assessing service provision for multisystem youth has primarily focused on collaboration among system professionals (e.g., Abbott & Barnett, 2016; Haight et al., 2014; Wright et al., 2020). For instance, the Crossover Youth Practice Model (CYPM) aims to reduce future system contact by improving communication practices and promoting collaborative efforts (e.g., data sharing, integrated service planning). Increasing collaboration among system professionals may improve outcomes for youth and families. Specifically, use of the CYPM creates structural changes in service provision, which have resulted in a broader array of services and reduced service duplication (Haight et al., 2014). Use of the CYPM also increases family engagement, which may contribute to reduced recidivism in youth (Haight et al., 2016). Holistic approaches such as the CYPM engage professionals from multiple systems (e.g., behavioral health, child welfare, juvenile court), with the objective of increasing the likelihood that youths' health needs are met (Cusick et al., 2008; Munson & Fruendlich, 2005). Multisystem youth may also benefit from specialized legal representation that focuses on holistic strengths and needs (Herz et al., 2010). Specifically, Herz and colleagues (2010) found that specialized legal representation reduced the likelihood of multisystem youth experiencing formal processing in juvenile court.

While multisystem youth experience risk factors across several domains, particularly family and health, research focusing on or including these areas is scant. Indeed, the literature focusing generally on multisystem youth is rather underdeveloped. As such, the present study seeks to examine the role of family and health risks and

services on the achievement of permanency for multisystem youth. While research assessing risk and services for multisystem youth is limited, a recent examination of educational risks and services for multisystem youth suggests that the provision of educational services may mitigate the impact of educational risk on permanency achievement for multisystem youth (Behrendt-Mihalski & Kilmer, 2021).

1.3.4. Disparities in the Child Welfare and Juvenile Court Systems

Similar to the child welfare and juvenile court systems, Black youth are overrepresented in the population of multisystem youth (Cutuli et al., 2016; Dierkhising et al., 2019; Herz et al., 2010; Ryan et al., 2007; Shipe et al., 2017). It is critical to underscore that research suggests differential behavior does not generate disparities in public systems, but racism, sexism, and classism contribute to the overrepresentation of some youth (i.e., racialized youth, boys, youth from disadvantaged backgrounds; Dettlaff et al., 2011; McCarter, 2017). In turn, bias within the child welfare and juvenile court systems may foster harsher treatment and a lower likelihood of referral to mental health services and educational supports for multisystem youth of color (Kim et al., 2020; Yoon et al., 2021). Racial bias in the juvenile court system is evident through the overrepresentation of Black youth despite offending patterns that are similar to those of their peers (McCarter, 2017). In child welfare, research points to racial bias in decision-making as a greater contributor to the overrepresentation of Black youth than child- or family-level factors (Dettlaff et al., 2011). These biases – clear in each system – persist when youth cross over from a single public system into another. Specifically, Black multisystem youth experience longer case duration, as well as more placements in out-of-home settings and greater placement instability in those settings (Herz et al., 2019).

While boys are more likely to experience contact with both child welfare and juvenile court (i.e., multisystem involvement), girls are overrepresented in the population of multisystem youth compared to the juvenile court population generally (Herz et al., 2010; Ryan et al., 2013). Researchers posit girls have differential experiences which increase the likelihood they will to cross over into multiple systems. Specifically, girls tend to experience higher levels of maltreatment and, as noted, they are more likely to be exposed to multiple types of victimization (i.e., polyvictimization; Huang et al., 2012; Ryan et al., 2013). Girls with juvenile court involvement tend to experience higher rates of sexual abuse, which is thought to be related to higher rates of co-occurring behavioral and physical health issues, engagement in risky sexual behaviors, and drug use (Leve et al., 2015). Thus, multisystem girls and girls with juvenile court involvement who have also experienced maltreatment may have unique needs.

Research points to differences in service provision based on gender for youth with public system involvement. For instance, Kim and colleagues (2020) found multisystem girls were more likely to receive mental health services compared to boys, but significant differences in dosage (i.e., number of sessions) were not detected. There is limited research focusing on service provision for multisystem youth, and even less is available examining gender differences. As one exception, a recent study, growing from work with the same agency, examined education risks and services found that boys experience higher levels of risk, but did not detect significant differences in service provision between genders (Behrendt-Mihalski & Kilmer, 2021). Studies examining gender differences in receipt of mental health services for youth involved with the child welfare system have been mixed, with some finding non-significant gender differences or that

boys utilize mental health services at a greater rate (Horwitz et al., 2012; Hurlburt et al., 2004). For juvenile court-involved youth, researchers suggest interventions are more likely to cater to boys' needs because of their overrepresentation in the system and services may not adequately address girls' unique needs, particularly related to polyvictimization (Herz et al., 2019; Kerig, 2018). Thus, it is critical to examine gender differences in risks and services for multisystem youth to better understand how to serve this population. This study aims to add to the current research base by examining gender differences in risks and services across the domains of family and health for multisystem youth.

1.3.5. Outcomes for Multisystem Youth

Multisystem youth tend to experience heightened levels of risk and poorer outcomes compared to the general population and their single system peers (Baglivio et al., 2016; Herz, 2016; Herz et al., 2010; Orsi et al., 2018; Ryan et al., 2013; Vidal et al., 2019). Multisystem youth tend to experience higher risks (e.g., domestic violence, lower family stability, higher rates of substance use) but research attending to service provision is scant and suggests services do not meet the needs of multisystem youth (Abbott & Barnett, 2016; Herz, 2016; Herz et al., 2010; Ryan et al., 2013). In turn, multisystem youth are more likely to experience harsh juvenile court penalties, restrictive placements, and higher rates of recidivism (Herz et al., 2010; Ryan et al., 2007).

Involvement in multiple systems also has implications for system trajectory as multisystem youth are less likely than their peers with child welfare involvement to achieve permanency (Orsi et al., 2018). Further, permanency status varies across multisystem youth. Multisystem youth with a history of running away, prior child welfare

placements, longer case duration, truancy, gang affiliation, felony charges, or charges against property or persons were less likely to achieve permanency, while those who received child welfare services (e.g., home-based interventions, intensive family therapy, behavioral health services, special economic assistance) had a greater likelihood of achieving permanency (Orsi et al., 2018). Thus, multisystem youth are at risk for poorer life outcomes compared to their peers, but this risk may be mitigated through health- and family-related services. This study intends to extend research on this population (and this specific association) by examining the relation of health and family risks and services on permanency achievement for multisystem youth.

1.4. Specialized Legal Services through Council for Children's Rights

Council for Children's Rights (CFCR) is a 501(c)(3) nonprofit organization that provides direct legal services and advocacy on behalf of children involved in public systems (Council for Children's Rights, n.d.-a). Specifically, three legal teams exist to represent youth in high-conflict custody cases (i.e., custody advocacy program), youth involved in the juvenile court or mental health court system (i.e., juvenile defense team), and youth who require advocacy in other public systems (e.g., public education, child welfare; i.e., individual advocacy team; Council for Children's Rights, n.d.-a). Multisystem youth in this study are represented by the latter teams (i.e., defense team, individual advocacy team; Council for Children's Rights, n.d.-b). In these cases, the CFCR defense team represents youth in juvenile delinquency court, while the CFCR individual advocacy team represents youth in child welfare court proceedings.

In North Carolina, youth involved in juvenile court are automatically considered indigent, a label that indicates an individual does not have the financial means to secure

legal representation (NC Statute § 7A-450). Indigent youth clients in juvenile and child welfare court proceedings are entitled to representation by a public defender at no cost (NC Statute § 7A-451). The defense team at CFCR serves as the juvenile public defender for all youth in Mecklenburg County, North Carolina, though families may also choose to find and pay an attorney to represent a youth in juvenile court. It is notable that the defense attorneys at CFCR have training related to juvenile law and child development. In fact, the defense attorneys at CFCR are the only specialized juvenile defenders in the state of North Carolina who represent youth in court proceedings. In North Carolina's other 99 counties, youth who are charged in juvenile court are represented by the County's Public Defender's Office and, in some counties, public defenders represent both youth and adults. To ensure quality juvenile representation across the state, the North Carolina Office of the Juvenile Defender (OJD) was created in 2005 to provide services, technical assistance, and policy guidance to attorneys who represent youth in delinquency proceedings. OJD works to improve the quality of juvenile defense representation and promote positive change in the juvenile court system, including reducing disparities and ensuring youth receive adequate rehabilitative services (OJD, n.d.).

Client-directed advocacy is a focus of specialized juvenile defense, and CFCR attorneys use this approach to protect children's rights and meet their expressed needs. In addition, specialized juvenile defenders have in-depth knowledge of brain development and juvenile law, which helps them in working to promote fair and just court processes (National Juvenile Defender Center [NJDC], 2016; NJDC, 2014). Moreover, while the defense attorneys at CFCR do not follow a specific evidence-based model, their practices are grounded in holistic representation. Holistic representation aims to consider the

"whole child" by attending to strengths and concerns across multiple domains with the goal of representing expressed interest and providing tools to promote success (Pringle, 2015). In this model, attorneys consider the various factors that brought a child into contact with juvenile court, develop a trusting relationship with their child clients, review records to obtain an accurate and complete social history, and work with child clients to develop a plan to avoid recidivism (Fedders, 2010; National Juvenile Defense Standards, 2013; Polansky, 2015; Pringle, 2015; Thurau & Goldberg, 2013). Holistic models include collaborative, interdisciplinary caseteams with professionals across multiple areas represented (e.g., juvenile delinquency court attorney, child welfare attorney, immigration attorney, social worker, investigator; Pringle, 2015). Based on the child client's expressed interest, caseteams work to investigate and build a case and connect their clients with community-based services (Polansky, 2015). Holistic models require a team that is supportive and responsive to a child, advocates zealously for their expressed interest, and ensures the child client understands what is occurring at each stage. In addition, holistic representation focuses on ensuring that youth are placed in the least restrictive environment possible and they receive appropriate services at and through post-disposition (Thurau & Goldberg, 2013).

In North Carolina, youth in juvenile court may be directly placed into custody of the child welfare system (NC Statutes 7B-1905(a) and 7B-2506(1)(c)). In Mecklenburg County, when youth are concurrently involved with juvenile court and child welfare via this judicial process (i.e., judicial placement), the individual advocacy team at CFCR is appointed by the judge to act as the guardian *ad litem* in the case and represent youth in child welfare proceedings (CFCR, n.d.-b). As the guardian *ad litem*, the attorney is

responsible for safeguarding and protecting the child's welfare (Roth v. Roth, 367 N.E.2d 442, 447, 1st Dist., 1977). In this role, the attorney representative is to work to gain an understanding of multiple domains of the child's life to identify their unique strengths and needs while considering the child's age and cultural background (Snyder & McDaniels, 2000). In addition, working with the child to understand their emotions and needs promotes effective representation (Snyder & McDaniels, 2000).

The CFCR defense team and individual advocacy team work together on cases involving multisystem youth to understand and address youth needs across multiple domains. Specifically, attorneys across teams work together to coordinate implementation of court-ordered services and to assess individualized needs of shared clients. However, statute may occasionally put these teams at odds. The defense team is Constitutionally-bound (under the 14th amendment) to provide expressed interest representation to youth in juvenile court, while the individual advocacy team is required by state statute to represent youths' best interest in child welfare court proceedings. Thus, while the teams work together to ensure that a youth's needs are met, their recommendations occasionally differ because of their representation of expressed versus best interest (e.g., the defense team recommends that the child receives community-based mental health treatment [i.e., expressed interest] while the individual advocacy team recommends a child receives treatment in a residential facility because community-based treatment has not been successful [i.e., best interest]). In addition, because of the differences in representation and their respective legal and ethical guidelines, attorneys across teams cannot share files.

When appointed to represent multisystem youth, the CFCR individual advocacy team employs a client-directed, best interest approach that is consistent with community lawyering, that is, the team of individual advocacy attorneys increases the availability of legal representation in underserved communities while working closely with clients and their larger communities to promote social change (City University of New York School of Law, n.d.). The CFCR individual advocacy team provides advocacy across multiple domains (e.g., family, health, education). For instance, for family services, the team may provide educational information to families to help them navigate the child welfare, educational, mental health, or other public systems. In addition, the team may advocate that families seek out parental education services offered by community partners or more general family outreach related to specific family needs (e.g., housing, transportation, mental health services). Attorneys may also attempt to engage families in case planning and decision-making related to the case.

Although the CFCR individual advocacy team works to advocate on behalf of their child clients and address issues in the family life of multisystem youth, they may be limited in their ability to intervene as a result of multiple factors. For one, because these families are involved with the child welfare system, the family may also have retained their own attorney. In addition, attorneys may be further limited by the nature of their role and its purview within the court system. Specifically, CFCR attorneys may recommend, refer to, or advocate for family-level services but, unlike the judge who presides over the case or the child welfare professional who is authorized to oversee the case, attorneys cannot mandate services to families. While attorneys may be limited in their ability to provide and recommend services to families, family-based services are an

important area of consideration for multisystem youth as research suggests family is a critical point of intervention (Vidal et al., 2019).

The CFCR individual advocacy team may also recommend or facilitate health services for youth by working with the court, managed care organization, Medicaid, and treatment providers to facilitate adequate and appropriate treatment for youth. This process entails establishing that youth have health coverage and collaborating across various entities to ensure services are compliant with court orders.

The CFCR individual advocacy team represents youth in child welfare proceedings and addresses issues across multiple domains of a child's life. Thus, while the children's defense and individual advocacy legal teams collaborate on cases involving multisystem youth, the individual advocacy team is the primary team of interest in this study. Specifically, this study examines the linkages between family and health risks and services and permanency goal achievement, an outcome in child welfare court proceedings that CFCR individual advocacy attorneys have a direct role in shaping.

It bears mention that "services" in this study cover a broad range of actions. Specifically, attorneys may provide services (i.e., help families navigate systems through parent education, engage families in case planning, facilitate youth obtaining Medicaid coverage or the reinstatement of coverage, address placement concerns) or may advocate for services (i.e., family outreach, treatment, placement). Thus, youth in this study receive support, advocacy, and facilitation of services related to family and health through their attorneys. For ease and efficiency of language, this study refers to the attorneys' facilitation of services, referral to services, and advocacy for particular services as youth and families "receiving services."

It is also important to note that the multisystem youth represented by the defense and individual advocacy teams at CFCR differ from other populations of multisystem youth. Youth represented by CFCR attorneys have been placed into the child welfare system by a juvenile court judge via a local process governed by a state statute and, thus, bypass the child welfare investigation stage. In practice, attorneys report differential treatment (e.g., services, placements) for this population of multisystem youth. For instance, by some attorneys' accounts, some child welfare professionals convey these youth are not "their" responsibility but, rather, the responsibility of the juvenile court system. In addition, youth who are placed into the custody of the child welfare system via juvenile court tend to be older and, by nature of their multisystem involvement, have delinquency charges, factors which have negative implications for placement and services. For instance, research shows that older youth and youth with a juvenile court history are more likely to be placed within congregate care settings and are more likely to experience placement instability (e.g., Herz et al., 2019; Herz et al., 2010; Ryan et al., 2008). In addition, some local service providers will not work with child welfare-involved youth who have current or previous involvement in juvenile court, which reduces the types of potential supports youth may receive.

Beyond issues at the local-level with service providers and placements, this population of multisystem youth is unique and their needs may not be fully understood. Multisystem youth tend to be a hidden population in general, and the most common pathway for their multisystem involvement reflects initial contact with the child welfare system and subsequent cross over to concurrent involvement with the juvenile court system (Abbott & Barnett, 2016; Hirsch et al., 2018; Herz et al., 2010). This study

focuses on youth who follow a different path for their dual system involvement; they have become multisystem involved through a specific process used in North Carolina that begins in juvenile court. While, relative to the larger population of multisystem youth, fewer youth have concurrent multisystem involvement that begins in juvenile court and, as such, results from this study may have more limited generalizability, this study highlights a vulnerable population of youth who have been largely excluded from the research base. Moreover, this study helps to underscore the need to examine the effects of state and local policies on the treatment of different populations of multisystem youth.

1.5 The Present Study

Multisystem youth are an understudied population (Baglivio et al., 2016; Behrendt-Mihalski & Kilmer, 2021; Herz et al., 2019; Herz et al., 2006; Herz et al. 2010; Vidal et al., 2019). Additional research is needed to understand how risks and service provision for multisystem youth impact system and life outcomes. Although a recent study assessed educational risks and services (Behrendt-Mihalski & Kilmer, 2021), few studies were identified for this review that focus on risks and services across the domains of family and health (Dierkhising et al., 2019; Orsi et al., 2018; Vidal et al., 2019; Yoon et al., 2021). This study intends to address gaps in the literature by examining the role(s) of family and health risks and services on permanency goal achievement for multisystem youth. In addition, this study aims to assess differences in family and health risks by gender and their association with permanency outcome.

This study is guided by the following questions focused on family-level factors:

1. What is the nature of the relation between family risks and services for multisystem youth?

H_1: Youth will experience a greater number of family risks compared to family services received.

I predicted youth would experience a higher absolute number of family risks compared to the number of tracked family services because multisystem youth have high rates of exposure to family risks (e.g., violence in the home, maltreatment) but few family services exist to support these youth and families. In this study, services received refers to the provision of services, advocacy for services, and referral to services (e.g., parent education through assistance navigating public systems, referral to transportation assistance service).

2. Does the provision of family services mediate the relation between family risk and permanency outcomes?

   H_2: Provision of services will mediate the relation between family risks and permanency outcomes such that experiencing fewer family risks and receiving greater family services will be associated with achieving the permanency goal.

   I predicted the number of family services received by a family would mitigate the relation between the number of family risks experienced and youth achieving their permanency goal because a higher number of services received that address multiple facets of family life (e.g., assistance navigating public systems, referral to external services) should impact the relation between presence of family risks and permanency goal achievement.

3. Are there differences in the number of family risks and services experienced by multisystem boys and girls?

H_3: Girls will experience more family risks and receive fewer family services compared to boys.

I predicted girls would experience a higher number of family risks compared to boys because girls are more likely to experience polyvictimization and complex trauma in their families; however, I predicted girls would receive fewer family services because girls are often underserved in the child welfare and juvenile court systems.

4. Are there differences in the number of family risks and services experienced by multisystem youth who reach their permanency goal compared to multisystem youth who age out?

   H_4: Youth who age out will experience greater family risks and receive fewer family services compared to youth who achieve their permanency goal.

   I predicted youth who age out would experience a higher number of family risks and receive fewer family services compared to youth who achieve their permanency goal because youth who age out tend to have a high level of unaddressed family needs and less stability, which suggests youth who age out experience high levels of risk and low levels of services.

In addition, this study tests the following questions focused on health-related factors:

5. What is the nature of the relation between health risks and services for multisystem youth?

   H_5: Youth will experience greater number of health risks compared to health services received.

I predicted youth would experience a higher number of health risks compared to health services because multisystem youth have high rates of health risks (e.g., Medicaid disruptions, mental health diagnoses) but tend to receive inadequate levels of service. In this study, services received refers to the provision of services, advocacy for services, and referral to services (e.g., facilitate youth obtaining Medicaid or the reinstatement of Medicaid coverage, advocating for treatment).

6. Does the provision of health services mediate the relation between health risk and permanency outcomes?

   H_6: Provision of services will mediate the relation between health risk and permanency outcomes such that experiencing fewer health risks and receiving greater health services will be associated with achieving the permanency goal.

   I predicted the number of health services received by a family would mitigate the relation between the number of health risks experienced and youth achieving their permanency goal because a higher number of services received that address multiple facets of health (e.g., facilitating Medicaid coverage, advocating for treatment, addressing placement concerns) should impact the relation between presence of health risks and permanency goal achievement.

7. Are there differences in the number of health risks and services experienced by multisystem boys and girls?

   H_7: Girls will experience fewer health risks and receive fewer health services compared to boys.

   I predicted girls would experience a lower number of health risks and receive fewer health services because girls tend to exhibit fewer visible mental health risks (e.g.,

internalizing behaviors) which may contribute to lower rates of health risk identification as well as service provision.

8. Are there differences in the number of health risks and services experienced by multisystem youth who reach their permanency goal compared to multisystem youth who age out?

   H_8: Youth who age out will experience greater health risks and receive fewer health services compared to youth who achieve their permanency goal.

   I predicted youth who age out would experience a higher number of health risks and receive fewer health services compared to youth who achieve their permanency goal because youth who age out tend to have a high level of unaddressed mental health needs, suggesting that youth who age out experience high levels of risk and low levels of services.

CHAPTER 2: METHOD

2.1 Data Sources and Sample

This study used administrative data from a nonprofit organization that provides legal representation and advocacy to youth in the public school system, family court, child welfare, juvenile court, and mental health court in Mecklenburg County, North Carolina. Data were collected by legal advocates primarily for case management and grant reporting purposes. Attorneys from the organization represent youth in each system separately as well as a group of multisystem youth. In addition, in the county youth were served, one family court judge presides over both juvenile court and child welfare court proceedings, using a "one family, one judge" approach. In contrast, in many other jurisdictions in North Carolina and across the country, juvenile court and child welfare proceedings are conducted through separate court processes and judges across systems may not interact (North Carolina Judicial Branch, n.d.-b).

Multisystem youth represented under the organization's service purview are concurrently involved in the juvenile court and child welfare systems through North Carolina state statute 7B-1905(a) or 7B-2506(1)(c). Under 7B-1905(a), a juvenile court judge places youth into the custody of child welfare while youth have an open delinquency case. This process is used for youth who have a history of running away, or when it is deemed that nonsecure custody (i.e., foster care) is preferable to secure custody (i.e., detention). Specifically, judges may place youth in nonsecure custody to facilitate youths' access to Medicaid coverage and health services. Under 7B-2506(1)(c), youth are placed into the custody of child welfare at the time of the juvenile court case disposition.

In this circumstance, youth may enter nonsecure custody due to a need for adequate care and supervision or a need for placement (i.e., youth cannot return home). Multisystem youth served under these aforementioned statutes are the focus of this study. Study procedures were approved by the UNC Charlotte Institutional Review Board.

A total of 79 multisystem youth who were represented by the nonprofit's specialized legal team, reflecting cases that were closed between January, 2012 and January, 2021, were represented in the sample. Participants were excluded from analysis in instances in which youth were later found to be ineligible for service under state statute (n = 4) or in one instance in which a case was closed due to youth fatality (n = 1). A final sample of 74 youth were included in this study.

Of the 74 multisystem youth included in analysis, 67.6% (n = 50) were boys. In terms of race/ethnicity, 77.0% (n = 57) of youth in the study were Black, 5.4% (n = 4) were Latinx, 6.8% (n = 5) were multiracial, 8.1% (n = 6) were White, and 2.8% (n = 2) identified with other racial or ethnic backgrounds (i.e., Native American, other). Age at the time of case open ranged from 7 to 17 years and, on average, youth were 14.72 years old (SD = 1.48).

2.2. Measures

2.2.1. Demographics and Case Characteristics. In this study, demographic variables include age at case open, race/ethnicity, and gender. Case characteristic data reflect the number of days a youth's case was open.

2.2.2. Family Risk Factors. Family risk factors reflect the number of risks identified in a youth's family. Two family risk factors were tracked and are available in the dataset: child protective services report made while the case was open (i.e., legal

advocate filed report with child protective services alleging abuse, neglect or dependency after child became child welfare-involved) and domestic violence (i.e., child witnessed domestic violence).

2.2.3. Health Risk Factors. Health risk factors reflect the number of health risks identified in a case. Health risk factors available in the dataset are: youth needs Medicaid (i.e., youth is eligible for Medicaid but is not currently receiving it), youth has at least one mental health diagnosis (up to three), and youth needs placement (i.e., experience placement instability, needs therapeutic placement).

2.2.4. Family Services. Family services reflect the number of family services for the youth or their family that were provided by or advocated for by the legal team. Family services available in the dataset are family engagement (i.e., services to promote parent participation in the case), parent education (i.e., education services to support effective parenting or assistance in navigating a public system), and advocacy for family outreach (i.e., referral to a specific service, such as housing program, transportation assistance, or mental health treatment). Family outreach reflects referral to a service, but data distinguishing the service type are unavailable.

2.2.5. Health Services. Health services reflect the number of health-related services provided to a youth, for which the youth was referred, and/or advocated for by their legal advocate (labeled as services received). Health services available in the dataset are: assisted with Medicaid issue (i.e., facilitated youth obtaining Medicaid coverage or the reinstatement of Medicaid coverage), advocated for treatment (i.e., advocated to court for health services), advocated for compliance with treatment plan (i.e., advocated to court and service providers for compliance with service definition and/or proper

procedures), addressed placement concerns (i.e., secured appropriate services in placement), and advocated for appropriate placement transition (i.e., advocated to court for move to appropriate placement and/or continuity in services and providers after transition).

2.2.6. Achievement of Permanency Goal. The dependent variable in this study reflects whether the youth's permanency goal (i.e., reunification with family, legal guardianship, adoption) was achieved. Permanency goals were determined by youth and their legal advocate depending on each youth's specific circumstances and aims. The permanency variable was dichotomous – youth who achieved their desired outcome are categorized as "Goal Achieved," while youth who aged out, had their cases dismissed, or otherwise did not achieve their desired permanency outcome (i.e., transferred to adult court, AWOL, no longer under jurisdictional control) at case closure are categorized as "Goal Not Achieved." The archival dataset does not include the specific reason for youth not achieving their permanency goal; however, it does include a variable that indicates if the youth aged out of the system, which facilitated comparison of youth who achieved their permanency goal and youth who aged out.

CHAPTER 3: ANALYTIC APPROACH

To determine the sample size needed to address the study's aims, I conducted a power analysis using G*Power 3.1.9.6. Results revealed that 107 participants are needed to obtain adequate power to detect a medium effect size (.15) in a fixed model linear multiple regression examining the deviation from zero in R^2 with two predictors (Erdfelder et al., 1996). To detect a large effect size (.35) in the same model, a sample of 48 participants is necessary. Thus, the present sample size enables detection of a large effect but will be underpowered to detect smaller effects. Notably, a recent examination of the role of educational risks and services in permanency achievement for multisystem youth was similarly underpowered and found significant results (Behrendt-Mihalski & Kilmer, 2021).

This study examines the role of family- and health-related risks and services on permanency for multisystem youth. In addition, differences between groups (i.e., gender, youth who age out compared to youth who achieve permanency goal) were assessed. While race and the intersection of race and gender may affect risks and service provision for multisystem youth – and would hold relevance, given this study's larger goals – the sample size and limitations in subsequent group sizes preclude analysis focused on race or the intersection of race and gender. I used descriptive statistics, bivariate correlations, mediated linear regression, and means testing to depict, assess, and understand the relations among risks, services, and achievement of permanency goal for multisystem youth. Specifically, I examined risks and services in the domains of family and health.

Descriptive statistics were run to examine youth demographics (i.e., race/ethnicity, gender, age), case characteristics (i.e., number of days case was open), and key variables of interest (i.e., family risks, family services, health risks, health-related services). Descriptive statistics were used to examine the nature of the relation between the number of risks and services across the domains of both family and health. Results indicating that youth experience more family risks compared to the number of family services and more health risks compared to the number of health services would support my hypothesis.

Next, bivariate correlations were conducted to understand the relations among key variables (i.e., demographics, case characteristics, family risks, family services, health risks, health services, achievement of permanency goal) before conducting linear regressions.

Although logistic regression is often conducted in studies examining multisystem youth using administrative data and studies examining dichotomous dependent variables (Kim et al., 2020; Ryan et al., 2007; Ryan & Testa, 2005; Wright et al., 2020; Yoon et al., 2021), research has demonstrated the appropriateness of linear regression (Hellevik, 2009). Hellevik (2009) suggests linear and logistic regression yield similar results and that there are certain situations in which logistic regression is appropriate. Specifically, he asserts that logistic regression should be used when examining change in a dependent variable over time, dependent variables for which the value of interest is rare (e.g., the potential effect of a drug on skin cancer development), or dependent variables that have a fixed overall distribution. Hellevik (2009) further contends that linear regression is more appropriate for other situations in which a dichotomous dependent variable is present. As

such, I employed the Baron and Kenny (1986) approach to mediated regression, which was used in a recent examination of educational risks and services for multisystem youth (Behrendt-Mihalski & Kilmer, 2021). Given that logistic regression is more typically viewed as appropriate for analysis involving dichotomous dependent variables, I also ran two supplementary logistic regressions so that it would be possible to compare and note any differences in the results. These logistic regression analyses are summarized in Appendix A.

In this study, two linear mediated regressions were conducted to examine the role of risks and services related to family and health on permanency achievement for multisystem youth. Specifically, in the models, risks served as the predictors and services the mediators. In the first linear mediated regression, the model included the number of family risks (e.g., domestic violence) identified in a case as the predictor and the number of family services received (e.g., parent education) as the mediator. The model used achievement of the youth's permanency goal as the outcome (see Figure 2). Using Baron and Kenny's four-step method, I first entered the number of family risks predicting youth permanency goal achievement. In the second step, I entered family risks predicting family services. In the third step, I entered family services predicting youth permanency goal achievement. In the final step, I entered family risks and family services predicting youth permanency goal achievement. In the first three steps, I expected family risks to be negatively related to permanency goal achievement (i.e., youth with lower levels of family risks achieved their permanency goal at higher rates), family risks and services to be positively related (i.e., youth with higher levels of family risks received more services), and family services to be positively related to permanency goal achievement

(i.e., youth who received more family services achieved their permanency goal at higher rates). Results that align with my hypothesis would demonstrate a mediation such that the first three steps show significance and, in the fourth step, family risk is no longer significant, while family services remain a significant predictor of youth permanency goal achievement (i.e., family risk level did not predict permanency achievement for youth but receiving family services remained a predictor of permanency achievement).

In the second linear mediated regression examining the role of health risks and services on permanency, the structurally-similar model included the number of health risks (e.g., presence of mental health diagnosis) identified in a case as the predictor and the number of health services received (e.g., advocacy for treatment) as the mediator. The outcome was achievement of permanency goal (see Figure 3). In the first of four steps, I entered the number of health risks predicting youth permanency goal achievement. In the second step, I entered health risks predicting health services. In the third step, I entered health services predicting youth permanency goal achievement. In the final step, I entered health risks and health services predicting youth permanency goal achievement. In the first three steps, I expected health risks to be negatively related to permanency goal achievement (i.e., youth with fewer health risks achieved their permanency goal at higher rates), health risks and services to be positively related (i.e., youth with more health risks received more health-related services), and health services to be positively related to permanency goal achievement (i.e., youth who received more health-related services achieved their permanency goal at higher rates). Results aligning with my hypothesis would demonstrate a mediation such that variables in the first three steps were significant predictors and, in the final step, health risk is no longer significant, while health services

remained a significant predictor of youth permanency goal achievement (i.e., health risk did not predict permanency achievement for youth but receipt of more health-related services predicted permanency achievement).

Means testing was used to assess differences in risks and services across family and health domains for boys and girls as well as youth who age out compared to youth who achieve their permanency goal. Specifically, eight independent samples *t*-tests were conducted. The first set examined differences in family risks and services between boys and girls. Results that align with my hypothesis would demonstrate that, in the first analysis, girls experienced more family risks compared to boys but, in the second *t*-test, girls received fewer family services compared to boys. The next set of independent samples *t*-tests assessed differences in health risks and services between boys and girls. Results that support my hypothesis would show that, in the first *t*-test, boys experienced more health risks compared to girls and, in the second analysis, boys received more health services compared to girls. The next set of two independent samples *t*-tests assessed differences in family risks and services for youth who aged out compared to youth who achieved their permanency goal. Results supporting my hypothesis would reveal that, in the first analysis, youth who aged out experienced greater family risks compared youth who achieved their permanency goal but, in the second *t*-test, youth who aged out received fewer family services compared to youth who achieved their permanency goal. The final set of independent samples *t*-tests assessed differences in health risks and services for youth who aged out compared to youth who achieved their permanency goal. Results supporting hypothesis would show that, in the first *t*-test, youth who aged out experienced more health risks compared to those who achieved their

permanency goal but, in the second analysis, youth who aged out received fewer health services compared to youth who achieved their permanency goal.

CHAPTER 4: RESULTS

4.1. Descriptive Statistics

Descriptive statistics for the demographics and case characteristics for the 74 multisystem youth included in the final sample are presented in Table 1. Case duration (i.e., number of days from case open to case close) ranged from 10 days to 2,451 days, with youth being served for an average of 515.82 days (SD = 480.32). At case closure, 52.7% (n = 39) of youth had achieved their permanency goal of reunification, guardianship, or adoption. Youth who did not achieve their permanency goal either aged out, were transferred to adult court, were no longer under jurisdictional control (e.g., family moved), or were AWOL at the time of case closure. In this sample, 18.9% (n = 14) of youth aged out of the child welfare system and did not achieve their permanency goal.

Preliminary bivariate correlations were computed to understand the relation between demographics, case characteristics, and key variables (see Table 2). Gender was correlated with health risks such that girls were less likely to have health risks identified, r (74) = -.25, p < .05. Race was correlated with age at case open, r (74) = -.29, p < .05, such that Black youth were more likely to be involved with multiple systems at older ages. Correlations showed a significant positive relation between family risks and services, r (74) = .33, p < .01; that is, youth with more family risks also tend to receive more family services. Health risks were also significantly related to health services, r (74) = .72, p < .001, with a greater number of risks associated with the report of more health-related services. In addition, health risks were positively associated with family risks, r

(74) = .33, $p < .01$, and family services, r (74) = .52, $p < .001$, and family services were significantly related to health services, r (74) = .47, $p < .001$. Achievement of permanency goal was significantly associated with health risks, r (74) = .24, $p < .05$, and family services, r (74) = .46, $p < .001$, but not family risks, r (74) = .05, $p = .68$, or health services, r (74) = .15, $p = .21$.

4.2. Nature of Family Risks and Services

Youth in this sample experienced a greater number of family services compared to family risks (see Table 2). Thus, my hypothesis was not supported: youth did not experience a greater number of family risks compared to the number of services received (i.e., services provided or referred to by legal team) and, instead, more family services were recommended compared to the number of family risks identified.

A circumscribed number of risks was tracked by CFCR staff. Based on those indicators, youth in this sample did not experience a high number of family risks. Specifically, two potential family risks were identified and tracked for multisystem youth (i.e., CPS report made, domestic violence) and, on average, youth experienced 0.31 family risks (SD = .50). A sizable majority of youth in the sample, 70.3% or 52 youth, had zero family risks identified, 28.4% (n = 21) had one family risk identified, and 1.4% (n = 1) had two family risks identified (see Table 3). Specifically, 4.1% (n = 3) multisystem youth in this sample had child protective services reports filed while they were in custody and 27.0% (n = 20) of these youth had witnessed domestic violence (see Table 4).

Up to three family services could be received (i.e., parent education, parent engagement, family outreach) in a case. On average, 1.27 family services were

recommended (*SD* = .98) for multisystem youth in this sample – 31.1% (*n* = 23) of youth received zero family services, 17.6% (*n* = 13) received one family service, 44.6% (*n* = 33) of youth received two family services, and 6.8% (*n* = 5) of youth received all three family services (see Table 3). In this sample, 54.1% (*n* = 40) of families received parent education services and 60.8% (*n* = 45) received family engagement services (see Table 4), and these services were provided regardless of family risk level (see Table 5).

4.3. Nature of Health Risks and Services

Multisystem youth in this sample experienced a moderate level of health risks and received (i.e., services provided or advocated for by legal team) a fewer number of absolute services than the reported risks (see Table 2). Thus, my hypothesis was supported: youth in the sample experienced a greater number of health risks compared to health services received.

Five potential health risks were identified and tracked (i.e., up to three mental health diagnoses, needs Medicaid, needs placement). Youth were identified as having zero to five health risks (*M* = 2.74, *SD* = 1.49) – 13.5% (*n* = 10) of youth had zero health risks identified, 9.5% (*n* = 7) had one health risk identified, 10.8% (*n* = 8) had two health risks identified, 27.0% (*n* = 20) had three health risks identified, 33.8% (*n* = 25) had four health risks identified, and 5.4% (*n* = 4) of youth had five health risks identified (see Table 3). Of those risks, analysis revealed that 81.1% (*n* = 60) of the multisystem youth in this sample had at least one mental health diagnosis and 68.9% (*n* = 51) experienced placement instability (see Table 4).

Youth in this sample could receive up to five health services provided by their legal advocate (i.e., treatment advocated, compliance with treatment plan advocated,

facilitated Medicaid coverage, addressed placement concerns, advocated for appropriate placement transition). Youth in the sample received zero to four health services (M = 1.73, SD = 1.20) – 24.3% (n = 18) of youth received zero health services, 9.5% (n = 7) received one health service, 40.5% (n = 30) received two health services, 20.3% (n = 15) received three services, and 5.4% (n = 4) of youth received four health services. While five potential health services were available, no youth in the sample received all five services (see Table 3). In this sample, 75.7% (n = 56) of youth received advocacy related to treatment (this treatment was often for mental health but could also be related to physical and sexual health), 56.8% (n = 42) received advocacy related to appropriate placement transitions, 23.0% (n = 17) had their placement concerns addressed, 9.5% (n = 7) had Medicaid coverage obtained or reinstated, and 8.1% (n = 6) received advocacy related to treatment compliance (see Table 4). In addition, a deeper examination of the experience of health risks and services by type showed youth with mental health diagnoses and placement instability tended to receive advocacy related to treatment and placement (see Table 6).

4.4. Mediating Role of Family Services on the Relation between Family Risks and Permanency

The linear multiple regression indicated the relationship between family risk and achieving desired permanency goals was not mediated by family services (see Figure 2). First, the number of family risks present did not predict youth permanency goal achievement, $F(1,72)=0.169$ p = .68; R^2 = .002. While that step was not significant, the number of family risks present predicted the number of family services provided, $F(1,72)=8.916$, $p < .01$; R^2 = .110, and, in the next step, the number of family services

provided predicted youth permanency goal achievement, $F(1,72)=18.914$, $p < .001$; $R^2 = .208$. Finally, the number of family risks present and number of family services provided were entered simultaneously, and the model predicted youth permanency goal achievement, $F(2,71)=10.011$, $p < .001$; $R^2 = .220$; $\Delta R^2 = .218$. However, results did not show a mediation (Baron & Kenny, 1986), as the number of family services provided remained significant in this step, while the number of family risks present was not significant at any step of the analysis (see Table 7; Figure 2 summarizes these results). In other words, youth who were provided more family services were more likely to achieve their permanency goal, but family services did not mediate the relation between family risk and permanency. Thus, my hypothesis was partially supported.

4.5. Mediating Role of Health Services on the Relation between Health Risks and Permanency

The linear multiple regression indicated the relationship between health risk and achieving desired permanency goals was not mediated by health services (see Figure 3). First, the number of health risks present predicted youth permanency goal achievement, $F(1,72)=4.322$, $p < .05$; $R^2 = .057$. Next, the number of health risks present predicted the number of health services provided, $F(1,72)=77.870$, $p < .001$; $R^2 = .520$. Then, the number of health services provided did not predict youth permanency goal achievement, $F(1,72)=1.633$, $p = .21$; $R^2 = .022$. Finally, the number of health risks present and number of health services provided were entered to predict youth permanency goal achievement, $F(2,71)=2.174$, $p = .12$; $R^2 = .058$; $\Delta R^2 = .001$. Results did not show a full mediation (Baron & Kenny, 1986). That is, provision of health services did not predict permanency

goal achievement or affect the relation between health risks and permanency (see Table 8; Figure 3 summarizes these results). Thus, my hypothesis was not supported.

4.6. Risks and Services between Genders

Boys and girls experienced different levels of risks and services by type (see Table 9). In this sample, boys experienced more absolute family risks (M = .32, SD = .51) and were referred for more family services (M = 1.34, SD = 1.00) compared to girls (M = .29, SD = .46; M = 1.13, SD = .95). However, two independent samples t-tests revealed that the differences between genders were not significant for either family risks ($t(72)$ = .229, p = .82; see Table 10) or family services ($t(72)$ = .879, p = .38; see Table 11). Thus, my hypothesis was not supported: girls did not experience more family risks compared to boys and, while girls received fewer family services compared to boys, this difference was not significant.

Boys in this sample also experienced more absolute health risks (M = 3.00, SD = 1.34) and were referred for more health services (M = 1.88, SD = 1.17) compared to girls (M = 2.21, SD = 1.67; M = 1.42, SD = 1.21). Independent samples t-tests revealed that boys experienced significantly more health risks compared to girls ($t(72)$ = 2.194, $p <$ .05; see Table 12); but that the difference in health services referrals for boys and girls was not significant ($t(72)$ = 1.574, p = .12; see Table 13). Thus, my hypothesis was partially supported: girls experienced fewer health risks and received fewer health services compared to boys; however, the difference in health services was not significant.

4.7. Risks and Services between Youth who Achieve their Permanency Goal and Youth who Age Out

In this sample, 39 youth achieved their permanency goal, and 14 youth aged out of the child welfare system. The other 21 youth in the sample did not age out or achieve their permanency goal, but system contact ended under other circumstances (e.g., child AWOL, child transferred to adult criminal court). Analyses were conducted with the sample of 53 youth who ended system contact via permanency or aging out to determine if youth with varying permanency outcomes experienced differential risks and services across the domains of family and health. Between these permanency outcomes, youth experienced different levels of risks and services by type (see Table 14). Specifically, youth who aged out experienced a higher number of family risks (M = .64, SD = .63) and received fewer family services (M = 1.43, SD = 1.02) compared to youth who achieved their permanency goal (M = .33, SD = .48; M = 1.69, SD = .69); however, independent samples t-tests revealed the differences were not significant between youth who age out and youth who achieve their permanency goal for family risks ($t(51) = 1.904$, p = .06; see Table 15) or services ($t(17.549) = -.899$, p = .38; see Table 16). Thus, while the total number of family risks and services by permanency outcome aligns with my prediction, my hypothesis was not supported: youth who aged out did not experience significantly more family risks or receive significantly fewer family services compared to youth who achieved their permanency goal.

In regards to health risks and services, youth who aged out experienced more risks (M = 3.79, SD = .80) and services (M = 2.50, SD = .86) compared to youth who achieved their permanency goal (M = 3.08, SD = 1.09; M = 1.90, SD = 1.05). Two independent samples t-tests revealed youth who aged out experienced significantly more health risks compared to youth who achieved their permanency goal and the difference in health

services ($t(51) = 2.229$, $p < .05$; see Table 17) trended toward significance ($t(51) = 1.932$, $p = .06$; see Table 18). Thus, my hypothesis was partially supported: compared to youth who achieved their permanency goal, youth who aged out experienced greater health risks but did not receive fewer health services.

CHAPTER 5: DISCUSSION

This study examined multisystem youths' experience of risks and services across the domains of family and health for youth served by a specialized legal team. The legal team representing youth in child welfare proceedings employs a holistic approach in their work to address issues for multisystem youth, particularly in the areas of family, health, and education. While the legal team attends to multiple domains of a child's life, they are limited in their reach and impact because parents may have their own representation in child welfare proceedings and there are limited services available. Specifically, attorneys can help facilitate Medicaid coverage, advocate for physical or mental health treatment, recommend family-level services, advocate for youth placement supports, and provide educational advocacy and supports. That said, they cannot mandate services for youth and families. Furthermore, while these services may address multiple salient family- and child-level issues, services are not available to support all family needs and are not tied to financial supports.

Nevertheless, working with a specialized legal team can contribute to action such that youth needs across multiple domains can be addressed. Previous research points to the positive impact of specialized legal representation for multisystem youth in juvenile delinquency proceedings (Herz et al., 2010). Herz and colleagues (2010) examined multisystem youths' experience of challenges across education, placement, and health and how these experiences impacted juvenile court trajectory and recidivism. The present study builds on the existing literature by examining the impact of specialized legal representation focused on issues across the domains of family and health and their impact

on permanency goal achievement for multisystem youth. Specifically, this study contributes to the literature by examining provision of services based on the level of risk identified for multisystem youth across the domains of family and health. Moreover, the results from this study may help us understand which services mitigate risk for multisystem youth and promote permanency and, thus, foster greater stability for multisystem youth going forward. Such findings can inform practice to better support multisystem youth.

In this study, I examined risks and services for multisystem youth across the domains of family and health and sought to understand the (1) nature of risks and services; (2) potential mediating role of services on the relation between risk and achievement of permanency goal; (3) differences in experience of risks and services between boys and girls; and (4) differences in the experience of risks and services between youth who age out and those who achieve their permanency goal. In the following sections, I review the findings and discuss them in relation to the study objectives and broader literature base.

5.1. Review of Findings

The examination of the nature of risks and services across the domains of family and health for multisystem youth revealed that, in contrast to my hypothesis, youth received more family services compared to family risks experienced. For health-related risks and services, youth experienced more risk compared to services received, which supported my hypothesis.

The examination of the role of services on the relation between risk and permanency goal achievement did not reveal a mediation in the domains of either family

or health. Thus, my hypotheses were not supported. Of note, youths' experience of family risk did not relate to achievement of permanency goal in any step of the model, but family services remained significant in the final model, which points to the strong relation between family services and multisystem youths' achievement of their permanency goal.

Analyses examining the difference in the number of family risks and services experienced by boys and girls showed that, even though boys experienced more family risks and services compared to girls, the differences were not significant and, thus, my hypothesis was not supported. Boys also experienced significantly more health-related risks than girls, but their referrals for health-related services were not significantly different from those of girls, which partially supports my hypothesis that girls would experience fewer health-related risks and services.

In testing the difference in the number of family risks and services for youth who aged out compared to those who achieved their permanency goal, I found youth who aged out of the system did not experience significantly more family risks and did not receive significantly fewer services compared to youth who achieved their permanency goal. Thus, my hypothesis was not supported. In my examination of health-related risks and services for youth who aged out compared to those who achieved their permanency goal, my hypothesis was partially supported as youth who aged out experienced significantly more health risks. Contrary to my hypothesis, youth who aged out received more health services, and this difference trended toward significance.

5.2. Multisystem Youths' Experiences of Family Risks and Services

Youth in this sample experienced more family services than family risks. Legal advocates tracked two potential family risks (i.e., child protective services report made while case was open, child previously witnessed domestic violence) and three family services (i.e., parent education, family engagement, family outreach). Although a very limited number of family risks were tracked, youth in this sample experienced those risks infrequently, with over two-thirds of the sample experiencing neither of the tracked family risks.

While youth in this sample experienced a low level of total family risk (at least of those risks assessed here), it is important to note that multisystem youth tend to experience a high level of risk in their families and neighborhoods as well as harsher treatment within public systems (e.g., child welfare, juvenile court, public education; see Abbott & Barnett, 2016; Haight et al., 2014; Herz et al., 2010; Huang et al., 2012; Ryan et al., 2007). To that end, it is crucial to consider the potential effects related to the two risks documented by program staff, i.e., child welfare re-reports and witnessing domestic violence. Data in this study reflect child protective services reports made by legal representatives in circumstances in which youth were in danger, which was rare and occurred in less than 5% of cases. That said, a report filed while a case is open suggests that abusive or neglectful behavior is continuing even though a family is involved with child welfare, which speaks to noteworthy continued risk for those youth. It bears mention that a child protective services report can also be filed in relation to a dangerous situation within a child welfare placement (i.e., not with the family of origin), but the available data did not detail the cause of the report. In another study of multisystem youth, over. Prolonged experience of childhood maltreatment and stress is related to

worse physical and mental health (Adams & Lehnert, 1997; Glaser, 2000; Middlebrooks & Audage, 2008). Thus, it is critical to disrupt abuse and mitigate its negative effects (i.e., through service provision).

In the present sample, over one-fourth of the multisystem youth reported to their legal advocate that they had witnessed domestic violence. Domestic violence, also known as intimate partner violence, is typically a chronic or ongoing adversity (Evans et al., 2008). The relative frequency of this risk for the multisystem youth in this sample may have important implications for system and life outcomes. Specifically, the literature suggests that youth who witness domestic violence are more likely to experience child welfare system contact, have deeper involvement in the system, and cross over to multisystem involvement (see Cheng, 2010; Herz et al., 2010; Ryan et al., 2013). Youth who witness and experience violence in their home are also more likely to perpetrate violence, which may lead to involvement in the criminal court system or intergenerational contact with the child welfare system (see Evans et al., 2008; Forke et al., 2019; Maas et al., 2008; Meltzer et al., 2009). Beyond worse system-related outcomes, youth who are exposed to domestic violence also have worse life outcomes. For instance, witnessing domestic violence in childhood is related to the development of behavioral and emotional problems in adulthood as well as increased risk for experiencing emotional, physical, and sexual abuse later in life (Holt et al., 2008). In addition, youth who witness violence in their homes are more likely to exhibit externalizing and internalizing symptoms in childhood and experience mental health issues (Evans et al., 2008; Forke et al., 2019; Meltzer et al., 2009). Thus, exposure to domestic violence appears to be a relatively common risk factor and, without

intervention, may contribute to more negative adjustment trajectories and promote poor outcomes for child welfare-involved and multisystem youth.

The fact that more than two-thirds of youth in the sample received at least one family-related service (despite the relatively low levels of family risks reported) suggests that the youth and their families received services for reasons beyond what was tracked in the program's dataset. This incongruity suggests there was a higher level of family need than recorded. Given that youth in this sample were placed into the custody of the child welfare system through judicial process in juvenile court, it is reasonable that youth would experience a high level of family-related risk and be in need of services. Family-level risks (e.g., parent experiencing a mental or behavioral health concern, parent with criminal court involvement) have been found to be related to youth system contact (Herz et al., 2010; Ryan et al., 2013; Vidal et al., 2019), but such data were not available for inclusion in this study. Family-level services tracked in this study related to the attorneys supporting families through information sharing and education (e.g., helping parents understand their rights and responsibilities as well as system processes, with the goal of assisting them in navigating the system), increasing family engagement (e.g., obtaining parent perspectives, providing opportunities for them to share their voice), and referring families to external services (e.g., transportation assistance, mental health treatment) but did not include the provision of formalized services.

In this study, over half of the families received parent education services; however, the specific nature of the information shared with families is unknown. That said, services to educate families related to supportive practices and to assist them in navigating systems (e.g., juvenile court, child welfare, education, mental health) may

promote a better understanding of system processes (Cantrell, 2001; Coleman, 2001; Scott, 2017).

In this study, 60% of families received family engagement services. Family engagement services refer to a broad range of activities intended to promote family participation in a case and strengthen relationships between families and system professionals (Cojocaru, 2013; Toros et al., 2018). Family engagement services are intended to increase participation in case planning and decision-making at the child- and family-level (Toros et al., 2018). Because the family setting provides foundational care and support and is critical for youth health and development, family engagement is important, even when youth are placed outside of their home of origin (Rozzell, 2013). In addition, developing partnerships with families can help strengthen familial relationships, which may promote reunification (Fruendlich et al., 2006; Rozzell, 2013). Thus, involving families in case planning may have broader positive implications for family functioning and, in turn, for multisystem youth.

Services tailored to address specific family needs may also be utilized to support families. Some formalized family-level services, like Triple P parent education or Parents Anonymous, address specific family needs with the goal of improving family functioning and reducing family involvement with the child welfare system (The California Evidence-Based Clearinghouse for Child Welfare, 2019; Sanders, 2008; Sanders et al., 2014). Services that address other needs, such as mental health and substance abuse, are also important to consider. In fact, recent policy shifts have prioritized family services (e.g., mental health, substance use, parenting skill classes) as measures to prevent youth from entering the foster care system (Kelly, 2018). While participation in formalized

family-level intervention was not tracked and could not be included in the present analysis, it is important to note that attorneys referred families to formalized services in less than one in eight cases and provided less formal education and engagement services to families in more than half of the cases represented. Thus, overall, families received a moderate level of family-level services to promote family functioning, but few families received family outreach through referral to formalized services to address specific family-level needs.

5.3. Multisystem Youths' Experiences of Health Risks and Services

Youth in this sample experienced more health risks compared to health services received. Legal advocates tracked five potential health risks (i.e., youth needs Medicaid, up to three mental health diagnoses, needs placement) and five potential health services (i.e., facilitated Medicaid coverage, treatment advocated, compliance with treatment plan advocated, addressed placement concerns, advocated appropriate placement transition). These risks and services align with one another: youth who need Medicaid may receive assistance in obtaining or reinstating Medicaid coverage, youth with mental health diagnoses may receive treatment-related advocacy, and youth with placement instability may receive advocacy related to their placement. While youth may have received advocacy services related to treatment and placement, it is unclear if formalized services (and which ones) resulted from the team's advocacy.

In this sample, over four-fifths of youth had at least one mental health diagnosis, and over two-thirds had two or more diagnoses. This finding is consistent with another examination of mental health service use among multisystem youth which found that 71% of youth in need of mental health services had co-occurring disorders (Kim et al.,

2020). Other studies that have focused on youth in the juvenile court or child welfare systems have also found high rates of comorbid diagnoses (Dierkhising et al., 2019; Hussey et al., 2007). Youth in the present sample who had at least one mental health diagnosis received services via advocacy for treatment (76%) and/or advocacy related to compliance with their treatment plan (8%). These findings suggest that many youth in the sample were not receiving any treatment – or adequate mental health treatment – before becoming multisystem involved. In another study, Kim and colleagues (2020) found that 85% of multisystem youth who received mental health services re-entered youth serving systems. Some findings from previous research also suggest that youth did not receive appropriate services (e.g., Dierkhising et al., 2019; Herz et al., 2019; Herz et al., 2010; Lee & Villagrana, 2015; Orsi et al., 2018; Vidal et al., 2019), which highlights the importance of advocates for these youth who can work to ensure youth receive adequate and appropriate mental health services.

In this sample, eight youth experienced issues with Medicaid, and five had those issues addressed and received coverage; two other youth without documented Medicaid issues also received assistance obtaining or reinstating coverage. Youth in this sample were categorically entitled to Medicaid coverage. That is, because youth are in the custody of the child welfare system, they are covered by Medicaid (Raghavan et al., 2016). In addition, North Carolina judges may place youth into the custody of child welfare during delinquency proceedings in order to facilitate healthcare coverage and services (NC GS 7B-1905(a)). Medicaid covers a broad range of services for youth related to physical, mental, and dental health as well as vision. Healthcare coverage and access to services through Medicaid promotes current and long-term health (Acoca et al.,

2014). However, multisystem youth may face issues with obtaining and maintaining health coverage because of multiple barriers or challenges. For instance, many youth in the custody of child welfare experience coverage disruptions due to placement changes (Raghaven et al., 2016). In addition, because Medicaid funds cannot be spent on services for youth placed in secure custody of the juvenile or criminal court system (42 CFR § 435.1009 and 42 CFR § 435.1010; Hanlon et al., 2008), many multisystem youth are limited in their access to care. Lapses in Medicaid coverage and access to services is particularly detrimental for youth who are detained or incarcerated in juvenile court facilities as these youth tend to experience complex health needs and continuity of care is critical (Acoca et al., 2014). The present effort helps to illustrate the issues faced by some multisystem youth in obtaining and maintaining Medicaid as over 10% of youth in this sample experienced issues with Medicaid, and 63% of those youth received assistance obtaining or reinstateing Medicaid coverage. Even though a small number of youth were identified as experiencing issues with Medicaid, this challenge is salient because it is likely that those youth experienced lapses in healthcare coverage, a circumstance which previous research suggests exacerbates emotional and mental health issues (Abbott & Barnett, 2016). Thus, facilitating Medicaid coverage and ensuring continuity in care is a potential mechanism for practitioners to promote positive outcomes (and reduce negative consequences) for multisystem youth. In addition, this study's findings have implications for policy change – that is, they help underscore the need to ensure that this vulnerable population of youth retains health coverage while system-involved.

Inadequate and unstable placements are another important consideration for youth in child welfare custody. Multisystem youth with a history of prior child welfare

placements are less likely to achieve permanency (Orsi et al., 2018). In this sample, over two-thirds of youth were in need of placement at least once while their case was open (that is, they faced a disruption in their placement). Of particular concern, even though attorneys advocated for appropriate placement transitions for almost three-quarters of youth in need of placement (one of the health-related services tracked), less than one-third of these youth had placement concerns addressed (another tracked health service). Thus, the team's attorneys advocated for most of the youth while they transitioned placements, but many youth did not have their placement concerns addressed, and appropriate placements were not available. This raises concerns about the degree to which these youth are "slipping through the cracks" of the system and illustrates the need for prevention services to promote youth remaining in their home of origin and, when foster care is necessary, the need for more placements that can adequately serve youths' needs.

Research shows multisystem youth tend to experience a high rate of placement instability and are more likely to be placed into congregate care facilities compared to their peers who are solely involved with the child welfare system (Baglivio et al., 2016; Herz et al., 2010). In addition, further complicating their circumstance, multisystem youth may be denied access to placements because of their juvenile court involvement. It is critical that changes in policy and practice for the child welfare system increase the likelihood of adequate and appropriate placement, a key mechanism, according to the existing literature for promoting placement stability (e.g., Fruendlich et al., 2006; Klodnick & Samuels, 2020). In service of that goal, it is necessary to develop system processes and practices that ensure youth are matched with placements that have the

capacity and resources to meet their needs, care for, and support them, rather than placements that simply provide shelter (Barber et al., 2001; Delfabbro & Barber, 2003). In that vein, research suggests youth are less likely to experience placement instability in kinship care, when youth are placed with their siblings, and when foster families have good parenting skills and provide a supportive environment (Konijn et al., 2019). Thus, placement context is an important consideration for multisystem youth. Multisystem youth may experience better outcomes when placements provide a familiar environment (e.g., with kin or siblings) that is supportive, as well as one in which the capacity exists to respond to their needs and concerns.

Beyond the immediate effects of inadequate placement or placement disruption on youths' daily life, placement instability for youth in the custody of child welfare has broader health implications

. Specifically, youth who experience mental health and developmental concerns are more likely to be placed into the custody of the child welfare system and experience unstable and multiple placements (Arnow, 2004; Leslie et al., 2005). Further, placement instability may exacerbate already existing mental health issues (McCarthy, 2004; Park & Ryan, 2009). Placement instability also increases the likelihood that youth will abuse substances and decreases the likelihood of achieving permanency (Akin, 2011; Stott, 2013). In addition, changes in placement may also disrupt services for youth. For instance, youth who move from one placement to another may need assistance to ensure they receive ongoing treatment and services from the same providers (Garcia et al., 2018). In sum, placement instability has important implications for health, and advocacy

is necessary to ensure that youth reside in appropriate placements and that there is continuity in services after placement transitions.

5.4. Family Risks, Services, and Permanency

This study examined the mediating role of services on the relation between risk and permanency goal achievement for multisystem youth in the domains of family and health. Family services may be an important point of intervention for multisystem youth. Consistent with this notion, in their developmental cascade framework of pathways to multisystem involvement, Vidal and colleagues (2019) highlight the importance of multiple characteristics of family functioning (e.g., parenting, maltreatment, environment) and suggest that programs that engage children and families are most effective for promoting positive outcomes for multisystem youth. In turn, it was hypothesized family services would mediate the relation between family risk and achievement of permanency goal. However, results did not support this hypothesis. Specifically, family-related risks did not predict permanency goal achievement. I predicted that the presence of fewer family-related risks would be related to youth achieving their permanency goal, but that hypothesis was not supported. In other work, family risk factors have been found to be related to youth permanency – specifically, domestic violence has been found to be marginally related to permanency such that youth exposed to domestic violence returned to their home of origin at higher rates (Ogbonnaya & Pohle, 2013). However, other risks, like parental substance use, reduce the likelihood that a child will return home (Brook & McDonald, 2009). In this study, youth experienced a low level of family-related risk, and the types of family-related risks tracked were quite limited, which may help explain the absence of a significant relation.

In addition, because previous research suggests that family-level risk factors may have differential impact on permanency outcomes (Brook & McDonald, 2009; Ogbonnaya & Pohle, 2013), it is likely necessary to assess a wider range of risks and adversities and obtain a broader understanding of family context to discern how family-related risks may influence permanency.

In my analysis of the potential mediating role of family-related services, I found that family services were significantly related to youths' achievement of their permanency goal such that receipt of more services predicted goal achievement. In addition, family services remained a significant predictor in the final step of the model, which tested the effect of family risk and services on goal achievement, while risk did not predict goal achievement at any step. Thus, while a mediation was not found in this study, findings point to the importance of family-related services in promoting permanency for multisystem youth. Previous research has documented the positive impact of family-based services such as therapy and wraparound services (Clark & Clarke, 1996; Henggeler et al., 2009; Vidal et al., 2019). This study examined less formalized services in which a legal advocate helped families navigate public systems, sought to increase their engagement in their child's case, and referred families to formalized, external services. Findings show that receipt of these family services was related to youth achieving their permanency goal, which suggests that less formal services may be useful in supporting multisystem youth and their families.

This study examined family-level services that were limited in nature and otherwise restricted due to a lack of statistical power. Specifically, in cases examined in this study, attorneys may have referred families to formalized services, provided

education, or attempted to further engage a family in their child's case. It is possible that families who participate in these interventions may be more likely to reunify with their child while families that do not engage in the recommended services may be more likely to have their child achieve permanency through others means (i.e., adoption, guardianship). Data tracking family responses to service recommendations (e.g., family engaged in case planning, family sought out referred service, family rejected education services to assist in navigating the juvenile court system) were not available. While it was not possible to conduct analysis to examine this possibility, it may be that families who participated in services were more likely to experience permanency through reunification. Previous research found provision of family-level services related to youth remaining in their home of origin, improvements in family relationships, and reductions in youth problem behavior (Burke et al., 2014; Orsi et al., 2018; Piquero et al., 2009; Young et al., 2007).Thus, the significance of family services as a point of intervention to improve outcomes for multisystem youth in this study is an important contribution to the literature and for those practicing in this area. Vidal and colleagues (2019) suggest family-level intervention may promote positive outcomes for multisystem youth but note a lack of research in this area and, to my knowledge, this is the first study examining how family-related service provision impacted the relation between family risk and achievement of permanency goals for multisystem youth.

5.5. Health Risks, Services, and Permanency

I predicted that health services would mediate the relation between health risks and permanency goal achievement, such that experiencing fewer health risks and more health-related services would relate to goal achievement. However, a full mediation was

not found and, thus, my hypothesis was not supported. Previous research has suggested experiencing comorbid mental health issues was related to placement instability and disruption of health care services for multisystem and child welfare-involved youth (Garcia et al., 2018). While multisystem youth tend to experience higher health risks and are more likely to receive physical and behavioral health services compared to their single-system involved peers, provision of these services is not related to more positive life course outcomes (e.g., employment, earnings; Culhane et al., 2011; Herz et al. 2012). In addition, previous research has pointed to higher rates of recidivism in the child welfare system when youth receive mental health services (Kim et al., 2020). Thus, my findings along with previous research suggest that health services may support youth development and wellness but may not foster positive system outcomes, including permanency, for multisystem youth. Furthermore, other services may be necessary to mitigate the impact of health risks on system trajectory and outcomes. Specifically, Haight and colleagues (2014) found that increasing collaboration among systems led to a broader array of services available to youth and families, reduced service duplication, and increased satisfaction with services. In addition, results from previous research have suggested that services available through the child welfare system do not adequately address family needs (e.g., income assistance, housing; Featherstone et al., 2021; Roberts, 2014a). Thus, collaborative approaches that increase access to such basic needs, foster family stability, and address broader societal issues (e.g., poverty, inadequate safe and affordable housing) may be critical to promoting multisystem youths' health and positive functioning.

In this study, health risks predicted permanency goal achievement such that youth who experienced more health risks were more likely to achieve their permanency goal. However, receipt of health services was not predictive of permanency goal achievement in this sample. Previous research indicates that multisystem youth have a high prevalence of mental health and substance use problems (Chuang & Wells, 2010; Herz et al., 2006), which is consistent with the current study's finding that over four-fifths of the sample had at least one mental health diagnosis, and two-thirds of youth experienced comorbid mental health diagnoses. In addition, because some youth in this sample were placed in the custody of child welfare by a juvenile court judge to facilitate Medicaid coverage, it stands to reason that attaining Medicaid and receiving necessary healthcare services through Medicaid may directly relate to a youth achieving permanency after their health needs are met. Thus, more information related to health risks and services is needed to understand the specific nature of this relation. As was the case with family risk and services, this study is believed to be the first to examine how health-related service provision impacted the relation between health risk and achievement of permanency goals for multisystem youth.

While this study did not reveal a mediating effect of services on the relations between risk and permanency goal achievement in the domains of family and health, these are key domains of functioning that should be addressed via public sector service responses for multisystem youth. Moreover, as the implementation of Family First legislation continues and its effects can better be understood, it is imperative to evaluate the use of prevention and permanency services and their impact on youth remaining in their homes of origin and maintaining placement stability. In addition, it is important to

examine this relation through a critical lens and consider the potential effects of a broader range of contextual risks as well as the services intended to meet family needs.

In the past, child welfare services included cash assistance which could be used by families to promote stability and health in ways that best fit their needs (Testa & Kelly, 2020; Woodward, 2021). Over time, the child welfare system shifted goals from family preservation to child "saving," and service provision has vacillated from economic supports to social services (Jimenez, 2006; Myers, 2008; Testa & Kelly, 2020). While policy has shifted once again to promote family stability and preservation, these shifts have continued to promote the regulation of families and have not attended to social inequities, which may not be adequate to address familial needs (Featherstone et al., 2021; Roberts, 2014a). Thus, service provision must shift to a more supportive, contextually responsive, and culturally sensitive system that simultaneously addresses family needs while dismantling social inequities (Bywaters et al., 2016; Featherstone et al., 2021; Roberts, 2014a, 2012; Sarri & Finn, 1992; Woodward, 2021).

5.6. Multisystem Youth's Experiences of Risks and Services between Genders

In my examination of the experience of family risks and services between genders, I found boys experienced more family risk and received more family services compared to girls; however, these differences were not significant and, thus, my hypotheses were not supported. Research suggests boys are more likely to have risks identified (Chen et al., 2011), which generally is consistent with my findings. While boys had more total family risks identified (of the very restricted set of risks tracked), a deeper analysis reveals the potential for greater nuance. While the small sample necessarily requires the judicious interpretation of these findings, in this sample, 75% of youth who

were reported to have witnessed domestic violence were boys, and two of the three youth who were reported to child welfare while their cases were open were girls. Thus, it may be that boys are more likely to experience risks that are more easily identified while girls may experience more complex risks, conclusions that are consistent with previous research (Chen et al., 2011). In addition, Bywaters and colleagues (2016) found that boys were more likely to be referred to child welfare interventions and services, which suggests that boys may be more likely to experience family-level services. In this sample, however, while higher numbers of family risks and services (in total and when considering each service discretely) were reported for boys, these differences were not significant, suggesting that boys and girls in this study experienced similar treatment by their attorneys related to the risks and services tracked.

I also predicted that boys would experience more health risks and services and, while this was accurate in terms of absolute differences, significant differences only existed for health risk. Thus, my hypothesis that boys would experience more health risks was supported, but my hypothesis related to boys receiving more health services was not. The present results align with previous research which suggests that boys' health risks are identified at higher rates compared to girls (Bywaters et al., 2016; Chen et al., 2011; Smithgall et al., 2013). Multiple factors may contribute to such observed differences. Previous research has found that boys are more likely to exhibit externalizing behaviors (e.g., acting out, aggression, oppositionality, and other problem behaviors), which may contribute to the identification of risks by the child welfare system (Chen et al., 2011). In addition, externalizing behaviors are related to system outcomes such as greater juvenile court involvement, out-of-home placements, and placement instability (Chen et al., 2011;

Espinosa et al., 2013; McCarthy, 2004), which suggests boys are more likely to experience those system outcomes. Further, Medicaid coverage may be affected by placement in the juvenile court and child welfare systems, and previous research shows that lapses in Medicaid coverage are common for youth who experience incarceration in the juvenile or criminal court system and/or placement changes in the child welfare system (Hanlon et al., 2008; Raghaven et al., 2016). In light of these various factors, boys may be at a higher risk to experience issues with maintaining Medicaid coverage, a possibility that was borne out in this sample in an absolute sense. In this sample, boys experienced significantly more health risks (which included challenges with Medicaid access) compared to girls.

Significant differences were not found for health services between boys and girls. More than four out of five youth in the sample presented with at least one mental health diagnosis, and treatment was advocated for over three-fourths of the sample. Thus, health needs in our sample were high for boys and girls, and risks were primarily addressed through treatment advocacy. While boys experienced a higher absolute number of health-related services than girls, these differences were small and not significant, and both groups received a similar level of assistance across all five of the health services tracked. My findings related to health risk and services between boys and girls contribute to, and are consistent with, the mixed findings in the current base of research. In one study, researchers found boys accessed mental health services at a greater rate than girls (Smithgall et al., 2013). However, another study found boys' and girls' mental health service utilization did not differ within the context of a collaboration between child welfare and mental health professionals (Bai et al., 2009). Thus, this study builds on

previous research and suggests boys and girls may be more likely to receive similar health-related services when system professionals collaborate and address holistic needs.

5.7. Multisystem Youths' Experiences of Risks and Services by Permanency Outcome

Select permanency data were available for a subset of the present sample (i.e., included youth who achieved permanency goal or aged out but excluded youth who were AWOL, transferred to adult criminal court, or otherwise did not experience permanency). This information was examined to determine if risks or services varied based on permanency outcome. Youth who aged out experienced more family risk and received fewer family-related services (in an absolute sense) than those who achieved their permanency goal. While the direction of these findings was consistent with my expectations, results were not significant and, thus, my hypothesis was not supported.

Some absolute differences reflecting the tracked family risks and family-related services may hold relevance for those conducting research and working in this area. For instance, in this sample, youth who aged out witnessed domestic violence and were reported to child welfare while their cases were open at a greater rate than youth who achieved permanency. While youth who aged out tended to have lower rates of parental education and family engagement tracked, advocacy for family outreach was offered more frequently to these youth. These findings suggest that youth who age out may have more specialized familial needs and a broader range of services is necessary to meet those needs. Youth who age out tend to have less stable familial connections compared to their counterparts who achieve permanency (e.g., Crawford et al., 2018; Freundlich et al., 2006). Thus, for youth who age out, family risk may be higher, and system professionals

may not be able to adequately address youth and family needs. My findings align with previous work and reaffirm that appropriate services must be provided to ensure youth achieve permanency (Klodnick & Samuels, 2020). Moreover, it is important to note that the establishment of permanent placements for youth is a critical goal for child welfare professionals to achieve through service provision tailored to family needs, and lack of permanency goal achievement does not reflect youth needs, characteristics, or behaviors (Klodnick & Samuels, 2020). In turn, when youth age out from the child welfare system, it reflects inadequate service on the part of system professionals and a failure to meet their obligation to this specific population of multisystem youth.

Analyses revealed that youth who aged out experienced significantly more health risks than those who achieved their permanency goal. Youth who aged out also received more health services, a relation that trended toward significance. This combination of results was partially consistent with my hypothesis that youth who aged out would experience higher risk and receive fewer services. It is of note that 100% of youth (n = 14) who aged out experienced placement instability and needed a placement during their case in comparison to just under three-fourths of youth who achieved their permanency goal (n = 28 of 39 youth). While this reflects a high rate of placement disruption for both groups, previous research has shown placement instability is related to aging out of the system (Park & Ryan, 2009; Stott & Gustavsson, 2010), which aligns with these findings.

Youth who aged out also tended to receive a greater number of total health services. As one example, 100% of this sample's youth who aged out received advocacy services related to mental health treatment. Previous research has found that youth who receive mental health services while in child welfare custody are more likely to re-enter

child serving systems (Kim et al., 2020). Such findings, along with the results from the present study, suggest that additional measures should be taken to support youth with mental health needs who receive services and to promote more positive system and life outcomes for these youth. This study revealed one incongruity related to health risks and services for youth based on permanency outcome: in an absolute sense, a greater proportion of youth who aged out experienced issues maintaining Medicaid, but a greater proportion of youth who achieved permanency received assistance obtaining or reinstating Medicaid. Thus, youth who achieved their permanency goal may have had greater access to healthcare services not tracked in the dataset used here.

Of note, in the smaller sample of youth who aged out or achieved their permanency goal, aging out was significantly related to case duration (i.e., number of days a case was open). Case duration was also correlated with receipt of more health services but no other significant relations were found. Health risks for youth may change, and challenges may arise over time and, thus, longer case duration may provide an attorney with more opportunity to recognize a health risk and advocate for health services.

The higher level of health services for youth who aged out of the system suggests there is a need for aftercare services to ensure that youth can continue to access necessary services after system contact ends. These findings are important as the federal government offers funding for youth who age out of foster care, and states must take advantage of this program to ensure that youth maintain healthcare services (Eastman & Putnam-Hornstein, 2018).

5.8. Limitations, Contributions, and Future Directions

This study has several limitations that should be noted. First, the sample of multisystem youth was small, despite encompassing all youth represented in a large county over nine years. The small sample size has implications for analytical power. In the mediating regressions, for instance, power was only sufficient for detecting large effect sizes (see Erdfelder et al., 1996), which may have contributed to my lack of significant results. In addition, the multisystem youth included in the study may not be reflective of all multisystem youth due to their specific pathway to involvement. That is, youth in this study became involved with the juvenile court and child welfare systems through judicial ruling via a process governed by North Carolina state statute. This process may not exist in other states and may be different in other counties in North Carolina. In fact, it is notable that youth court processes (i.e., juvenile court, child welfare court proceedings) differ across North Carolina counties in terms of availability of specialized juvenile attorneys and judicial procedures (e.g., one family, one judge; North Carolina Judicial Branch, n.d.-b). While the sample may not be representative, and results of this study may not apply to other populations of multisystem youth, research in this area, particularly related to youth needs, is underdeveloped (Herz et al., 2019; Stone & Zibulsky, 2015). Thus, this study makes a relevant contribution to the literature, and future research should explore risks and services across the domains of family and health in a broader sample of multisystem youth that have become involved through various pathways.

The sample's characteristics also limited the nature of analyses. For instance, while I examined differences in risks and services across gender and permanency goal achievement outcome, the sample was not diverse in terms of race and ethnicity, which

limited my ability to make comparisons. Previous research has found disparities in populations of multisystem youth, with Black youth being overrepresented (Cutuli et al., 2016; Dierkhising et al., 2019; Herz et al., 2010; Ryan et al., 2007; Shipe et al., 2017). Future research should include comparisons of multiple subgroups of youth, including by gender, race and ethnicity, sexual orientation, and family income.

There were also clear limitations related to the use of archival data. These data were collected for case management and grant reporting purposes, not for research. In turn, some variables of interest were not available, and some data lacked nuance, which contributed to gaps in areas this study could address. For instance, a circumscribed number of risks were available that did not reflect the varied types of risks that multisystem youth may encounter. As an example, research points to family risks such as behavioral health issues for a parent and parent involvement in criminal court as important for system trajectory for child welfare-involved youth (Herz et al., 2010; Ryan et al., 2013; Vidal et al., 2019); however, those data were not available. Previous research also points to the importance of family services, such as parenting classes or behavioral health treatment, to promote stability and functioning within families (see Bright et al., 2018; The California Evidence-Based Clearinghouse for Child Welfare, 2010; Fuller & Zhang, 2017; Toros et al., 2018). However, family services in this study were a rather limited set that reflected the assistance and recommendations provided by youth's legal advocate and did not directly align with family-level risk (e.g., families with youth who witnessed domestic violence were not provided services to prevent violence in the home). In addition, family outreach services included referrals to formalized services that address specific family needs, but service type was not tracked. Further, in the current study,

attorneys may have informally provided parent education or family engagement services and referred families to multiple external, formal services but data do not include families' participation in these services. Thus, data relate to attorneys' actions in cases but do not reflect family involvement in services, i.e., if services were actually accessed subsequent to advocacy or a referral.

Health risks were also limited to number of mental health diagnoses, placement needs, and Medicaid needs, and the tracked services were related to those risks. Previous research points to the importance of other variables such as severity of mental health diagnosis and participation in risky behaviors (e.g., substance use) for system outcomes (e.g., permanency, recidivism; Haight et al., 2016; Herz et al., 2010; Lee & Villagrana, 2015). In addition, wraparound services may mitigate future contact with systems (Coldiron et al., 2019), but general mental health services have been found to be related to future system contact (Kim et al. 2020). Thus, there are multiple health risks and services that may be important for multisystem youth, but not all were available for inclusion in this study. Future research should assess a broader array of risks and services across family, health, and other life domains to better understand the needs of multisystem youth and how to better support this population. In addition, future research should explore participation in services at the youth- and family-level.

In this study, a limited number of risks encountered and services received across the domains of family and health were tracked, and these experiences were counted for the purpose of analysis. While stress research, particularly research focused on adverse childhood experiences (e.g., Dube et al., 2001; Menard et al., 2004), has included counts of stressors in analyses, it is important to note that a simple count of risks or services may

not capture the full experience of youth and their families. Specifically, data did not reflect the severity of risk or access to or level of engagement in services. In addition, each risk or service is weighted equally in analysis but may have differential impact for youths' and families' system trajectories and later outcomes. Thus, this study has implications for the nature of data collected. To better understand how to serve multisystem youth, increased collaboration is needed between systems as well as between researchers and practitioners. Specifically, researchers or evaluators can work with practitioners to use available research to identify risks (e.g., parental substance use, violence in home or community) that may contribute to negative outcomes (e.g., aging out of system, behavioral health issues, criminal court involvement) and which services (e.g., wraparound services, assistance navigating public systems) may promote more positive outcomes for multisystem youth. More broadly, researchers and evaluators can partner with agency or program personnel to identify potential questions of interest and, in turn, the nature of the data needed to address these questions (Cook & Kilmer, 2021).

In general, increasing collaborations among practitioners and researchers may guide data collection that can inform service provision and improvement, helping practitioners to better serve multisystem youth. For instance, such collaborations may result in practitioners collecting data on important risks that may influence youths' system trajectory and life course as well as data related to service provision from multiple public systems (e.g., education, child welfare, juvenile court). These data can be used by researchers to understand how service provision may mitigate the relation between risks and negative system and life course outcomes (e.g., permanency, recidivism, health). Researchers can also assist practitioners in operationalizing their activities so that the

nature of what a youth experiences and receives can be tracked and assessed accurately. Overall, strengthening collaboration and building capacity for enhanced data collection can (a) help inform the ongoing improvement of services, (b) promote the equitable provision of services for youth based on need, and (c) provide a better understanding of youth needs, strengths, and how they have been served (e.g., Abbott & Barnett, 2016; Haight et al., 2016; Haight et al., 2014).

While this study examined achievement of youths' permanency goal, the available data limited the degree to which it was possible to assess diverse permanency outcomes. Case management data reflected permanency goal achievement status (i.e., goal achieved, goal not achieved) but did not reflect the specific nature of youth permanency outcomes (e.g., reunification, adoption, aged out, transferred to adult criminal court). Nevertheless, because previous research has often focused on recidivism for these youth (e.g., Baglivio et al., 2016; Hirsch et al., 2018; Huang et al., 2012; Ryan et al., 2013), this study's focus on permanency contributes to the literature by focusing on another system outcome – including the positive outcome of goal achievement. Future research should consider a broader range of permanency outcomes for multisystem youth. In addition, future research should examine how various risks and services relate to youths' exit outcome, such as whether they achieve permanency, are transferred to adult criminal court, or age out of the system.

Notwithstanding these limitations, this study contributes to the literature by examining risks and services across the domains of family and health for multisystem youth and investigating differential experiences for youth by gender and permanency outcome. Previous research has pointed to the lack of attention given to multisystem

youth despite the high needs of this population (e.g., Baglivio et al., 2016; Herz et al., 2019; Herz et al. 2006; Herz et al. 2010). In addition, previous research comparing boys and girls involved in public systems has found that girls' risks may be less visible which, in turn, relates to lower levels of service provision. This study builds upon and extends the literature by examining the experience of multisystem boys and girls and exploring differential experiences of youth based on their permanency outcome.

In the review of literature that informed the present effort, Orsi and colleagues' (2018) study was the only one identified that examined differential permanency outcomes for multisystem youth. Permanency is a critical outcome in the child welfare system and is related to future employment, court involvement, and substance use (Stott, 2013). Greater attention should be paid to multisystem youth, including those who age out or otherwise do not achieve their permanency goal (e.g., transferred to adult court). These youth represent a vulnerable population that likely has unaddressed needs from childhood and requires additional support (e.g., aftercare services, healthcare coverage) to promote health, safety, and stability in adulthood and for future generations (see Crawford et al., 2018; Kang-Yi & Adams, 2017; Klodnick & Samuels, 2020; Schelbe, 2018; Vidal et al., 2019)

This study examined the identification of risks and provision of services across the domains of family and health for multisystem youth. Results from this study may inform how system professionals should assess risk and provide services for multisystem youth across the domains of family and health. Overall, a more holistic approach to risk identification should be taken. Moreover, it is critical to understand and assess risks

youth may encounter in their home, communities, schools, and other contexts and work with youth and families to mitigate these risks.

In this study, family services tended to be less formalized and involved attorneys working with families to better understand and navigate public systems. These results point the importance of building relationships with families and the potential to strengthen and stabilize families through less formal services. In addition, health services encompassed facilitating health coverage and advocating for appropriate treatment and placement, but these services were not related to permanency. Youth in this sample experienced a moderate level of health risks, and it is possible the services provided were not adequate to address these risks. However, health interventions used across child welfare and juvenile court tend to have mixed results. Taken together, these findings suggest that current interventions may not be adequate to address family need and promote stability. In that vein, some researchers suggest it is necessary to overhaul our public systems to focus less on family regulation through the provision of social services and more on building family autonomy (e.g., Featherstone et al., 2021; Roberts, 2014a, 2012; Woodward, 2021). Overall, to best serve multisystem youth, we must both better understand the risks faced by these youth and the impact of services and, guided by data, take action to mitigate risks across multiple domains, increase collaboration across systems, and address systemic disparities.

In sum, this study highlights the power of collaboration. Outcomes for multisystem youth improve when professionals across systems collaborate and when system professionals work to engage and collaborate with youth and their families. These findings demonstrate the potential benefit of a specialized legal team offering less

formalized services intended to engage families in case planning and assist them in navigating public systems, as well as the positive effect on promoting permanency for multisystem youth. However, this team of highly trained attorneys were not able to mitigate all risks for multisystem youth through provision of services. Situated in the literature, these findings suggest a broader array of services that address familial needs while simultaneously working to ameliorate social inequities (e.g., housing, income, healthcare) may be needed to better support multisystem youth and their families.

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Table 1. Sample Demographics and Case Characteristics.

Gender	%
Boy	67.6
Girl	32.4
Race/ethnicity	
Black	77.0
Latinx	5.4
Multiracial	6.8
White	8.1
Other	2.8
Age at Open	
10 and under	1.4
11-13	10.8
14-15	59.5
16-17	28.4
Case Duration (days)	
<6 months	28.4
6-12 months	18.9
1-2 years	27.0
2-3 years	13.5
3-4 years	6.8
4+ years	5.4
Reason Closed	
Permanency Goal Achieved	52.7
Youth Aged Out	18.9
Other (e.g., AWOL, transferred to adult court)	28.4

Note: $n = 74$.

Table 2. Key Study Variables: Correlations, Summary of Means, and Standard Deviations.

		M	*SD*	1	2	3	4	5	6	7	8	9
1.	Case Duration (days)	515.82	480.32	--								
2.	Age	14.72	1.48	-.12	--							
3.	Gender[+]	--	--	.06	.11	--						
4.	Race/ Ethnicity[+]	--	--	-.03	-.29**	-.10	--					
5.	Family Risks	0.31	.50	-.04	.12	-.03	-.02	--				
6.	Family Services	1.27	0.98	.10	.03	-.10	-.15	.33**	--			
7.	Health Risks	2.74	1.49	.10	.14	-.25*	-.12	.33**	.52***	--		
8.	Health Services	1.73	1.20	.34**	.08	-.18	.07	.21	.47***	.72***	--	
9.	Achieve Perma-nency Goal	--	--	-.17	.00	.08	.07	.05	.46***	.24*	.15	--

Note: $n = 74$. * $p < .05$; ** $p < .01$; *** $p < .001$. [+] Gender is dummy coded: boys = 0, girls = 1; Race/ethnicity is dummy coded: Black = 0, other (Latinx, multiracial, other, White) = 1.

Table 3. Summary of Multisystem Youths' Experience of Risks and Services across the Domains of Family and Health.

Number of Family Risks	%
0	70.3
1	28.4
2	1.4
Number of Family Services	
0	31.1
1	17.6
2	44.6
3	6.8
Number of Health Risks	
0	13.5
1	9.5
2	10.8
3	27.0
4	33.8
5	5.4
Number of Health Services	
0	24.3
1	9.5
2	40.5
3	20.3
4	5.4
5	0.0

Note: n = 74.

Table 4. Summary of Multisystem Youths' Experience of Risks and Services across the Domains of Family and Health by Type.

Family Risks	%
CPS[+] Report Made	4.1
Domestic Violence	27.0
Family Services	
Parent education	54.1
Family engagement	60.8
Family outreach	12.2
Health Risks	
Needs Medicaid	10.8
Mental Health Diagnosis (1+)	81.1
Comorbid Mental Health Diagnoses (2+)	70.3
Comorbid Mental Health Diagnoses (3)	43.2
Needs placement	68.9
Health Services	
Assist with Medicaid Issue	9.5
Treatment advocated	75.7
Compliance with treatment advocated	8.1
Addressed placement concerns	23.0
Appropriate transition advocated	56.8

Note: n = 74. [+] Child Protective Services.

Table 5. Crosstabulations of Family Risks and Services for Multisystem Youth.

	Presence of Family Risks				
Family Services	CPS[+] Report Made-Yes (*n* = 3)	CPS[+] Report Made-No (*n* = 71)	Domestic Violence-Yes (*n* = 20)	Domestic Violence-No (*n* = 54)	Total (*n* = 74)
Parent Education	3	37	14	26	40
Family Engagement	3	42	16	29	45
Family Outreach	1	8	4	5	9

Note: [+] Child Protective Services.

Table 6. Crosstabulations of Health Risks and Services for Multisystem Youth.

	Presence of Health Risks						
Health Services	Needs Medicaid-Yes (*n* = 8)	Needs Medicaid-No (*n* = 66)	Mental health diagnosis-Yes (*n* = 60)	Mental health diagnosis-No (*n* = 14)	Needs placement-Yes (*n* = 51)	Needs placement-No (*n* = 23)	Total (*n* = 74)
Assist with Medicaid issue	5	2	7	0	4	3	7
Treatment advocated	8	48	53	3	48	8	56
Compliance with treatment advocated	1	5	5	1	5	1	6
Addressed placement concerns	3	14	17	0	16	1	17
Appropriate transition advocated	7	35	40	2	37	5	42

Table 7. Linear Mediated Regression Examining the Effect of Family Services on the Relation between Family Risk and Achievement of Permanency Goal.

	Predictor	Outcome	B^a	R^2	Change in R^2	F
Step 1				.002	--	.17
	Family Risks	Permanency	.05			
Step 2				.110	--	8.92**
	Family Risks	Family Services	.66**			
Step 3				.208	--	18.91**
	Family Services	Permanency	.23**			
Step 4				.220	.218	10.01**
	Family Services		.25**			
		Permanency				
	Family Risks		-.12			

Note: $n = 74$. [a]B = unstandardized coefficient; * $p < .05$; ** $p < .01$.

Table 8. Linear Mediated Regression Examining the Effect of Health Services on the Relation between Health Risk and Achievement of Permanency Goal.

	Predictor	Outcome	*B*[a]	R^2	Change in R^2	*F*
Step 1				.057	--	4.32*
	Health Risks	Permanency	.08*			
Step 2				.520	--	77.87***
	Health Risks	Health Services	.58***			
Step 3				.022	--	1.63
	Health Services	Permanency	.06			
Step 4				.058	.001	2.17
	Health Services	Permanency	-.02			
	Health Risks		.09			

Note: $n = 74$. [a]*B* = unstandardized coefficient; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 9. Summary of Multisystem Youth's Experience of Risks and Services across the Domains of Family and Health by Type and Gender.

Family Risks	% Boys (n = 50)	% Girls (n = 24)
CPS[+] Report Made	2.0%	8.3%
Domestic Violence	30.0%	20.8%
Family Services		
Parent education	56.0%	50.0%
Family engagement	62.0%	58.3%
Family outreach	16.0%	4.2%
Health Risks		
Needs Medicaid	12.0%	8.3%
Mental Health Diagnosis (1+)	88.0%	66.7%
Comorbid Mental Health Diagnoses (2+)	78.0%	54.2%
Comorbid Mental Health Diagnoses (3)	50.0%	29.2%
Needs placement	72.0%	62.5%
Health Services		
Assist with Medicaid Issue	10.0%	8.3%
Treatment advocated	80.0%	66.7%
Compliance with treatment advocated	8.0%	8.3%
Addressed placement concerns	30.0%	8.3%
Appropriate transition advocated	60.0%	50.0%

Note: [+] Child Protective Services.

Table 10. Independent samples *t*-test (equal variances assumed) comparing family risks reported for boys and girls.

	M	**SD**	***t*(df)**	***p***
Boys (*n* = 50)	.32	.51	.229(72)	.82
Girls (*n* = 24)	.29	.46		

Table 11. Independent samples *t*-test (equal variances assumed) comparing family services reported for boys and girls.

	M	**SD**	***t*(df)**	***p***
Boys (*n* = 50)	1.34	1.00	.879(72)	.38
Girls (*n* = 24)	1.13	.95		

Table 12. Independent samples *t*-test (equal variances assumed) comparing health risks reported for boys and girls.

	M	**SD**	***t*(df)**	***p***
Boys (*n* = 50)	3.00	1.34	2.194(72)	.03
Girls (*n* = 24)	2.21	1.67		

Table 13. Independent samples *t*-test (equal variances assumed) comparing health services reported for boys and girls.

	M	**SD**	***t*(df)**	***p***
Boys (*n* = 50)	1.88	1.17	1.574(72)	.12
Girls (*n* = 24)	1.42	1.21		

Table 14. Summary of Multisystem Youths' Experience of Risks and Services across the Domains of Family and Health by Type and Permanency Outcome.

Family Risks	% Age out (n = 14)	% Achieve Permanency Goal (n = 39)
CPS[+] Report Made	7.1%	5.1%
Domestic Violence	57.1%	28.2%
Family Services		
Parent education	57.1%	74.4%
Family engagement	64.3%	82.1%
Family outreach	21.4%	12.8%
Health Risks		
Needs Medicaid	21.4%	12.8%
Mental Health Diagnosis (1+)	100.0%	94.9%
Comorbid Mental Health Diagnoses (2+)	85.7%	84.6%
Comorbid Mental Health Diagnoses (3)	71.4%	43.6%
Needs placement	100.0%	71.8%
Health Services		
Assist with Medicaid Issue	7.1%	12.8%
Treatment advocated	100.0%	87.2%
Compliance with treatment advocated	14.3%	7.7%
Addressed placement concerns	35.7%	20.5%
Appropriate transition advocated	92.9%	61.5%

Note: [+] Child Protective Services.

Table 15. Independent samples *t*-test (equal variances assumed) comparing family risks reported for youth who age out and youth who achieve their permanency goal.

	M	**SD**	***t*(df)**	***p***
Age Out (*n* = 14)	.64	.63	1.904(51)	.06
Permanency Goal Achieved (*n* = 39)	.33	.48		

Table 16. Independent samples *t*-test (equal variances not assumed) comparing family services reported for youth who age out and youth who achieve their permanency goal.

	M	**SD**	***t*(df)**	***p***
Age Out (*n* = 14)	1.43	1.02	-.899(17.549)	.38
Permanency Goal Achieved (*n* = 39)	1.69	.69		

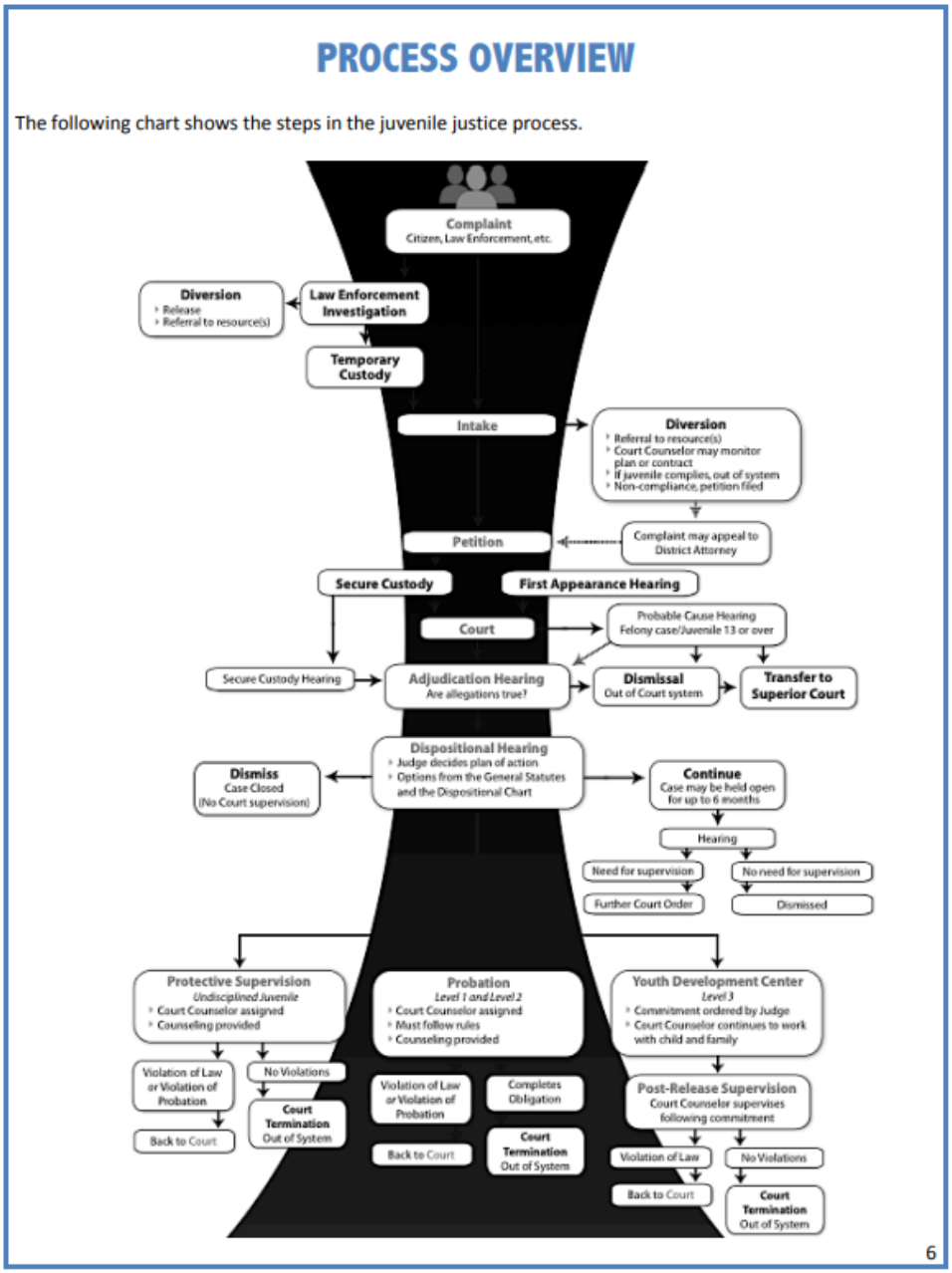
Table 17. Independent samples *t*-test (equal variances assumed) comparing health risks reported for youth who age out and youth who achieve their permanency goal.

	M	**SD**	***t*(df)**	***p***
Age Out (*n* = 14)	3.79	.80	2.229(51)	.03
Permanency Goal Achieved (*n* = 39)	3.08	1.09		

Table 18. Independent samples *t*-test (equal variances assumed) comparing health services reported for youth who age out and youth who achieve their permanency goal.

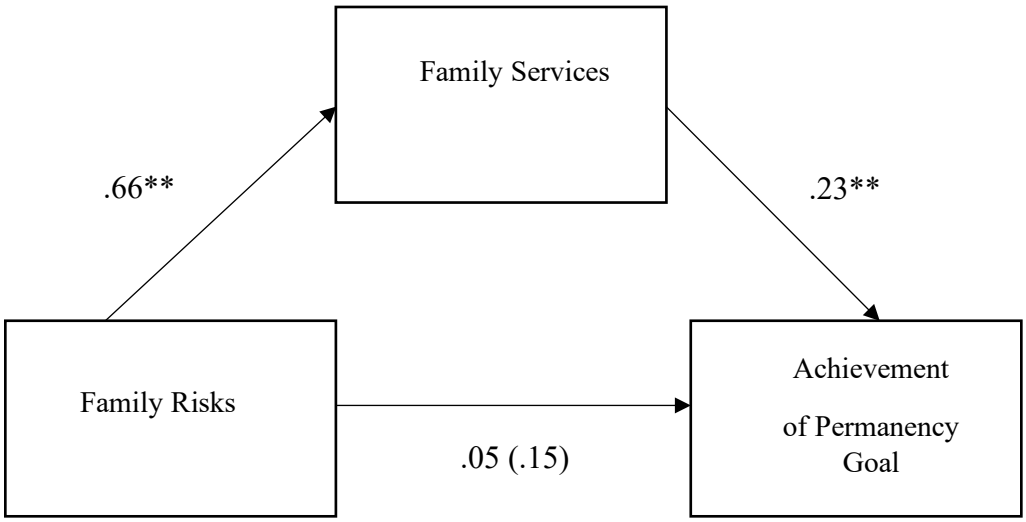
	M	**SD**	***t*(df)**	***p***
Age Out (*n* = 14)	2.50	.86	1.932(51)	.06
Permanency Goal Achieved (*n* = 39)	1.90	1.05		

Figure 1. Juvenile Court Process Overview.



Note: Reprinted from A Guide to Juvenile Court for Youth and Parents in North Carolina, In *Youth Justice North Carolina,* by J. Langberg & P. Robinson, 2014, https://www.dconc.gov/home/showdocument?id=11955. Reprinted with permission.

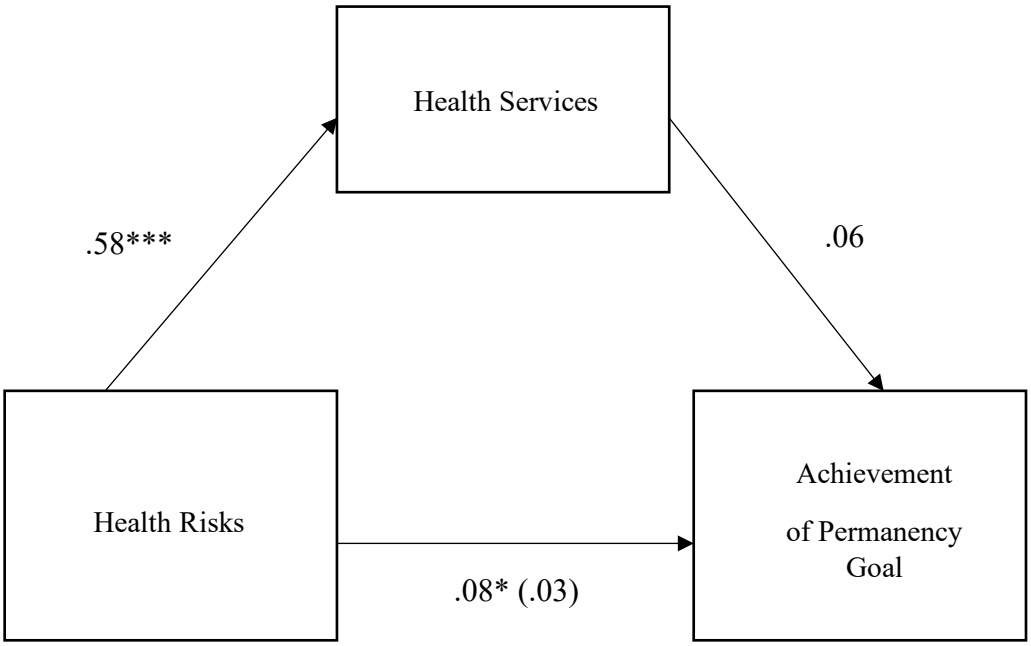
Figure 2. Model representing Mediated Regression to Examine the Relation between Family Risks and Permanency Goal Achievement Mediated by Family Services.



Note: ** $p < .01$.

Indirect effect is indicated in parentheses.

Figure 3. Model representing Mediated Regression to Examine the Relation between Health Risks and Permanency Goal Achievement Mediated by Health Services.



Note: * $p < .05$; *** $p < .001$.

Indirect effect is indicated in parentheses.

APPENDIX A: SUPPLEMENTARY ANALYSIS

Multivariate logistic regression was used to test the relations among permanency goal achievement and risks and services across the domains of family and health. The dependent variable, permanency goal achievement, was dichotomous such that youth either achieved their permanency goal (i.e., adoption, reunification, guardianship) or youth did not achieve their permanency goal (e.g., age out, transferred to adult criminal court). In the first step, risks (i.e., either family or health) were entered to predict permanency goal achievement. In the second step, risks and services (i.e., either family or health) were entered to predict permanency goal achievement. Results from these analyses would indicate a mediation was present if (a) in the first step, risks significantly predicted permanency achievement; (b) then, in the second step, services significantly predicted permanency achievement and risks were no longer a significant predictor.

In the first analysis, the effect of family services on the relation between family risks and permanency goal achievement was tested (see Table A). In the first step, family risk was entered as the predictor of permanency goal achievement and was not significant, $R^2 = .002$, $p = .68$. In the second step, family risks and services were entered as predictors of permanency goal achievement. In this step, family risks did not predict permanency goal achievement but family services predicted permanency goal achievement, $R^2 = .002$, $p < .001$; $\Delta R^2 = .208$. Mediation was not found as family risks were not significant in the first step. These results align with the results from the linear multiple regression which showed that family risks were not predictive of permanency achievement but family services predicted goal achievement.

In the second analysis, the effect of health services on the relation between health risks and permanency goal achievement was tested (see Table B). In the first step, health risk was entered as the predictor of permanency goal achievement and the model was significant, $R^2 = .056$, $p < .05$. In the second step, health risks and services were simultaneously entered as predictors of permanency goal achievement. In this step, neither health risks nor health services were related to permanency goal achievement, $R^2 = .057$, $p = .11$; $\Delta R^2 = .001$. Mediation was not found as health services were not significant in the second step. The results from the second logistic regression are similar to my results from the linear regression which showed health risks predicted permanency goal achievement but health services did not.

Overall, the results of the logistic and linear analyses are consistent, and differences in effect sizes are small ($\leq .01$). My results confirm the similarity of linear and logistic regression as well as the appropriateness of linear regression for my models as asserted by Hellevik (2009).

Table A. Multivariate Logistic Regression Examining the Effect of Family Services on the Relation between Family Risk and Achievement of Permanency Goal.

	Predictor	B[a]	*SE*	*p*	R^2	Change in R^2
Step 1					.002	
	Family Risks	.20	.48	.67		
Step 2					.210***	.208
	Family Risks	-.58	.57	.31		
	Family Services	1.17	.31	<.001		

Note: $n = 74$. B[a] = standardized coefficient. *** $p < .001$.

Table B. Multivariate Logistic Regression Examining the Effect of Health Services on the Relation between Health Risk and Achievement of Permanency Goal.

	Predictor	B	*SE*	*p*	R^2	Change in R^2
Step 1					.056*	
	Health Risks	.33	.17	.05		
Step 2					.057	.001
	Health Risks	.38	.24	.11		
	Health Services	-.08	.29	.78		

Note: $n = 74$. B^a = standardized coefficient. * $p < .05$.