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Strengthening social networks of youth aging out of foster care: Promoting positive adult outcomes

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

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February, 2018

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Abstract

STRENGTHENING SOCIAL NETWORKS OF YOUTH AGING OUT OF FOSTER CARE: PROMOTING POSITIVE ADULT OUTCOMES

Rachel Rosenberg, Ph.D.

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During the transition to adulthood, youth often rely on the people in their life for support. However, for transition-aged foster youth, these supports may not be available or may look different than supports available to youth in the general population. Relationships with supportive adults have been found to help former foster youth transition to adulthood, but little is known about the adults youth have in their network. Foster youth who report increased levels of social capital have been shown to experience higher levels of success in young adulthood. However, as former foster youth transition to adulthood, a lack of in-depth understanding of supportive adults and social networks creates difficulties identifying—and addressing—potential gaps in their social network. This study aims to gain a better understanding of how social networks influence social support and access to and mobilization of social capital as youth leave the foster care system.

A social network assessment based on two existing measures was created to attain a better understanding of the social networks of transition-aged foster youth. The new social network tool was piloted with a group of young adults prior to use in this study. This social network tool allowed for an in-depth understanding of social networks, social support, and social

capital as three distinct constructs. The social network characteristics included: on whom the youth relies for support, how the relationship developed, and the closeness of the relationship. Social support included: questions on the type of support available to youth (resources, emotional, advice, or constructive criticism), as well as the social support domains (housing, education, employment, relationships, and transportation). Social capital was examined based on questions about network members' occupation(s) and frequency of communication between the youth and each network member.

Univariate, Bivariate, and Multivariate analyses were utilized to examine social network characteristics, foster care history, social support, and social capital. The mean network size of sample participants was 7.1 and the range was 0–36. A relationship between placement type and social network members was found; indicating that youth in congregate care were more likely to have formal (social service related) networks than youth not in congregate care. A relationship between having more informal network members and housing stability was found; indicating that different network members may help youth with different young adult outcomes. A relationship between both access to, and mobilization of, social capital was found based on the type of social network members (formal, informal, familial-biological, familial-foster).

Based on the findings of the current study, research and practice implications are discussed. These include the utility of social network analysis with transition-aged foster youth, future lines of inquiry, and suggested practice/policy shifts.

Chapter 1: Introduction

Youth in foster care are among this country's most vulnerable youth. Typically, removal from their home is due to abuse or neglect, and placement into the foster care system is supposed to ensure their safety and well-being. However, removal and placement in foster care also introduce a world of uncertainty and change. While characteristics of youth in care vary, older youth who enter the foster care system often face additional hurdles to success. Older youth in care often experience increased placement instability, decreased placements in family settings, and are more likely to age out of care without finding legal permanency (Pecora, Whittaker, Maluccio, Barth, & DePanfilis, 2009). While older youth in care may not achieve legal permanency, they may have strong relationships within the community that could help them in the transition to adulthood. However, there is little evidence about on whom older youth rely for support and how these connections are associated with their adult outcomes. This research aims to gain a better understanding of the social networks and social supports of youth aging out of foster care.

Research has repeatedly shown that youth who have experienced foster care are at increased risk for poor adult outcomes such as homelessness, substance abuse, incarceration, low educational attainment, unemployment, and early pregnancy (Bender, Yang, Ferguson, & Thompson 2015; Berzin, Rhodes & Curtis, 2011; Courtney, Dworsky, Lee, & Raap, 2010; Day, Dworsky, Fogarty, & Damashek, 2011). However, not all youth who experience foster care experience these outcomes, suggesting that there may be factors or experiences that can help protect against the potentially harmful effects of foster care. Research is beginning to explore the positive effects of social support as one potential mediator between placement in the foster care

system and a range of adverse adult outcomes (Salazar, Keller, & Courtney, 2011). However, there is a gap in knowledge around the social networks of transition-aged foster youth. To more fully understand the potential of this factor, it is important to gain a better understanding of the composition of the social networks and how youth use them as they transition into adulthood.

Using a sample of youth between the ages of 18 and 25 in Virginia, the current research sought to gain a better understanding of the composition and utilization of the social networks of transition-aged foster youth. To attain this goal, a descriptive exploratory study approach was utilized, and 58 transition-aged foster youth were interviewed and asked about the composition of their social networks (members, size, strength of relationship) and how they utilize these social networks as they transition out of care. The study was influenced by theories of social networks, social capital, and emerging adulthood. These theoretical underpinnings help to capture the unique life stage young adults are in, the importance of social relationships, and the role protective factors play in helping to facilitate a successful transition to adulthood.

Background

In 2014, there were 2.1 million reported incidents of child abuse or neglect that affected 3.9 million children (Health and Human Services (“HHS”), 2016), with 702,000 of these reported cases substantiated, and 147,462 children receiving foster care services (HHS, 2016). Once a case has been reported and substantiated, Departments of Social Services (which go by different names in different states) can choose to immediately remove the child or to provide services to the family while the child remains at home. If they choose to remove the child from the home, youth are most commonly placed in foster care (Child Welfare Information Gateway, 2016).

While foster care was first developed to provide a short-term solution to child abuse and neglect by providing temporary housing for children and services to their parents—to reunify the family—the scope of foster care has changed over the years. The most common permanency goal for youth who enter foster care is to return to their biological parents, and for approximately half of the youth (51%), this is what happens (Health and Human Services, 2016). However, this goal is not attainable for all families. For some children, this means that they remain in foster care for many years. In 2016 there were 62,378 youth in care whose parents’ parental rights had been terminated and were waiting for adoption across the country (HHS, 2016). While terminating parental rights should not be done lightly or quickly, the tension between permanency and parental rights can leave children in the foster care system for prolonged periods. In an effort to address this issue over the past few decades, there has been a focus on reducing the length of time a child spends in care, and an increased focus on permanency, child safety, and overall child-wellbeing (Children’s Bureau, 2013). Some of the changes to address this have resulted in a decrease in the amount of time it takes for parental rights to be terminated (18 months to 15 months) and a shift to permanency planning—regardless of biological family involvement (Children’s Bureau, 2015).

Foster care was originally designed to meet the needs of young children who experienced abuse and neglect; moreover, it was not amended to fully address the needs of older youth until 1999 with the passage of the Foster Care Independence Act (Pub. L. 106-169). Older youth often face a different set of barriers to success than younger youth in care and often do not achieve permanency once their parents’ parental rights are terminated (Courtney, & Heuring, 2005; Pecora, et al., 2009). With the new focus on older youth in care, a unique paradox to the permanency driven foster care system has been created. As older youth in care do not achieve

legal permanency, there has been a shift to focus on relational permanency. This is defined as fostering healthy and meaningful connections with people in the child's life or helping them create new relationships with people in the community (Children's Bureau, 2013). While there has been an increase in providing unique services to older youth in care, far too many youth continue to leave the foster care system without establishing legal and/or relational permanence.

One major shift in foster care history was the passage of the 2008 Fostering Connections to Success and Increasing Adoptions Act (Pub. L. 110-351), which extended the eligibility for foster care services to the age of 21. At present, implementation of this act has occurred in over half of the states (NCSL, 2016). The requirements of extended foster care vary across states, some states require that youth must be attending school or working, but in others the requirements are less stringent. Youth may voluntarily elect to continue receiving services past their 18th birthday, but many do not elect to do so. Foster youth choose to leave care at 18 for a variety of reasons, but one of the more common reasons is a poor experience with the foster care system up to that point (Goodkind, Shelbe, & Shook, 2011; McCoy, McMillen, & Spitznagel, 2008). Youth have reported misinformation or no information about extended foster care, so they may not be making a well-informed decision (Goodkind, et al., 2011). For many foster care alumni, leaving the system and not relying on help is strongly tied to their adult identity (Berzin, Singer, & Hokanson, 2014). Many youth choose to leave care despite the growing research that staying in care past 18 leads to better adult outcomes (Courtney, et al., 2010).

Statement of the Problem

Every year around 25,000 youth age out of foster care in the United States (Adoption and Foster Care Analysis and Reporting System, 2015). A youth ages out of the foster care system when they reach the age of majority (18 or 21, depending on the state) and have not acquired

legal permanence. While the majority of older youth who enter care will eventually return to their family of origin, those who do not often experience roadblocks during their transition to adulthood (Courtney & Heuring, 2005). Adolescents often face a harder time finding foster homes and adoptive homes than younger youth in foster care (Courtney & Heuring, 2005; Pecora, et al., 2009). Adolescents make up 50% of youth in care, but only 20% of youth adopted (Pecora, et al., 2009), leaving many older youth to spend their adolescent years in the foster care system. Research has repeatedly shown that youth who age out of the foster care system (compared to their peers in the general population) are at an increased risk for variety of problematic outcomes (e.g., homelessness, low educational attainment, teen pregnancy, unemployment, incarceration, and substance abuse) (Courtney, et al., 2010; Berzin, et al., Courtney & Heuring 2005).

Although youth in foster care have been shown to be at an increased risk for many adverse adult outcomes, some youth who experience foster care go on to be successful adults (Haas & Graydon, 2009; Pecora, 2012). Both system-level and personal-level factors may contribute to the differentiated outcomes. Placement instability while in care, placement type (e.g. foster home, group home, residential facility), and access to and quality of services have all been shown to affect a youth's outcomes in adulthood (Courtney & Hughes-Heuring, 2005; Havlicek, 2011; Perry, 2006). Factors such as social support have been shown to both mediate and moderate the negative effects of foster care as youth transition to adulthood (Pepin & Banyard, 2006; Salazar, et al., 2011).

Study Context

Virginia ranks among the worst in the nation for the percent of youth who do not achieve permanency and who, therefore, age out of foster care (HHS, 2015). In 2014, 21.2% of youth in care reached the age of majority before achieving permanency in Virginia. Additionally, Virginia

has one of the longest wait times in the country between parents' parental rights being terminated and the child achieving legal permanency (adoption, guardianship) (Council on Virginia's Future, 2017).

To address this issue, in July of 2016 Virginia passed Fostering Futures, which allows youth to stay in care until age 21. However, there are many barriers to doing so, and the state is still working out the intricacies of extended foster care. Virginia provides an interesting, geographically diverse population of youth in foster care, many of whom are likely to age out of care with few formal supports.

Study Purpose

Foster care is, by definition, a social network intervention (Blakeslee, 2015). By removing a youth from their home of origin and placing them in a new home/network, with the main goal of safety, the foster care system is exposing them to new people and potential forms of support. Ideally, these experiences and supports help them during their time in care, and then a child returns home. However, if the youth does not return home or is not in a stable foster care setting, their foster care experience may cause prolonged instability in their lives and impact their ability to create and maintain relationships. Little is known about the development of and use of social networks as youth move into productive adult roles, such as employment and education. This dissertation aimed to inform policy and practice around the extent to which social networks support resilience and movement into productive adult domains (housing, education, employment, relationships, parenting) for transition-aged foster care youth.

Research Questions

This dissertation used the following research questions to guide the methodology and gain a better understanding of social networks among transition-aged foster youth. Since the research questions are largely exploratory, hypotheses are not provided.

1. What is the composition of social networks among transition-aged youth?
 - a) Who provides social support for transition-aged foster youth?
 - b) What types of support do they provide?
 - c) To what extent do the social networks of youth help them prepare for productive adult roles in key domains (i.e., housing, education, relationships, parenting, employment, transportation)?
2. To what extent are social network composition, development, and satisfaction related to experiences in the foster care system for transition-aged foster youth?
 - a) Do youth with longer tenure in care have more professional-intensive support networks?
 - b) Do youth with more placement instability while in care have less sufficient networks?
 - c) To what extent are youth satisfied with levels and types of support in their social networks?
3. To what extent do social networks affect access to and mobilization of social capital for transition-aged foster youth?

Implications

A better understanding of how social networks operate for youth transitioning out of the foster care system should suggest practice implications and inform new approaches to connecting youth to supportive people while they are in the system, allowing youth to navigate relationships as they transition out. By expanding the way social networks are conceptualized and assessed,

additional supports and youth-oriented services can be developed. Utilizing social networks increases the potential for relational permanency and informational, instrumental, appraisal, and emotional support as they transition from care.

Gaining a better understanding of the mechanisms within a social support network and the impact they have on supporting the development of productive adult roles and domains could be used to inform better services and programs for older youth in care. Social support has been shown to be both a moderator and mediator between maltreatment and adverse outcomes (Pepin & Banyard, 2006; Salazar, et al., 2011). By understanding the impact social support has on mitigating risks, policy makers could be influenced to increase resources for older youth leaving care in regard to mentorship, job training, and other networking opportunities.

Summary

Foster care is designed to be a short-term intervention in which children are removed from an unsafe environment, and parents and children are provided services (e.g. housing, therapy, etc.), with the ultimate goal of family reunification (Blakeslee, 2015). However, for some children and families, this does not happen. Parents sometimes lose their parental rights, meaning that the child's legal guardian becomes the state. Through this process, children then must find legal permanency through an adoptive family, long-term foster care, or relational permanency with foster families, peers, and biological families. However, for older youth in care, the odds of achieving legal permanency are much lower than for younger children in care (Pecora, et al., 2009). This often leaves older youth at risk for aging out of care without establishing a strong, permanent support network.

Chapter 2: Literature Review

Older Youth in Care

Youth Characteristics

Youth in care between the ages of 16 and 21 are considered to be transition-aged, and often differ from the broader foster care population on a number of individual and system-level characteristics. Older youth typically do not enter care until after their 15th birthday and are more likely to have experienced sexual abuse than youth who enter care at a younger age (Courtney & Barth, 1996; Lee & Berrick, 2014; Needell, Cuccaro-Alamin Brookhart, Jackman, & Shlonsky, 2002; Pecora, 2009). Once in care, older youth are likely to face system-level risk factors including: increased placement instability, placement in a congregate care setting (Lee & Berrick, 2014), and multiple foster care episodes (where youth left care and then had to return due to a failed reunification attempt) (Courtney & Barth, 1996). These individual and system-level risk factors often lead to older youth in foster care emancipating (reaching the age of majority) without achieving legal permanency.

Emancipating from Care

Services to prepare for adulthood. Prior to emancipating from care, older youth are required to take independent living classes. These are considered to be one of the main services to prepare older foster youth for independence. Independent Living Services (ILS) often take the form of classes about everyday skills, such as how to create a budget. However, traditional classroom-based ILS have been shown to be ineffective, contributing to youth leaving care without the needed supports and knowledge to succeed (Avery, 2010; Hook & Courtney, 2011;

Naccarato, & Delorenzo, 2008; Naccarato, Brophy, & Courtney, 2010; Nesmith & Christopherson, 2014).

Leaving foster care. Older youth in care have reported wanting to leave the system as soon as possible for a variety of reasons. Samuels and Pryce (2008) found that older youth in care wanted to leave the foster care system so they could lose their foster care identity and enter adulthood without ties to the system. Those same youth reported that they felt forced to grow up too fast but would leave the foster care system, in order to be self-reliant, even if it meant they did not know how they would provide for their basic needs, such as shelter. Youth in care report that they identify entering adulthood with leaving the foster care system and therefore do not want to remain in care past their 18th birthday (Berzin, Singer, and Hokanson, 2014, McCoy, McMillen, Spitznagel, 2008). Youth also report a general distrust and dislike of the foster care system leading them to exit care prior to being completely self-sufficient (Goodkind, et al., 2011).

In the past decade there has been a shift to focus on youth being inter-dependent, or leaving foster care and entering adulthood, while maintaining a close network of supports to help them along the way. However, foster youth still face adverse adult outcomes at much higher rates than their non-foster care involved peers, demographically matched peers, and peers who experienced abuse or neglect but remained with the family of origin (Berzin, et al., 2011; Mersky & Janczewski, 2013; Samuels & Pryce, 2008).

Adverse Adult outcomes

Youth who age out of the foster care system are shown to be at an increased risk for many adverse adult outcomes including: homelessness, low educational attainment, early pregnancy, substance abuse, and incarceration (Braciszewski & Stout, 2012; Bender, Yang, Ferguson, & Thompson, 2015; Berzin, et al., 2011; Brown & Wilderson, 2010; Courtney, et al.,

2010; Fowler, Toro, and Miles, 2009; Jones, 2011; Lenz- Rashid, 2006; Mersky, & Janczewski, 2013; Narendorf & McMillen, 2010).

Homelessness

Young adult homelessness. Young adults between the ages of 18 and 24 currently make up about 8% of the overall homeless population (Henry, Shivji, Souse, & Cohen, 2015); however, they also make up one of the most vulnerable populations of homeless individuals. There are several unique barriers and hardships that this younger population faces once they become homeless. Young adults are less likely to stay in a shelter and do not congregate in the same locations as older adults who are homeless, due to safety concerns (Henry, et al., 2015; National Alliance to End Homelessness, 2016). With 51% of minors who are homeless (18 and under) and 45.6% of young adults who are homeless (18–24) not sheltered, they are one of the most vulnerable homeless populations (HUD, 2015; The State of Homelessness, 2016). Research has also shown that the point-in-time homeless calculations do not adequately account for homeless minors and young adults, making it difficult to accurately provide services and understand the population. Young adults who experience homelessness are at an increased risk for victimization, drug use, prostitution, and increased mental health disorders (Dworsky, & Courtney, 2010; Dworsky, Napolitano & Courtney, 2013).

Foster youth homelessness. Youth who experience foster care face an increased risk for homelessness when compared to matched peers based on race, socioeconomic status, and education (Berzin, et al., 2011). Foster care alumni are over-represented within the homeless population. Youth who experience foster care are more likely to be homeless than youth who are at high risk for abuse and neglect but receive services in their home of origin (Park, Metraux, Brodbar, & Culhane, 2004). Among youth formerly in foster care, those who runaway or age out

of care experience homelessness at higher rates than youth who were reunified with their family (Park, et al., 2004). Former foster youth are also more likely to experience longer episodes of homelessness than other homeless individuals of the same age (Bender, et al., 2015; Berzin, et al., 2011). Subpopulations within the former foster youth population are more likely to become homeless than others. For example, former foster youth who are currently parenting are 2.1 times more likely to become homeless than youth who are not parenting (Doran, 2015). Youth who experience 4 or more congregate care settings are 1.8 times more likely to become homeless than youth who experience fewer congregate care placements, and youth with two or more foster care placements are 1.5 times more likely to experience homelessness than youth with fewer placements (Doran, 2015).

In the Midwest Evaluation of the Adult Functioning of Former Foster Youth (Midwest Study henceforth), 24% of former foster youth had experienced homelessness by the age of 21. Of those 24%, two-thirds experienced homelessness within six months of leaving the foster care system (Courtney, et al., 2010).

There are both system-level and individual-level factors that may increase the risk for homelessness among transition-aged foster youth. At the individual level youth in foster care are less likely to graduate high school or obtain a GED than their general population peers (Burley, 2001; Courtney, et al., 2010; Wolanin, 2005), and lack basic skills to obtain employment and have fewer people to rely on in their social network for housing and employment (Collins, Spencer, Ward, 2010; Nesmith & Christophersen, 2014; Singer, et al., 2013). These are all factors that limit self-sufficiency and the ability to afford adequate housing.

Housing instability. In addition to youth formerly in foster care who are currently homeless, studies estimate that between 25% and 50% of former foster youth are precariously

housed, or lack adequate housing arrangements (Berzin, et al., 2011; Bender, et al., 2015; Kushel, Yen, Gee, & Courtney, 2007). Youth in foster care report experiencing several moves after leaving foster care and experience more mobility than their non-foster care involved peers (Courtney, et al., 2010). Foster youth are more likely to report an inability to pay rent or report being evicted than their peers in the general population of the same age (Courtney, et al., 2010).

Educational Attainment

Earning a high school diploma increases a person's earning potential 33% over the course of their lifetime (Carnevale, Rose, & Cheah, 2014). For example, individuals with a four-year college degree earn 31% more than those with an associate degree, and 74% more than individuals with a high school diploma (Carnevale, et al., 2014). Completing high school and college both increase a person's chances of being financially secure and finding employment. However, current and former foster youth have been shown to complete high school at much lower rates than the general population.

Barriers to education. Youth in foster care face many system-level hurdles that may impact their ability to succeed in high school and beyond. Youth in foster care experience an average of four placements during each foster care episode, each time potentially having to change schools (Samuels & Pryce, 2008). Due to frequent placement changes, youth also experience high levels of school instability, with 34% of youth in care reporting five or more schools during their most recent foster care episode, with each school change requiring new paperwork to be filed, files to be transferred, and new relationships to be formed (Courtney, Terao, & Bost, 2004). Youth in care are often delayed in entering a new school or starting classes due to the system losing their transcripts or not having the correct paperwork to enroll (Day, et al., 2011; Legal Center for Foster Care and Education, 2008).

Achievement. Approximately 48% of youth who aged out of care had completed high school or obtained their GED at the time of discharge. This figure increases to only 54% two years after leaving the foster care system, at age 20 (Child Trends, 2014). The Midwest Study (2010) found that only three-quarters of youth had completed high school by the age of 23 and 6% had completed some form of post-secondary education. Former foster youth were more than three times less likely to have completed high school or obtained a GED than their non-foster care involved peers (Courtney, et al., 2010). The relationship between foster care involvement and educational attainment has mixed findings, with studies finding low educational achievement due to other factors such as teen parenting and poverty, regardless of foster care involvement (Berzin, 2008). Regardless of the cause of low educational attainment among foster youth, many continue to leave care without a high school diploma, and former foster youth without a high school diploma are significantly less likely to find employment than former foster youth with a high school diploma. Education is significantly linked with the ability to find employment, and impacts their ability to find stable housing, afford health insurance, and provide for a family.

Employment

Due to their lack of educational attainment, youth in foster care also have high rates of unemployment or underemployment (Hook & Courtney, 2011; Stewart, Kum, Barth, & Duncan, 2013). The Midwest study reports that at age 23 about half of men and women were either employed full or part time (Courtney, et al., 2010). Youth with foster care experience report several barriers to finding and maintaining employment including transportation, financial problems, and criminal justice involvement (Jones, 2011). While many former foster youth have a hard time finding employment, youth who have access to job training and services report that barriers to employment decrease. Lenz-Rashid (2006) found that former foster youth exiting a

job-training program gained employment at the same rate as their non-foster care involved peers, indicating that when connected to services some of the barriers to employment will decrease.

Early Pregnancy

Early pregnancy (ages 15–19) rates countrywide have slowly decreased over the past decade (Center for Disease Control, 2014). The Center for Disease Control and Prevention (2014) reports that a historically low number of babies were born to mothers between the ages of 15 and 19, at a rate of 24.2 per 1,000 women in this age group. This is a decline of 11% for women between the ages of 15 and 17 years old. While rates as a whole have declined, large disparities exist among the teen parent population. The rate for non-Hispanic Black and Hispanic teens is two times that of non-Hispanic White teens (CDC, 2016). Other conditions such as geographic location, socioeconomic status, and foster care involvement affect a teen's risk for pregnancy.

Young women in foster care experience early pregnancy at much higher rates than their non-foster care involved peers. Foster youth are two times more likely to become pregnant and give birth than youth not in foster care (Boonstra, 2011). In the Midwest Study by age 23–24, two-thirds of women reported experiencing a pregnancy since leaving foster care, compared to only half of the women from the National Longitudinal Study of Adolescent Health (with many reporting the pregnancy as unplanned), and 61% of men reported impregnating a female partner (Courtney, et al., 2010).

Substance abuse

Alcohol/drug use. Alcohol and drug use increases during adolescence for youth in foster care and youth in the general population (Braciszewski, & Stout, 2012; Hudson, & Nandy, 2012). There are mixed results on whether youth in foster care use substances and alcohol at higher

rates than youth in the general population. Wall and Kohl (2007) report that foster youth between the ages of 11–15 were less likely to use substances than their general population counterparts. However, by age 15–18, foster youth were using alcohol at similar rates to their non-foster care peers and marijuana at higher rates (Thompson & Auslander, 2007).

Alcohol/drug abuse. Similar rates of substance use are found among foster youth and their peers in the general population, but increased referrals for substance abuse treatment among foster youth have been found. The Midwest Study found that former foster youth at the age of 23 were considerably more likely to be referred to substance abuse treatment than their peers in the general population (Courtney, et al., 2010).

Incarceration

Former foster youth also face an increased risk for incarceration (Courtney, et al., 2010). In the Midwest study 40% of women reported an arrest before baseline data collection (participants were age 17 or 18 at baseline and includes life history up to that point) and by age 23; 19% reported being arrested since the age of 21. Additionally, 24% reported being incarcerated before baseline data collection, and 17% reported being incarcerated since the age of 21. The rates were much higher among males, with 60% reporting being arrested before baseline and 40% since the age of 21. Forty-three percent of males reported being incarcerated before baseline, and 40% reported being incarcerated since the age of 21 (Courtney, et al., 2010). Both men and women reported much higher rates of incarceration than their National Longitudinal Study of Adolescent Health counterparts. The Midwest Study did not include former foster youth who, at age 23, were currently incarcerated, making the overall number likely higher. Several states have found an overrepresentation of former foster youth in their

prison population; for example, California found that 28% of the inmates in 2014 had a foster care histories (McCarthy & Gladstone, 2011).

Resiliency Among Transition-aged Foster Youth

While extensive research has been done on the adverse adult outcomes that former foster youth experience, not all former foster youth go on to struggle in adulthood. A variety of protective factors have been shown to have a stronger influence in childhood, adolescence, and adulthood than risk factors (Werner, 1989), indicating that if protective factors are promoted throughout a youth's time in care, outcomes may improve. Resilience is commonly defined as the ability to develop competencies despite adverse life events (Burt & Paysnick, 2017; Luthar & Brown, 2007). However, foster care, by nature, is a disrupting traumatic event. A youth is removed from their previous support system, home, and neighborhood and put into a variety of settings with new rules and people. Having experienced trauma prior to entering the system, and then experiencing the added trauma associated with foster care, foster youth are forced to overcome a variety of adverse life events.

Domains for resiliency. Foster youth report several domains in which they identify as contributing to their resilience and success leaving care (Drapeau, Saint-Jacques, Leine, Bein, & Bernard, 2007). These include: relationships with peers, relationships with adults, personal characteristics and scholarly endeavors. Relationships with peers and adults both provide youth with support, social acceptance, and positive contact allowing the youth to be reflective and supported through adverse life events. Personal characteristics include things such as goal setting, sense of humor, and asking for help. Drapeau and colleagues (2007) report that most youth in the study had a pivotal moment including a new opportunity, meeting new people, or accomplishing

something that prompted them to continue on a positive route or change their behavior in order to overcome the obstacles they were facing.

In addition to the support given to an individual that promotes resilience, there are characteristics associated with being in foster care that may contribute to increased resilience among the population. Youth report that they learn to rely on only themselves due to being asked to perform adult roles earlier than they are developmentally ready to (Goodkind, Schelbe, & Shook, 2011; McCoy, et al., 2008; Samuels & Pryce, 2008). Youth also report wanting to be independent as a source of resilience that helps to overcome obstacles in finding employment, housing, and the negative stereotype they associate with being in foster care (Samuels & Pryce, 2008). Factors that contribute to resiliency for foster youth vary, but a common source is having a connection with supportive adults and peers, reinforcing the need for focusing on interdependence and supportive networks for foster youth (Cushing, Samuels, & Kerman, 2014; Drapeau, et al., 2007; Hass, Allen, & Amoah, 2014; Jones, 2012; Osterling & Hines, 2006; Samuels, & Pryce, 2008; Strolin-Goltzman, Woodhouse, Suter, Werrbach, 2016).

Social Support

One of the most important sources of resiliency among foster youth is having a strong social support network. Social support is defined as relationships with people that lead an individual to feel cared for and provide a sense of belonging to a wider social network (Cobb, 1976). Social support is available to an individual in both perceived (social support would be available if needed) and received (actual exchange of resources) support (Uchino, Bowen, Carlisle, & Birmingham, 2012). Support can occur in many forms including emotional (someone to listen to), instrumental (tangible aid), informational (advice), or appraisal (constructive criticism) (Cohen & Willis, 1985). Social support is widely studied and has been shown to be

related to a range of domains (e.g., physical health ([Berkman, & Syme, 1979; House, Robins, & Metzner, 1982; Holt-Lunstad, Smith, & Layton, 2010], mental health [Lakey & Cronin, 2008; Pierce, Lakey, Sarason, & Sarason, 1997], and mortality [Berkman, & Syme, 1979; Holt-Lunstad, et al., 2010; House, et al., 1982]). Social supports can also be broken down into two types, formal support, (i.e., support from service providers) and informal supports (i.e., supports from family and friends). Informal social supports are often referred to as natural support systems, because they are systems that the individual is already connected to and are posited to have a positive impact on overall well-being (Hirsch, 1980).

Models of Social Support

There are two primary models of social support that dominate social science research (Cassel, 1974; Cohen, & Willis, 1985; Dean, & Lin, 1977; Holt-Lunstad, et al., 2010; Lakey, & Orehek, 2011; Pepin & Banyard, 2006; Salazar, Keller, & Courtney, 2011; Vaux, 1988). In both models, social support helps to improve an individual's well-being, but the mechanism for doing so is different. Support for both models can be found, depending on the questions asked and variables measured. The *stress-buffering model* focuses on the protective effect social support can have in a stressful situation and the *main effect model* focuses on the threshold at which social support promotes well-being (Cohen & Willis, 1985).

Stress-buffering model. One of the most widely studied models of social support, the stress buffering model, posits that risk factors increase a person's risk for disease are related to poor feedback from their social environment (Cassel, 1976). Cohen & Willis (1985) posit that social support can play a role in buffering the negative impact of stressful life events at two points in time: between a stressful event and a stress reaction, and between the experience of stress and the outcome (Cohen & Willis, 1985). In other words, when people perceive the

support of others, it may prevent or lessen the harm posed by a situation, or if the stress response has already occurred social support can alleviate the negative impact of the stressor (Cohen & Willis, 1985). Using the stress-buffering model, it is hypothesized that while people may have social support all the time, the positive impact only occurs when a person is faced with a stressful life event (Cassel, 1975; Cohen & Willis, 1985). Research has concluded that social support does mitigate the negative impact of life stress (Cohen & Willis, 1985). By increasing the available social support a person has, the impact of life stress decreases. This is not to say that someone can avoid life stress, but the negative impact can be mitigated (Cassel, 1976; Cohen, Underwood, & Gottlieb, 2000).

Main effect model. The main effect model posits that social support and resources can be beneficial to a person regardless of stress or other life events that may be taking place (Cohen, et al., 2000). Regardless of the external events happening in a person's life, being embedded in a social network is thought to increase one's sense of purpose, pride, belonging, and self-worth thus positively impacting health outcomes (Cohen, et al., 2000). Studies that support the main effect model usually measure a person's integration in a large social network and evaluate how the social structure is built and functions (Cohen & Willis, 1985).

Social Support and Well-being in Adults

Mortality. Many studies have examined the relationship between perceived social support and mortality related to illnesses (Berkman, & Syme, 1979; Holt-Lunstad, et al., 2010; House, Robins, & Metzner, 1982). The consensus among these studies is that after controlling for risk factors such as blood pressure, smoking, and cholesterol levels, a healthy person with more social support experiences a decreased risk for mortality compared to more isolated peers. In a meta-analysis of 148 studies examining the relationships between social support and

mortality, Holt-Lunstad and colleagues (2010) found that participants with strong support networks were 50% more likely to survive an illness—such as cancer—than their less connected peers. This effect held true across age, sex, cause of death, and initial health level. This is comparable to other protective factors for mortality, such as smoking cessation. The evidence suggests that social support plays a protective role against illness related mortality, but the exact relationship remains unclear. A clearer understanding is still needed on the point in time that support is experienced (pre-illness onset, during illness, or in recovery) as well as the best way to measure social support (Cohen, 1988; 2010; Uchino, Bowen, Carlisle, & Birmingham, 2012).

Morbidity. Research shows that social support not only prevents mortality related deaths but may also prevent certain illness. Holt-Lunstad, Uchino, Smith, Olson-Cerny, & Nealey-Moore (2003) report that people experienced the lowest ambulatory blood pressure when talking with family and close network members and the highest when talking with acquaintances or tangential network members. Additionally, studies have documented that people with more social support are more likely to receive preventative screenings for heart disease, blood pressure, and cholesterol than their more isolated peers (Berkman, et al., 1992; Coyne, et al., 2001; Holt-Lunstad, et al., 2003; Raikkonen, Matthews, & Kuller, 2001; Uchino, 2009).

Mental health. Most studies examining the relationship between depression and social support have found a main effect, meaning that there is a direct relationship between lower perceived social support and risk for depressive symptoms (Lakey & Cronin, 2008). Research shows that persons who experience increased social support are more likely to have higher self-esteem, social belongingness, and happiness than those who are more socially isolated (Pierce, Lakey, Sarason, & Sarason, 1997; Vaux, 1988).

Social Support and Well-Being in Children

Children experience social support differently from adults but report a positive impact of increased social support on a number of health outcomes. Parents are the first source of social support and are responsible for providing for the emotional and physical needs of small children. The two main sources of support for youth are their family and peers.

Family. Social support from one's family of origin has been shown to be a strong protective factor against depression (Auerbach, et al., 2011; Colarossi & Eccles, 2003; Rueger, et al., 2008; Stice, Ragan, & Randall, 2004). Generally, higher levels of social support from parents has been shown to decrease levels of depression and increase school adjustment and self-esteem among youth (Colarossi, & Eccles, 2003; Rueger, et al., 2016). In a meta-analysis of 341 articles Rueger and colleagues (2016) found support for the main effect model of social support, or that the presence of social support lowered youth depression for both boys and girls, with support from family members having the largest effect, and teachers and peer groups having a significant impact as well.

Peer group. The role of peer groups has been mixed, with some studies showing youth with higher perceived social support from peer groups having lower levels of depressive symptoms (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005; Klima & Repetti, 2008) and others showing no relationship or higher levels of depressive symptoms (Kerr, et al., 2006; Rueger, et al., 2010). These mixed findings may be attributed to the differing ways in which studies have defined peer groups. In some studies peers are defined as friends and classmates and in others the two categories are distinct. This difference in definition may lead to mixed findings since it has been shown that friends and classmates provide differing levels of social support to youth (Demaray, et al., 2005).

Social Support and Child Maltreatment

The impact of family and peer social support on youth has been studied in the general population. However, youth who enter the foster care system are removed from their family of origin and often lose contact with their peers in the neighborhood and school. This may cause social support among youth who have experienced maltreatment to look different and/or function differently than it does in the general population of youth. Levels of overall perceived social support are lower among people who have experienced maltreatment than for young adults who have not experienced maltreatment (Pepin, & Banyard, 2006). However, for both groups (maltreatment and not maltreatment) a higher level of perceived social support was associated with a higher level of developmental outcomes. Indicating that youth who experience maltreatment may have lower levels of perceived social support, but the presence of social support has the same impact on them as it does in the general population, reinforcing the importance of making sure older youth in care do not age out without a support network.

Type of maltreatment. Social support is likely to look different among maltreatment survivors based on the type of maltreatment they experience. Runtz and Schallow (1997) found that youth who experience physical maltreatment have low levels of social support and thus low levels of adult adjustment. Gold (1986) found that women who experience sexual abuse have lower levels of social support than the women who were not victimized as girls. Survivors of childhood sexual abuse who reported higher levels of perceived social support from family also reported fewer feelings of hopelessness and being forced to grow up too fast than sexual abuse survivors with lower levels of social support (Murthi & Espelage, 2003).

Frequency of maltreatment. The type and frequency of maltreatment has also been shown to impact the relationship between child maltreatment, social support, and psychological

outcomes. A study of 100 women who had experienced multiple forms of abuse found that high levels of social support mediated the relationship between multiple maltreatment types and PTSD, but not multiple maltreatment types and depression symptomatology (Vranceanu, Hobfoll, & Johnson, 2007). However, Vranceanu and colleagues (2007) also found that experiencing multiple maltreatment types increases a woman's risk for deficiencies in their social supports and increases their chances for other stressors. Salazar and colleagues (2011) found that social support had a stronger impact when fewer types of maltreatment had occurred, but as maltreatment experiences increased, social support had less of a buffering effect on developing depression.

Transition-aged foster youth and Social Support

When a child is removed from the home, they lose contact (at least temporarily) with a previous network of people—family, peers, and teachers. They often move neighborhoods and schools and experience, on average, four placement changes while in care (Courtney, et al., 2010). This change in social support is often out of the control of the youth but has an impact on their well-being. Evidence suggests that foster youth who experience multiple breaks in social support networks face increased psychological problems, such as depression (Blakeslee, 2015; Perry, 2006).

While foster youth face additional hurdles to having a strong social support network, most report having a support network they can rely on when they need advice or help (Courtney, et al., 2010; Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001). Research shows that foster youth report a desire to stay connected to past support networks, such as their biological family, once they are in care (Cushing, et al., 2014; Jones, 2013; Singer, Berzin, & Hokanson, 2013). Perry (2006) found that youth who were embedded in more than one support network (i.e. foster

family and biological family) had better outcomes than youth who were only involved in one network. Additionally, foster youth report having both formal supports (case workers, therapist) and informal supports (family, friends) that they can rely on for support when needed (Blakeslee, 2015; Greeson, Garcia, Kim, & Courtney, 2015; Jones, 2013; Singer, Berzin, & Hokanson, 2013).

Former foster youth report mixed outcomes of social support (Day, Reibschleger, Dworsky, & Damashek, 2012; Goodkind, et al., 2008; Singer, et al., 2013). While many youth report having a support network and being able to rely on them for emotional and financial support (Jones, 2013), others report not feeling like they can rely on their support network (Day, et al., 2012). Some youth report not having someone to talk to or a safety net when they leave care (Geenen & Powers, 2007; Samuels & Pryce, 2008). Other youth report that having relationships with so many professionals (therapist, caseworkers, etc.) that end when they leave care, leave them feeling isolated and unsupported (Hiles, Moss, Wright, & Dallas, 2013). Former foster youth who leave care with a strong support network are more likely to pursue post-secondary education, find employment, and housing than foster youth who leave care without a support network (Hass, et al., 2014; Jones, 2012; Lenz-Rashid, 2006).

Gaps in Social Support Research

Social support research includes many domains, and studies often measure social support differently. The constructs of social networks, social support, and social integration are all separate constructs, but are often put together in the broader social support literature making generalized conclusions about the effectiveness of social support difficult (Holt-Lunstad, et al., 2010). For example, when measuring perceived social support, the density of a social network is often examined. While this approach allows us to understand how many people the individual is

connected to, it tells us little about the amount of social support available (Holt-Lunstad, et al., 2010). In their meta-analysis, Holt-Lunstad, Smith, and Layton (2010) found that the association between social support and mortality was strongest for those studies using a multidimensional measure of social integration and weakest for those using a binary indicator for living alone versus with others. Due to the lack of consistent agreement on the specific definition of social support and measurement approaches, studies vary in their findings.

Another pitfall of the social science literature on social support is the differentiation between actual and perceived social support. Actual social support is much easier to measure and account for and is often done so by counting network members (Vaux, 1988). However, the perceived social support these network members provide is a different construct that is often wrapped in with the number count. The perceived aspect of social support is not always defined the same across social support literature making final conclusions hard to come by (Vaux, 1988).

Directions for Future Research

There is an extensive body of literature on the relationship between social support and health outcomes. Within this research there is a need to better understand the mechanisms by which social support is developed and how this may affect constructs such as happiness and acceptance (Vaux, 1988). Using a multi-dimensional view of social support that clearly defines and measures social networks, perceived supportive behaviors, and resources will allow for a more holistic view of support and the mechanisms through which people develop, use and benefit from it.

Previous research has examined both the direct and indirect effects of social support on adult physiological outcomes, but fewer studies have examined the impact of social support on positive adult domains (housing, education, employment, etc.) Filling this knowledge gap could

help to influence interventions of social support for older youth aging out of foster care and provide a better understanding of the impact social support can have on positive adult outcomes.

Youth Participation

Youth voice. In the United States youth have few legal rights or voice when it comes to deciding their future. Youth cannot vote or legally provide consent for many services across the country. Therefore, when youth come into the foster care system, their rights are severely limited. When youth enter the foster care system, they often do not get a say in where they want to live, what services they receive, or whom they get to visit with (Bijleveld, Dedding, & Bunders-Aelen, 2013). Youth in foster care are often not made aware of their rights both within the foster care system and the larger society. Social workers have reported that active participation of youth is not a fundamental right of youth in child welfare, but a privilege given to some (Vis & Thomas, 2009). This lack of knowing their rights often leaves youth feeling as though they lack control over their life and do not get to play an active role in deciding their future (Bijleveld, et al., 2013). The process can be very disempowering and inhibit a young person's ability to advocate for themselves and their needs.

Barriers to youth voice in child welfare. When youth enter the child welfare system, they go from having one or two adults making decisions about their life to having an entire team of people, with potentially conflicting interests, making decisions about their life (Bijleveld, et al., 2013). Foster care workers are responsible for coordinating what is in the best interest of the child with all team members and can often feel pulled between the immediate and long-term needs of the child (Bijleveld, et al., 2013). This tension may cause the foster care worker to overlook possibilities or opportunities to involve youth in their case planning (Bijleveld, et al., 2013). Youth often report a fear to voice their opinion in child welfare proceedings because they

do not know how the different adults will react to the information. They report fearing that they will lose control over the situation if they confide in adults about what is going on (Sanders & Mace, 2006).

Benefits of youth voice. Research has shown that when youth in foster care, especially older youth in foster care, get to play an active role in their case planning and goal setting, they experience higher satisfaction with their foster care experience and better long-term outcomes (Nesmith & Christophersen, 2014; Scannapieco, Connel-Crrick, & Painter, 2007). Playing an active role in case planning may involve allowing the youth to lead meetings, prepping the youth before the meeting on what will be covered and giving them a chance to add items to the agenda, and making sure the youth feels comfortable with the people involved in the meetings (Nesmith & Christophersen, 2014; Scannapieco, et al., 2007). Through this process youth also learn valuable communication skills, self-advocacy skills, and build stronger relationships (Nesmith & Christophersen, 2014).

Part of the youth empowerment approach allows youth to identify supportive adults they feel should be involved in their case and transition team planning. Most youth report having adults and peers that provide them support in various ways, but these adults may not be involved in their established support networks (Cushing, et al., 2014). Given the increased outcomes for youth when a youth participation model is used (Nesmith & Christophersen, 2014), it is important to learn from these young people about who they want to be involved in their social networks and what types of support different people provide. It is especially important to understand how relationships are impacted by the foster care system in order to help facilitate new or work to foster existing relationships.

Policy Background

Youth in care are impacted by the policy context of the country and the state in which they are placed. Foster care looks different across the country with differences in access, quality of services, and implementation of services. Youth who live in a state where there is not extended foster care are forced to leave care at 18, while youth who live in a state with extended foster care are allowed to remain in care until 21, but with varying degrees of requirements. It is also left to the states to decide who administers foster care services, the individual counties or the state system. Currently nine states are county administered states, which allow localities to have more discretion in providing services than more centralized, state administered child welfare systems (Child Welfare Information Gateway, 2012). Over time the federal policies and guidelines have changed and expanded to increase services and requirements for older youth in care, to focus on youth being active participants in their case planning and involving more supportive adults to help the youth during their transition out of care. Child welfare policies are covered under the Social Security Act as well as other federal legislation.

The original Social Security Act of 1935 had several provisions related to the well-being of children and the prevention of abuse and neglect. The Act allocated money to be given to public child welfare agencies to strengthen the state's ability to provide needed services to children. In 1988 Title IV-E was expanded to offer services to transition-aged foster youth who were 16 or older and enrolled in an Independent Living Program for up to 6 months after leaving care (Children's Bureau, 2012a). This was the start of the focus on transition-aged foster youth and the unique services older youth need as they leave care.

In 1999, the Foster Care Independence Act revised and renamed the Independent Living Program to the John H. Chafee Foster Care Independence Program (CFCIP) giving greater

autonomy to the states to provide programs to youth and doubled the allocated money to do so. The CFCIP was amended in 2002 to include Education and Training Vouchers to help youth between 18 and 21 years of age who aged out of care complete some form of educational training (Children's Bureau, 2012b). The act also mandated that states begin to track the services and outcomes of older foster youth currently in foster care and once they leave care up to age 21.

The last major Title IV-E policy shift for older youth in care came in 2008 with the passage of the Fostering Connections to Success and Increasing Adoptions Act of 2008 (FCA). The law allows states, starting in 2011, to use Title IV-E funds for youth up to their 21st birthday who are in a supervised independent living situation. The FCA provides funds to the states for youth still in foster care between the ages of 18 and 21, who are enrolled in high school or postsecondary education, who are employed, or have a disability inhibiting them from working or attending school. This legislation also influenced the way youth prepare to transition out of care. Foster care workers are now required to create a plan with the youth regarding their future. This change allows for more youth voice in the system, potentially creating more space for youth to advocate for services and relationships they need before aging out of care. However, more still needs to be done to ensure that youth are active participants in planning for their future.

The Preventing Sex Trafficking and Strengthening Families Act (2014) allows youth to bring up to two adults that they have identified as supportive to be a part of all treatment team meetings, allowing the youth to have a stronger voice in the process and for supportive relationships to be fostered. This change in policy shows the shift to relational permanency and trying to find youth supportive networks prior to leaving care but continues to fall short. Many youth report experiencing an abrupt cut in relationships and services needed to make the transition to adulthood (Goodkind, et al., 2011). A focus on maintaining relationships and

extended foster care may help to avoid this but is likely to require changes in the way older youth in care are treated. In a recent study of youth who left care at 18, the majority reported leaving due to misinformation or no information regarding their ability to stay in care (Goodkind, et al., 2011).

Recent child welfare legislation has been influenced by many different theoretical developments. There has been a shift to interdependence largely due to the increased age young adults are entering adulthood. There has been a shift to developing stronger social support networks due to the increased knowledge of the importance of relationships. Lastly there has been renewed interest in promoting resiliency and understanding risks among the foster youth population.

Theoretical Framework

Emerging Adulthood

Since the early 20th century there has been a shift in the age that young adults enter the workforce, get married, and become self-sufficient (Furstenberg, 2015). More young adults equate adulthood with financial security and living independently than with being married and having children (Cohen, Kasen, Chen, Hartmark, & Gordon, & 2003; Furstenberg, 2015). A shift in the labor force to more skilled and educated workers has made a college education more important than ever for finding a job, often meaning that young adults stay at home longer and rely on their parents for financial assistance well into their 20's (Avery & Freundlich, 2009; Furstenberg, 2015). While there are variations in the timeline for transiting into adulthood, in most demographic subgroups the age has increased and expanded (Cohen, et al., 2003; George, 1993; Goldscheider, Thorton, & Young-DeMarco, 1993). Some theorists posit that this prolonged life stage is not a life stage, but rather a developmental period—Emerging Adulthood

(Arnett, 2000). Arnett argues that due to the distinct developmental characteristics of emerging adulthood, it is not part of adolescence or young adulthood (Arnett, 2007).

There are distinct developmental changes that occur during this time period, including emotional, cognitive, and behavioral domains. The emotional domain includes establishing intimate relationships and gaining autonomy from one's parents (Arnett & Taber, 1994; Avery, & Freundlich, 2009). The cognitive domain includes tasks such as adult reasoning and developing a sense of responsibility. Lastly, the behavioral domain includes things such as impulse control (Arnett & Taber, 1994; Avery & Freundlich, 2009). These developmental changes impact the decision-making process, and are found across youth from different backgrounds, geographical locations, and races (Arnett, 2007).

Foster youth and emerging adulthood. While many young adults are taking longer to enter adulthood and are relying on support networks to help them both emotionally and financially during the transition, foster youth often do not have the same luxury. When youth age out of the foster care system they often do so without the needed supports to be financially independent, cutting emerging adulthood short and forcing them into adulthood sooner than their peers in the general population (Avery & Freundlich, 2009). Foster youth report experiencing emerging adulthood, but not positively like their peers in the general population report. Berzin, Singer, and Hokanson (2014) found that foster youth often experience the same tenants of emerging adulthood but may view them differently. For example, former foster youth reported that they experience instability in their transition but did not view it as a positive thing as discussed in the broader emerging adulthood literature. Arnett (2007) discusses instability as a positive experience that leads to self-discovery where a young person experiences diverse living arrangements with different roommates, living in the dorm, and moving frequently to discover

oneself. Former foster youth reported unstable housing as a frequent and large stressor, never feeling rooted and in constant fear of having to figure out a new living arrangement (Berzin, et al., 2014).

Social Capital

Discrepancies among the founding theorists of social capital have led to different conceptualizations and measurement of social capital (Bourdieu, 1992; Coleman, 1988; Putnam, 2000). For this dissertation Bourdieu (1992) and Lin and Erickson (2001) provide the basis for both the definition of social capital and the measurement approach. Bourdieu (1992) defines social capital as “the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network” (p. 119). Lin and Erickson (2001) provide the specific aspects of social capital to be measured using the network approach (discussed in detail below). However, to better understand this perspective and alternatives, below is a detailed discussion of the major theorists of social capital and how their conceptualizations differ.

Coleman. Coleman (1988) argues that social capital is defined by its function, and includes the ability to create meaningful, mutually beneficial relationships (Coleman, 1988). Unlike other forms of capital that are private goods, such as economic or human capital, social capital is thought to be a public good, because it only exists between people, one cannot have social capital in isolation from others. Coleman (1988) discusses social capital as a resource available to youth from the start. Coleman (1988) argues that children are born into a family, and that family is embedded within a larger community, and that community is embedded in a larger society, and so forth. Coleman (1988) argues that for a child to benefit from the family’s social capital the family must be embedded in a larger community. Coleman (1988) provides the example that if a parent is educated and has a prestigious job (high human capital), but that parent does not take

the time to help the child with their homework or general everyday activities, that child will not benefit as much from their parent's human capital. The family must also be embedded in a larger community for the child to fully benefit from and have access to social capital.

Putnam. Putnam defines social capital using a collective action approach. Putnam (1995) focuses on trust, norms and civic engagement within social networks as the main sources of social capital. Putnam (1995) argues that civic engagement may include political participation, but also refers to the broader connections one has with their community and society. Putnam (1995) claims that regardless of education, income, race, sex, or location, people who are more likely to trust others are also more likely to join groups (i.e. political groups, community group, etc.). Civic engagement according to Putnam (1995) requires people to establish norms and trust in order to become a member of the group. He continues on to say that society must have civic engagement where people are active in networks and this activity extends to political participation. According to Putnam (1995b) social capital is accessible to everyone based on their willingness to join groups and trust others. Therefore, an individual that has social capital, according to Putnam, would belong to a number of civically engaged groups, churches, school groups, community groups, and political participation groups. Through these group memberships the individual would gain access to social capital and be able to mobilize the resources that these civic engagement expose the individual to.

Putnam (1995b) also distinguishes between bonding ties and bridging ties. Bonding ties are connections within one's group. Bonding ties bring the group closer together and help to create norms and trust. Bridging ties are the connections people have to other groups. Bridging ties help to connect smaller networks to the larger network and expose members to new information. Bonding social ties refer to closed networks, where everyone in the network knows each other

and there is a strong sense of trust and reciprocity among the relationships. Bonding social capital aligns well with Coleman's (1988) definition that focuses on the need for network closure in order to facilitate social capital. This may be true for his example with children, in that children may benefit from a closed network and close relationships. However, a closed network of close relationships may not be good for that child once they are a young adult looking for a job. Putnam (1995) introduces bridging social capital as a way to expand the resources of the group. People who are bridgers are connected to multiple networks. This allows for new information and resources to flow in and out of the group, a process that is less likely in a closed network.

Bourdieu. Bourdieu (1992) defines social capital from the perspective of the individual, stating that social capital is a result of the resources found in an individual's social network. Bourdieu (1992) discusses social capital as a class-based resource that depends on where the individual is situated within society. Bourdieu (1992) argues that peoples' position in society gives them access to different social networks. People who are powerful or wealthy can make social networks that have more resources in them than people who are not powerful or wealthy. For Bourdieu (1992) social capital is not the result of the overall quality of the network but relies on the quality of the individual ties between people. In other words, if the person is not embedded in the network they will not be able to mobilize their social capital and gain the resources that one might have. Therefore, to have social capital, according to Bourdieu, one must create a network of powerful people and maintain relationships with the people in the network.

Social capital and inequality. Coleman (1994, 1988) and Putnam (1993, 1995) argue that social capital is a public good that is available equally to all members of society. The resources embedded in a network are open to all network members, regardless of that member's ability to

promote or contribute to the group, thus creating an equal opportunity to create social capital (Coleman, 1994). On the other side of the debate, Bourdieu (1992) and Lin (2001) argue that because social capital is a public good, inequalities can occur among people in their access to and mobilization of social capital. Bourdieu (1992) argues that social capital can be used to further create these inequalities within society, and that based on one's position in society there are inequalities in both access to and mobilization of social capital.

If both the access to social capital and the mobilization of social capital is influenced by one's position in society, youth who are not embedded in powerful, wealthy networks are left with a social capital deficit. People may experience two types of deficiencies associated with social capital (Lin, 2001). The first is a capital deficiency in which people experience differential access to the process by which social capital is developed, resulting in a shortage when compared to other groups. Capital deficiency claims that different social groups are given different opportunities to develop social capital because of their positions in society. Lin (2000) provides the example that based on the labor market and economy of most societies favoring men over women, families when forced to choose, will often invest more capital in male children than female children, due to the social structure and limited resources. The other is return deficiencies resulting when a given quality/ quantity results in a different outcome for one group compared to another or a differential mobilization of social capital. Lin (2000) provides the explanation that even when men and women have the same quality and quantity of social capital they are still likely to experience different gains based on social capital, such as increased wage or higher prestige within the company.

Social capital and foster youth. There are varying degrees of social capital available to a person based on their position in society (Bourdieu, 1992; Lin, 2002; Putnam, 1995). This

perspective lends itself to better understand how foster youth may be at a disadvantage for developing and mobilizing social capital. The transition to adulthood is a time of uncertainty and instability, where youth change residence often, move jobs, and try to create an identity for themselves (Arnett, 2000). During this time youth often rely on their social capital to help them find employment, housing, and further their education. The people in their social networks may help them find a new career and connect them to people they should meet, or they provide a couch or spare bedroom to stay in when the youth needs a new place to live. However, this luxury is not afforded to everyone during emerging adulthood (Avery & Freundlich, 2009).

Foster care is designed to temporarily remove a child from their home and establish social networks in order to provide services to the family with the goal of returning the child once the environment is safe. This means that foster youth are embedded in many different networks (biological families, foster families, schools, communities), but these networks may have differential access to social capital. Due to the fact that relationships take time to build, foster youth often have to rebuild their social capital every time they are moved, an average of four times per foster care episode (Courtney, et al., 2010). For many foster youth, this means they experience a differential access to social capital and are not afforded the opportunity to create lasting relationships that can help them during life transitions. However, when foster youth are afforded the opportunity to build relationships and create social capital, it has been shown to improve adult outcomes (Avery, 2010; Perry, 2006).

While many studies have examined the differential access to social capital that foster youth experience (Avery & Freundlich, 2009; Berzin, et al., 2011), fewer studies have examined the effects of social capital when mobilized for foster youth transitioning out of care. However, social capital among foster youth has been shown to impact financial, housing, and

psychological outcomes as youth leave care and enter young adulthood (Curry & Abrams, 2014; Hook & Courtney, 2011; Kerman, Wildfire, & Barth, 2002). Kerman, Wildfire, and Barth (2002) report that youth who leave care with strong ties to caring adults and peers experience better developmental outcomes than those foster youth who left care without a support network. Hook and Courtney (2011) report that foster youth who reported increased social capital experienced better financial outcomes than those youth who did not. Youth who reported having a strong peer and adult network reported relying on this network to avoid homelessness during the transition to adulthood (Curry & Abrams, 2014; Perez & Romo, 2011), further indicating the importance of a diversity of relationships available to youth.

Measuring social capital. Due to the competing theoretical conceptualizations of social capital, there are also competing thoughts on how to measure social capital. Scholars who prescribe to the school of thought of Coleman (1994) or Putnam (2000) measure social capital as an aspect of civic engagement and participation in community events. However, this approach to measuring social capital assumes that people are already embedded in networks and potentially misses the fact that people with stronger social capital are also more likely to be active participants (Condon, Lavery, & Engle, 2015).

Scholars who take a network-based approach to measuring social capital do so in two different ways, relational approaches to social capital and individualized approaches to social capital. Scholars such as Lin (1999) treat social capital as a collective property resulting from a social network. This approach often focuses on measuring trust and shared expectations among the network members. Bourdieu (1986) presents the individualized approach to social capital but maintains that social capital cannot be measured without looking at the social context. This is because the extent to which the individual has resources from social capital is dependent on their

connections. Scholars who take an individualized network approach to measuring social capital focus on the resources that an individual gains from their social network (Lin & Erickson, 2001). This often involves having participants list out everyone in their network and then asks a series of questions about those people to capture their employment, and other characteristics. These characteristics are used to place network members within societies hierarchy based on employment and income. Another commonly used approach is to have participants list out how many people in various domains (housing, employment, education) that would provide support if needed, which allows for an overview of the resources available in their network.

Social Capital as Social Networks

While there are discrepancies across social capital definitions, one thing the major social capital theorist all discuss is the importance of social networks an individual is embedded in. Without interacting with other people, one cannot have social capital, indicating that social networks are imperative to both accessing and mobilizing social capital. All theorists discuss the importance of relationships with other people as the basis for social capital. Coleman (1988) and Putnam (1995b) both discuss relationships, but both presume that everyone has equal access to social capital as a result of their relationships. Bourdieu (1992) discusses the resources that are a result of relationships, and the inequality that can result from differences in one's social network. Building from Bourdieu's (1992) concept of social capital Lin (1999) introduces a network theory of social capital. Lin (1999) argues that throughout the social capital debate the importance of social networks is found. These networks provide information, influence, and identity reinforcements that enable an individual to mobilize their social capital to achieve something (Lin, 1999). Lin's conceptualization of networks as social capital provides a bridge between the different definitions discussed above. Regardless of if the focal point is the

individual or entire group, social capital requires individuals to be embedded in social networks to access and mobilize available resources.

Lin (1999) diverges from Bourdieu and Coleman on the discussion of network closure. Bourdieu and Coleman both argue that networks need to be closed, with clear boundaries of who is in the network and who is not. However, Putnam (1995b) and Lin (1999) argue that people whom bridge networks may serve a critical role in expanding social capital. Within Lin's (1999) conceptualization of social capital, he provides a connection to the broader literature on social networks and the importance that weak ties and structural holes have in obtaining new resources within a social network.

Strength of weak ties. In a social network, there are many different ties between people that depend on the strength and type of relationship between the individuals. Granovetter (1973) posits that the stronger the tie is between two people, the more likely they are to have overlapping connections; however, the weaker the tie between two people, the more likely that new ideas and connections can be made. An emphasis on weak or distant ties allows for the boundaries of social networks to be expanded. A weak tie, or bridging tie, is one in which a person is connected to someone that is not connected to any of their other connections (Granovetter, 1973). This allows for new information to be shared and networks to be expanded, and for foster youth this theory is especially relevant. Foster youth are likely to be embedded in multiple networks (peers, bio family, foster family, multiple schools) where the people they know might not know each other. However, the more weak ties someone has the more exposure to ideas and opportunities they have, possibly giving foster youth a way to use their weaker ties to help them find a job or other resources as they enter young adulthood.

Structural holes theory. A related theory is Burt's (1992) structural holes theory. Burt (1992) focuses on the information that is transmitted through a social network. The more connections an individual has that are not connected to each other the less repeat information an individual receives. This non-redundant information helps to share ideas and create new connections (Burt, 1992). These two theories as well as social capital guide the social network discussion below (Borgatti & Lopez-Kidwell, 2011).

Social Network Theory

The strength of weak ties theory and structural holes are two early network theories. Social network theory allows for a better understanding of the way networks are created and the importance of different ties. There are many examples of network theory that have contributed to the recent body of literature on social network theory. The way one builds their social network is likely to differ across groups and the importance of the individuals differ from person to person.

What is network theory? Network theory aims to provide the underlying assumptions about social networks. Social networks create access to social capital by connecting people to others and their resources, for that reason the discussion of social network theories, will focus on theories rooted in social capital. Social networks also help to mobilize social capital by creating bonds and trust among individuals so that people in their network support and help one another. Network theory examines the structure of the network as well as what happens between people—the tie structure, what passes through the ties, and the strength of the tie. Network theory focuses on many structural elements of a social network. To gain a better understanding of the key concepts and definitions see Table 1.

Table 1: Social Network Key Concepts and Definitions	
Term	Definition
Mutuality	If the relationship is bidirectional. A person gives and receives support vs. a person just giving support
Connectivity	Paths are the venue through which information passes. Connectivity looks at the number of paths between network members.
Homophily	The tendencies for people to associate with others who are like them. People in a network are often similar.
Density	Number of actual connections between people divided by the number of possible connections between people
Structural holes	Gaps in networks where the ego (focal individual) knows person A and B but Person A and B do not know each other
Strength of ties	How strong the relationships are between the individual and each member of their network (ex. best friends, acquaintances)
Multiplexity	A relationship between two people that involves more than one relational type (i.e. someone who provides two types of social support)

Network theory debate. One of the misconceptions and criticisms about social network analysis (SNA) and network theory is that it is just a methodology that is good at describing things, but has no theoretical backing (Barnes, 1972; Borgatti, et al., 2014). However, over time there have been several theoretical contributions to SNA. A few examples are Burt's (1992) structural holes theory and Granovetter's (1973) strength of weak ties theory (Borgatti, et al., 2014). Network theory at its most basic concept is a focus on relationships among people. This is different from other theories where every person is treated separately, disconnected from their networks. SNA denotes a nested system where all network members are nested within a wider social network.

Network flow model. The network flow model explains how information is shared within a network and between individuals. Network flow model theorists posit that information is the same at the end as it was when it was originally shared (Borgatti & Lopez- Kidwell, 2011). This theory is dependent on the closure and clustered-ness of the network. So, an individual who has a network where everyone knows each other means the information is likely to flow faster throughout the network. However, in a network where people know one person and that person than knows five people, information is likely to take longer to flow throughout the network (Borgatti & Lopez- Kidwell, 2011). The network flow model posits that information is absorbed by the receiver once it is shared, however, this is not how all networks operate.

Network architectural model. The network architectural model provides a theory where information is shared among members, but skills and knowledge are not completely transferred among the network members. For example, in the working network, each member is likely to have their own expertise. This skill set can be shared with the members of the network through the individual doing their part of the project, but the other members do not become experts in the same content matter. The network architectural model relies on network members working on behalf of one another in order to all share in the collective benefit (Borgatti & Lopez- Kidwell, 2011).

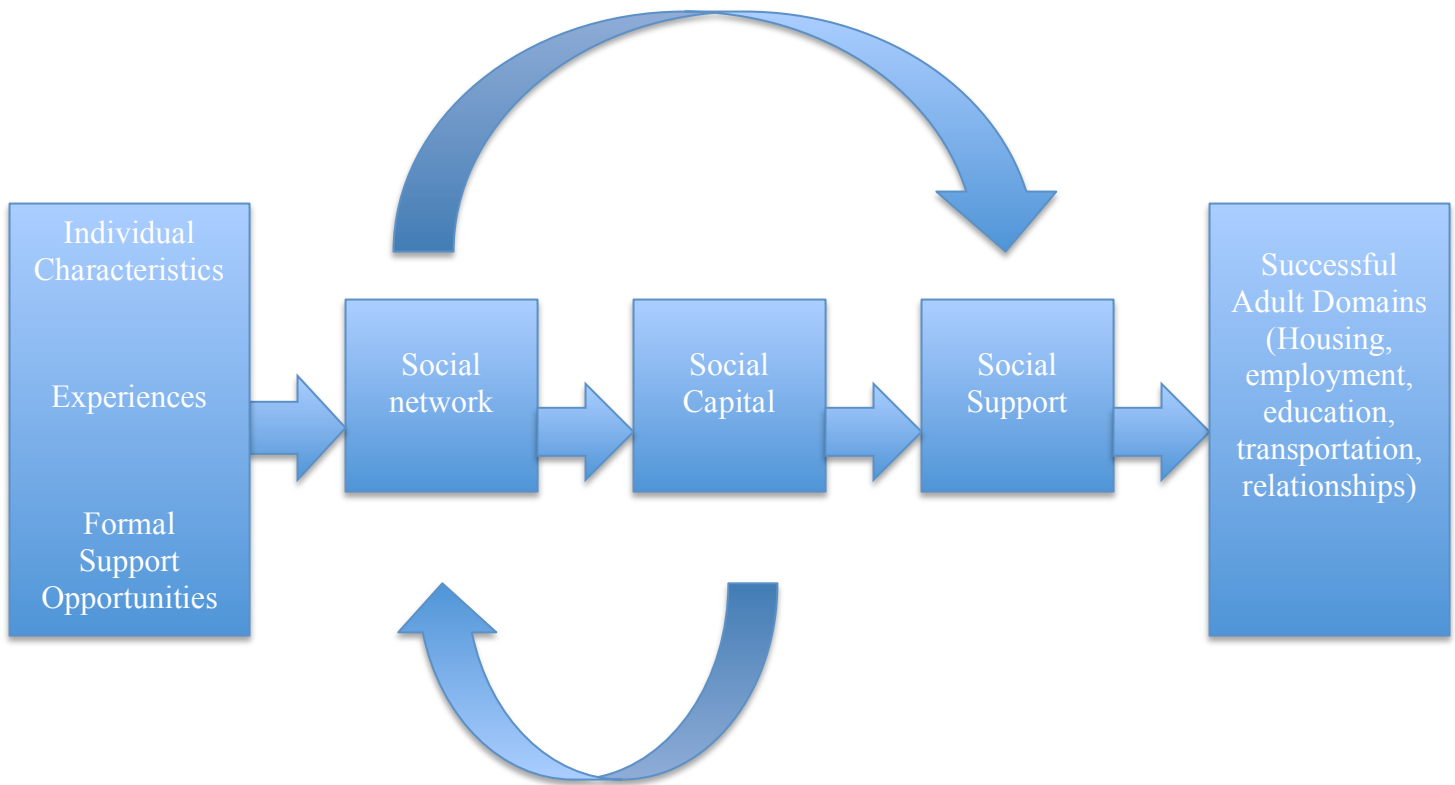
Social networks and foster youth. Social network theory has been used recently in the child welfare literature to better understand the impact social networks have on youth emancipating from foster care (Blakeslee, 2015; Negriff, James, & Trickett, 2015; Perry, 2006). Youth who experience maltreatment reported fewer people in their social networks than youth who have not experienced maltreatment, however no differences were reported in the perceived social support available to them from their social networks (Negriff, et al., 2015). Perry (2006)

found that foster youth who experienced increased placement instability and increased network disruptions experienced worse adult outcomes than foster youth with fewer placements disruptions. Additionally, strong new networks have been shown to increase psychological outcomes and can take the place of typical family networks (Perry, 2006).

Conceptual Model

Based on the above discussion, it is important to detail how each concept, networks, social capital, and social support work together to promote resilience and positive adult roles. All youth bring individual characteristics, experiences, and opportunities into their networks. These include demographics, foster care experiences, and their involvement in different programs such as higher education, employment, and IL programs. All of these things influence how youth build their social networks. This social network then in turn creates social capital and provides the youth with access to resources and opportunities. Social capital also influences their social network, because as the youth meet people through their networks and gain access to resources their networks are likely to grow and absorb some of the new people. Social support is influenced directly by the social networks of youth because someone in their network may provide a lot of support, but not contribute to the social capital of the network. Social support is also facilitated through social capital as instrumental and informational support, as youth are connected to people and resources their access to social support grows. This entire process helps to promote resilience and positive adult roles. See Figure 1 below.

Figure 1: Conceptual Model



Summary

Empirical results and multiple theoretical perspectives suggest that multidimensional social support is imperative during the transition to adulthood for foster youth. Multidimensional social support includes access to social capital, social networks, and perceived social support. The resources and supports that social networks provide youth may help to promote resilience as youth age out of foster care and help them enter productive adult roles (e.g. housing, employment, education). The current study examined this complex set of social network factors among transition-aged foster youth.

Chapter 3: Research Methodology

The present study aimed to gain a better understanding of the composition of social networks, the extent to which social networks help prepare youth for productive adult roles, and the extent to which the composition, development, and satisfaction of their networks are related to their experiences in foster care. The following chapter includes the research design, sampling procedures and participants, data collection methods, relevant research instruments, and the data analysis plan.

Research Design

This study aims to gain a better understanding of the social networks of transition-aged foster youth. This study was designed to gain a deeper understanding of the role social networks have in accessing and mobilizing social capital. In order to do this, the study is a descriptive, exploratory study examining the social networks of transition-aged foster youth. Relevant characteristics of the youth and social networks include demographics, foster care history, social support types/ domains, and satisfaction levels with the level of support provided by their network members. This study is cross-sectional, meaning data were collected once from each participant. While a longitudinal design would have allowed for change over time in networks to be examined, it was not feasible given the resources and time constraints associated with this study.

An exploratory, descriptive, cross-sectional design is appropriate based on the limited knowledge in the field on social networks among transition-aged foster youth and how social networks may help prepare youth as they transition into productive adult roles. There is extensive research demonstrating that foster youth report having some supports as they age out of care (Courtney, et al., 2010; Jones, 2013), but this research does not look at the broader

network composition or the specific types of support that are provided. Gaining a better understanding of the role certain network members (formal and informal) play could help to inform approaches to improve supports for youth as they leave care. The present study was approved as expedited through the VCU IRB (MH20010213: Social Networks of Youth Aging Out of Foster Care: Supporting Resilience to Promote Positive Adult Outcomes).

Social network analysis. There are two types of social networks, sociocentric and egocentric networks. Sociocentric network data aims to collect data on the entire network by examining the social ties between all members listed in the population (this type of analysis is frequently done in boundary-defined settings [e.g., classrooms, work environments]). Egocentric networks focus on the individual and their environment. Egocentric networks rely on self-reported ties of one individual and their perception of who knows whom among their network members (Robbins, 2015). Egocentric analysis involves asking someone to name people in their network (name generator) and then asks them additional questions about each person in their network (name identifier questions). This approach is more appropriate when the network does not involve a predetermined list of potential members. The current study used an egocentric approach to social network analysis, because the aim was to learn about individual networks across youth and compare similarities and differences. This approach incorporates youth perspectives and examines support without needing to verify the report with each named person. While a different approach could be used to examine each person in a youth's life and the level of support a young person has, a social network perspective allows for the focus to be on the relationship between people, instead of treating each person as a separate entity. In order to gain a better understanding of who youth reported providing them support, all data were collected from the perspective of the youth.

There is not one uniform way to collect social network data. Some of the most common data collection techniques are surveys (both online or in person), interviews, and observations. Online surveys are becoming more popular due to their user-friendly design and feasibility. For networks with more than a few members, paper-and-pencil techniques can often intimidate respondents (Robbins, 2015). They must list out all the names and then answer each subsequent question for each person. Online formats allow for a question to be asked about all network members at the same time or for all questions to be asked consecutively for each individual (Robbins, 2015). Interviews (with a digital or paper guide) allow the interviewer to ask follow-up questions and prompt the respondent when needed. A paper version of the current social network tool was piloted for this study (details below). This process provided evidence that participants found the paper version to be tedious, due to having to list out all the names and then denote which person they were referring to in each subsequent question. These pilot data, combined with the research on online data collection, led to the exploration of available software that would streamline the process.

There are several options for software for SNA. However, several choices of software only perform at one aspect of the research process: some only collect data (Survey Monkey, REDCap), some only visualize data (NetDraw), and some only analyze data (UCINET). For this study an option that would collect data, provide visualization of networks in real time for respondents to see and comment on, and produce a dataset for analyses, was needed. For this reason, two different programs were of interest, EgoNet and EgoWeb. EgoNet allows for the collection, visualization, and analysis of networks. However, at the time, it did not have advanced question skip logic and was cost prohibitive. EgoWeb was designed as a modification of EgoNet and expands the capabilities of EgoNet. EgoWeb 2.0 was chosen because it provides

advanced skip logic, network visualization, network overview questions, and is open source (EgoWeb, 2017).

EgoWeb 2.0 was developed by the RAND Corporation, UCLA, and University of Florida as way to advance social network research (EgoWeb, 2017). EgoWeb has previously been used with a variety of hard to reach and marginalized populations including individuals experiencing homelessness, people in public housing, individuals at high risk for contracting HIV, and individuals who were using substances (Brown, Kennedy, Tucker, Golinelli, & Wenzel, 2013; Kennedy, Brown, Golinelli, Wenzel, Tucker, Werthheimer, 2013; Pollack, Green, Kennedy, & Schwartz, 2014; Rhoades, Wenzel, Golinelli, Rucker, Kennedy, Green, & Zhou, 2011). EgoWeb 2.0 is set up to be used as a survey or interview guide, allowing for both methods to be used in order to gather information on individual's social networks. It also allows for a visualization of the network to be created and displayed to the participants, allowing for more in-depth questions about the overall network to be asked. Data from EgoWeb 2.0 can then be exported as a .csv file.

Overview. This study was mostly a quantitative study consisting of primarily close-ended questions that work to generate a sociogram (a visual depiction of all network members and their linkage to the participant), allowing the youth to visualize their social network and provide details about it. This visualization allowed the youth to have a copy of their sociogram. The close-ended questions examined type of relationship, relationship strength, communication type and frequency, perceived satisfaction with the support provided by their network, and in what domains (i.e., housing, education, transportation, employment, parenting) the network is supporting the youth. There was a small qualitative section that allowed youth to expand on network characteristics and perceived gaps in their social networks. Allowing for some questions

to be short answer increased the amount of information gained from each respondent and allowed for follow-up questions to be asked.

To address the primary goals of this research, data were collected on the details of the youth social networks (who's in them, how close they feel to them, etc.), the types of support available to them (instrumental, emotional, appraisal, and informational), their satisfaction with the support, essential details on the members in their networks, and current young adult outcomes of the youth. The interview was designed in a way that allowed all the necessary data to be collected while making it as easy to understand and efficient as possible for the participants. After a review of the best practices for social network assessments and a review of the different approaches that have been used with this population, a social network assessment was adapted using the tool created by Blakeslee (2015). This tool was an assessment that had youth list people in their network and then asked how that person was involved in academic support, career support, extracurricular, and social support. The assessment also asked how long they have known the person, how frequently they communicate, and how close they feel. However, the measure needed to be modified, because it did not cover all the information of interest in the current study.

The interview protocol for the study began with demographics (age, gender, and race), and questions about functioning across a range of domains (disability, employment, education, friendship, relationships). It then asked for a brief foster care history, including length of time in foster care, total number of placements, and placement type(s). Next, a name generator, which is a common step in social network analysis and has been shown to improve a person's ability to think about their social network, was asked. This prompt gave them the categories of friends, family, foster care related supports, and teachers/other mentors. The participants were then asked

a series of questions about each person they listed. This included what type of social support each person provided, how close (not close in proximity, but emotionally supported or emotionally close) they were, how often and how they communicate. The purpose of this was to assess the strength of different relationships the youth has and how they utilize their networks to provide different types of supports. Lastly, the youth was asked about if each member knows the other members in their network. This provides a better understanding of who in the network knows each other. The youth were then shown a sociogram and asked if there was anything else about their network that they want to share. A more detailed description of each section of the assessment is below. To see a detailed list of response options and to see a paper version of the assessment tool see appendix D.

Demographics. The first two pages of the adult behavior checklist (ABCL; Achenbach, 1997) were used to capture basic demographics and information about functioning across multiple domains (e.g., disability, employment, education, friendship, relationships). The initial two pages of the ABCL are used with adults 18+ to measure their overall level of functioning. (The subsequent/final two pages of the ABCL collect detailed data on symptomatology across a range of mental health disorders. Given the study's focus and the additional burden of the full ABCL, only the first two pages were used for the current study.) The ABCL assesses adaptive functioning skills among other things (Achenbach, 1997). Test-retest reliability for the functioning components is $r=0.79$ (Achenbach, 1997). Based on the nature of the questions focus on functioning in education, employment and relationships this scale was a good fit for the young adult outcomes of interest.

Foster care history. Due to the fact that different foster care characteristics, such as placement types and number of placements may impact the social networks of youth (Perry,

2006), background information was asked from the individual youth perspective about their experiences in the foster care system. These included, the total amount of time spent in foster care (given in years), the total number of placements a youth experienced, and the last placement type they were in. Total time in care and total number of placements are “fill in the blank” questions. Based on the most frequent placements reported in AFCARS (2015) the following placement options were listed: group home, foster home, residential facility, independent living placement (ILP), or other.

Formal support opportunities. Youth who are a part of a structured program designed to help them in various life domains (e.g., in school, in employment, with housing) may be more likely to have supports in that domain because of their association with that program. Youth may have differential access to support based on their involvement in formal support programs. Therefore, youth were recruited from various formal support programs. For example, all youth in the college support program, Great Expectations, have a coach through the program, and this person may increase social support available in education. Formal support opportunities included questions about access to certain network characteristics including: enrollment in school or vocational training, involvement in a formal program for youth in foster care, and if the youth are currently employed. These domains indicated that the youth is embedded in some form of formal support network.

Name generator. In order to provide a prompt to the participant and get them thinking about the people in their network a name generator question was used. A name generator question asks something like “please list all people who have helped or tried to help you in the past year.” These questions are the most common approach to collecting data on individual-networks (egocentric networks) (Campbell & Lee, 1991; Marin & Hampton, 2007; Laumann,

1966) and the oldest measurement method for social capital as it relates to social networks (van der Gaag, Snijders, & Flap, 2008). There are multiple types of name generator questions that aim to uncover different aspects of a network. One approach is the exchange approach that aims to elicit people in a network that provide support to the individual (Marin & Hampton, 2007). Other approaches include the role-relation approach (focuses on one type of person, e.g., friends), the interaction approach (people who the individual has had contact with), and the affective approach (only people the individual feels very close with) (Marin & Hampton, 2007). Based on the limited scope of the other approaches and the focus on supportive relationships for this study, an exchange approach was used. While any approach may exclude some network members, using the concept of supportive relationships gave the respondent a concrete concept to base their answers on and was less likely to be interpreted differently across sub groups (Bailey & Marsden, 1999; Marin, & Hampton, 2007, 2010).

In this study the name generator question asked “I'd like for you to think about people who have helped you or tried to help you in the past year. These can be anybody (friends, family, neighbors, teachers, social workers, other professionals), anyone who's helped you or tried to help you. We're going to start with just a list of names, so thinking about the past year, who are the people who have helped you or tried to help you?” A very broad prompt provides a starting point for the participant to start thinking about their networks. These categories of people were asked based on the groups used in the tool created by Blakeslee (2015) and on the common people in foster youth lives. This helped the participant think about who is in their network and provided parameters of whom they should list. Asking these questions from the youth perspective and not verifying the relationships with the nominated network members may have elicited people whom the youth perceived as supportive, even if the individual would not say

provided any support. Alternatively, the youth may have nominated someone who is in their life, but does not always provide positive support (e.g., critical family member). This is okay, because the type of relationship was distinguished in the questions that followed about each network member. The single name generator such as this does have limitations, including only eliciting network members who provided support and potentially missed network members whom the youth had contact with but did not feel supported by. This prompt could have had multiple questions that asked about a specific type of individual, for example it could have asked “please list everyone who has given you advice in the past year”, and then asked, “please list everyone who has loaned you money in the past year.” While the multiple name generator prompt may be useful,, for this study the risk of a participant not having anyone to name in a specific category outweighed the benefits of using a multiple name generator. It also ran the risk of generating redundant information. For these reasons, a single name generator prompt was used.

The next question then asked the participant how they know each member listed. The participant was given the following choices: friends, foster family, biological family, helping professionals, employer/coworker, or other (please specify), making it possible to group people in their network. Based on the research of who is involved with foster youth, the categories aimed to capture different groups who were likely to provide support to youth in foster care (Blakeslee, 2015; Nesmith, & Christophersen, 2014).

Position generator. A position generator is a question that asks about the members in an individual’s network. Position generator questions provided a way to measure the access to social capital within one’s network. Once the youth named all of their network members, they were asked what each network member did for a living and where they worked. This aimed to provide a better understanding of the type of people in the social networks of youth and the

potential access to resources each person provides. While the name generator and position generator share the same theoretical social capital backing, they measure different aspects of social capital, and therefore were both used. The two main uses of position generators examine either the prestige of occupations in one's network, based on the assumption that the higher the prestige the more beneficial one's network is. The other approach is an occupational scale that looks at both the education level and earnings of an occupation (Boyd & Nam, 2015). For this study an occupational index was used to examine the living conditions and future prospects for employment in a youth's network.

Prestige was measured based on the Nakao-Treas Occupational Prestige Scale (Nakao & Treas, 1994). This scale builds on the 1989 General Social Survey occupational scale and prestige scores. However, the updated scale considers both the income earned and education required to hold a given profession. The scale provides scores for over 800 occupations; however, the occupations presented in the current study were grouped together into 16 categories, ranging from unemployed to engineers and lawyers. The scale ranges from 0 (student) to 100 (doctors/lawyers) and depicts the prestige of an occupation as it relates to the broader labor force taking into account both the required education and potential income associated with a given occupation (Nakao & Treas, 1994). Prestige was measured based on the Nakao-Treas Occupational Prestige Scale (Nakao & Treas, 1994). Many respondents weren't able to provide an exact occupation but provided information about where their network members worked. This information was used to create broader groups like "medical" which included nurses and CNA's. These broader groups included occupations of similar occupational prestige ranking. Lastly social capital was assessed by examining if the youth had someone in their network in a similar

or related occupation to their future occupational goals. This provided information on their ability to mobilize their social capital to gain employment.

Name interpreters. Name interpreter questions ask for specific details about each person that an individual names. These questions aim to gain a better understanding of who is in their network and how the youth perceives their role in the network. Several questions were asked about the network members. For each member the youth named, they were asked how they communicate with that person, what type of support that person provides, how often they communicate, how close they feel to that person, and what domain that person provides support in.

Communication. Youth were asked about how they communicate with each person in their network, and how often they communicate with each person. These questions were important to gain a better understanding of the composition of social networks and how networks are developed. Communication type may look different based on formal and informal supports, for example some youth are not allowed to text their social workers, but texting may be their primary mode of communication with other people in their network.

Closeness. Youth were asked how close they felt to each person. “Closeness” was not asked about as a proximity question, but rather how close they *feel* to someone. This provides a better understanding of the people the youth feels the most connected to in their network. Closeness and how often they communicate with someone added understanding about the level of communication with network members based on their level of closeness.

Support type. The types of social support included are the four domains identified above: provides advice, listens to them, provides resources, and gives feedback on things. However, an individual may provide support in one type or multiple types of support. It is important to

understand which network members were providing which types of support and if there were common people across networks providing support across multiple support types.

Support Domains. In addition to the specific type of social support provided youth were asked in what domain each person provided support. The domains included were housing, education, employment, transportation, relationships, and parenting.

Satisfaction. Youth were also asked how happy they were with their network as a whole and how happy they were with the support being provided in the individual support domains (housing, education, employment, transportation, relationships, and parenting). The structured questions about satisfaction and gaps in their network provided insight into the common gaps in support or insufficient support in their social networks. It also provided insight into common areas that youth felt they were consistently supported, and others where they did not feel supported.

Connectedness. Last, for each member they named youth were asked whom else in their network that member knew. This captures how connected their network is to each other and if there were possible bridges between groups for the youth.

Sociogram. The last piece of the interview was to show the youth the sociogram generated by the responses they provided (see Appendix D). If the interview was done over the phone, this step was skipped, and the interview went into the structured network questions. This allowed them to visually see who was in their network, the type of support given and strength of relationship. Several questions were asked after the initial sociogram was created. The structured questions asked were: if there were groups of people within the network who know each other (only pairs are asked about before the visualization), and if there is anyone/anything that is missing from their network that they wish they had (this could include, family members, specific

types of support, or access to certain resources). Youth were then asked if there was anything else about their social network they would like to share. Open-ended questions allowed for a better understanding of the gaps in network members and resources across youth.

Pilot Study

The pilot study occurred in two phases. The first phase was to gain a better understanding of the utility of visually mapping their network with this population. The second phase was to test the research instrument with the population. The pilot study was approved as exempt through the VCU IRB (HM20007446: A Social Network Analysis of Young Adults in Foster Care's Social Support).

Phase 1. Once the first iteration of the tool was created, a community partner helped to identify youth on their Youth Advisory Board who would be willing to take the assessment and provide feedback. The non-profit's Youth Advisory Board consists of former foster youth, who are trained to test new products and give detailed and critical feedback to improve the products. All youth were between the ages of 18 and 23 and enrolled in college. For this phase of the pilot, youth were included who were accustomed to being asked for feedback and who had familiarity with the research process.

The first iteration of the network assessment tool asked basic questions about the youth's network. The tool was short and focused on the visual aspect of their networks. It asked youth to map out their network and color-code the tie strength, how they know the person, and how frequently they talked to that person. Next, they were asked several questions about each network member.

The feedback and results from these interviews indicated that having youth color-code their network was not capturing the intended information. The youth indicated that having a list

of questions for each individual they named would be easier to understand. When asked how they would like to have the questions presented about each network member, they suggested that for each question, it would be easier if all network members were listed at once, this way they could easily indicate who in their network did what, without having to answer the same questions multiple times. Their feedback led to edits and a need to pilot the instrument with a wider range of youth.

Phase 2. Based on the feedback from phase 1 of the pilot and a need to test the tool with a broader range of foster youth, phase 2 of the pilot was conducted. This was done with youth from a different community partner, who provides independent living classes, and a number of other services to youth aging out of foster care. The classes they provide tend to have a broad audience. Phase 2 of the pilot included seven youth who were all 18 and had either recently aged out of care or were in extended foster care.

The next iteration of the tool still had youth draw their network but did not have them color-code anything. Instead, after drawing their network they were taken to a grid that asked them about the type of communication, how close they are, and what type of support that person provided.

The feedback from these interviews was that the majority of youth did not like drawing their network and then having to list each person and answer the questions, stating that it felt tedious. The youth suggested finding a way so that once they drew their network they did not have to keep listing names, or to only have to list names and not have to draw their network. Based on this feedback the final assessment tool was developed and streamlined through the use of computer software that would ask them questions and then generate the visual of their network.

Phase 3. Based on the feedback provided by both pilot groups, the assessment tool was digitized and used a computer or iPad to conduct all interviews. In order to make sure that the digital version worked correctly and captured all needed information, it was tested with young adults (18–25) not involved with the foster care system and involved with the foster care system. Of the young adults not in foster care, the majority were women; however, of the youth in foster care, the majority were men who piloted the final version. These final pilot tests provided a general idea of how long the final assessment would take to complete, any bugs associated with the technology, and any question formats that needed to be adjusted based on the technology.

Dissertation Population and Sampling Method

Population. The population of interest for this study was transition-aged foster youth in Virginia between the ages of 18–25. Virginia has one of the highest rates of youth remaining in foster care until aging out in the country and until 2016 provided relatively few formal supports as youth transition from care (HHS, 2015). All current/former foster youth between the ages of 18 and 25 who were in foster care in the state of Virginia were eligible to participate. Youth in Virginia stop receiving services between the ages of 18 and 21, therefore talking to youth between the ages of 18 and 25 helped capture a diverse range of youth, some of whom were still in foster care and others who had been out of care for varying lengths of time.

Sampling method. A multi-pronged sampling frame was used in order to reach youth between the ages of 18 and 25 in the Commonwealth of Virginia. Ideally, a defined list of all youth in Virginia could have been obtained and a random sample drawn from that list. However, after extensive explorations, it was not possible to obtain or construct such a list. Therefore, sampling was approached from a variety of available sources and lists. Decisions about sampling were made to maximize the ability to obtain a sample that was representative of the types of

youth who age out of care, while following a protocol that was viable within the available time and resource constraints.

The state provides services to youth transitioning from care from a variety of sources. However, the main sources are through local Independent Living Coordinators. Therefore, recruitment was started with Independent Living Coordinators. They provided a connection to youth in their area that were eligible to participate. Local agencies that provide services to a broader population of youth were also targeted.

Independent living coordinators. The Virginia Department of Social Services (DSS) employs Independent living (IL) coordinators at each local Department of Social Services (DSS) to work with all youth over the age of 14 in their given district. IL coordinators have contact with youth by providing direct programming or connecting them to other IL programs. IL coordinators also help youth as they transition out of care with housing, education, and employment opportunities. IL coordinators often stay connected to youth even after they age out and stop receiving services, allowing for youth who are no longer connected to formal services to be reached. For the current study, IL coordinators were targeted first because they are the only service providers who had a list of all eligible youth in their given county/ city. They are connected to youth, service providers, and other IL coordinators and acted as a connection between the researcher and the youth. IL coordinators from several counties in the central and northern regions of Virginia agreed to recruit youth. These counties yielded 58 participants. IL coordinators received materials and helped to recruit youth through sending emails, posting flyers, and talking to youth at programming.

Statewide Initiatives. Several other statewide programs were utilized to help recruit youth. Statewide programs were focused on in order to get a representative as possible sample

from across Virginia. The two statewide programs targeted were Project LIFE and Great Expectations. Project LIFE holds the contract from the Commonwealth of Virginia to provide IL services to youth in care between the ages of 14–21. The program offers a variety of services including life skills training in education, money management, housing, health, and healthy relationships. Due to the nature of their work Project LIFE has a close working relationship with youth who age out of care and are no longer receiving services. This expands the potential number of youth who may be reached through this organization.

Great Expectations (GE) is a state-run program that aims to help former foster youth navigate higher education, by connecting them with people and services. GE serves youth in care, youth who were adopted after the age of 13, and youth who are unaccompanied minors in the community. GE offers services such as tutoring, job coaching, transportation, and class choices, and works with students starting in high school and moving through a two or four-year university—potentially reaching young adults over 21 years of age.

Smaller formal support programs in different localities were utilized to help recruit youth. These programs were independent living facilities, where youth live in apartments and have a strong connection to the IL staff. Several programs in central and northern Virginia provided youth with the information about the study. Due to confidentiality concerns the names of the individual programs will not be used.

Recruitment. All service providers were provided with an email, flyer, and cards (see Appendix A) that they sent to all youth they had contact with. The email and flyer contained an email, phone number, and Google form to request an interview. Youth who contacted by phone or email were then asked to complete the Google form in order to ensure they met the study inclusion criteria (aged 18–25, aged out of foster care in VA). This allowed youth to use the

contact method most convenient for them. In-person recruitment was conducted at a number of statewide conference and smaller local events. In-person recruitment provided a more personalized recruitment strategy and shifted some of the burden from the service providers.

After youth expressed interest in participating, they answered seven short screening questions (See Appendix C) to make sure they were over 18, aged out of care in Virginia, and confirm the best contact information for them. This aimed to ensure that all youth met the criteria to participate in the study. All interviews were then scheduled either over the phone or in person, a decision left to the individual youth. Youth reported that interviewing over the phone was a simpler option and many reported they would not do the interview in person but wanted to participate over the phone. Out of all interviews, 31 were done in person and 27 were done over the phone (these two groups did not vary based on demographics or network size). At the conclusion of the interview each participant received a \$25 VISA or Amazon gift card. Based on the information provided by community partners, \$25 was a reasonable amount for an incentive and similar to the incentive youth receive for participating in the National Youth in Transition Database (NYTD) survey, a federally mandated survey for older youth in foster care.

Interview. All interviews were conducted over the phone or in person and took anywhere between 25 and 60 minutes depending on how many people they reported were in their network. Each interview started with receiving verbal informed consent. Consent was obtained verbally per the IRB's request, due to the consent form being the only piece of identifiable information collected.

The first part of the interview covered basic demographics, background characteristics, and the first two pages of the ABCL (described in detail above). Next, the interviewer moved into the social network assessment and asked the participant, "who has helped or tried to help

you in the past year.” Having an interviewer present, in person or over the phone, has been shown to increase motivation and attentiveness (Matzat & Snijders, 2010). All questions after the name generator were listed in a format that asked one question at a time, but all individuals in the network were listed on the screen, called question-wise formatting (for example see Table 2). Question-wise formats have been shown to decrease dropout rates and item nonresponse rates in web-based data collection, when compared to formats that ask about each individual in the network separately, but all questions about that individual are provided (alter-wise questions) (Venhoar, et al., 2008).

Table 2: Question-Wise Format: How Close Are You to Each Person?			
	Not close	Close	Very close
Bio mom			
Foster mom			
Sibling			
Alter-Wise format: Please answer the following questions about: Bio mom			
How do you communicate with this person?			
How frequently do you have contact with this person?			
Etc.			

Each step in the interview was designed to capture information that fit into one of the concepts in the conceptual model from chapter 2. While some concepts are directly asked about such as social support, others are latent variables. Social capital was measured by proxy on a number of the questions included about each individual network member. Table 3 provides a detailed list of each concept from the logic model and the corresponding data being collected to measure it.

Table 3: Concepts Covered in Interview	
Domain	Information gained from the interview
Individual characteristics	Age, race, gender, disability, sexual orientation
Foster Care History	Length of time in care, number of placements, last placement type, extended foster care, age leaving foster care, placement length and type
Social Network Characteristics	Number of network members, closeness, contact frequency, connectedness between members, network satisfaction
Social Capital	Frequency of communication, occupational prestige, future career aspirations
Social Support	Types of support present, domains of support present, satisfaction with social support provided, type of support provided by each person (advice, emotional, constructive criticism, and resources)
Adult Outcomes	Currently in school/highest grade completed, homelessness experiences, relationships, employment, parenting

Data Analysis Plan

In order to answer the research questions posed in Chapter 1, univariate, bivariate, and multivariate analyses were utilized. All data from EgoWeb 2.0 was exported into a .csv file and imported into SAS. First the data were checked for importation errors (e.g. commas that didn't read correctly, etc.) next any data entry errors were checked for and corrected. Missing data from incomplete interviews was checked, but due to the nature of the interview process, there was none. Next missing data due to skip logic in the interview or a respondent refusing to answer a question was recoded. All missing data from skipped questions was imported as a -3 or -4 and was recoded to missing. These values were not included in subsequent analyses. For example, if a participant reported that they were not currently in school, they then did not answer questions about school relationships. These data are not missing; they simply did not apply to that participant and were excluded from analyses.

The analysis plan required two datasets to be created. The first dataset (wide form) contained only the first row of information for each participant (no information on individual network members), this data set was used for univariate, bivariate statistics, and multivariate

statistics for any ego level research question and analysis. All network data, such as network size, and satisfaction included in the first dataset was a composite from all the network members. For example, this dataset included the number of network members, and the percent of the network that was formal, informal, biological family, and foster family.

The second dataset (long form) contained a separate line for each individual network member and was used for all multi-level regressions. In order to capture the individual network member information nested within each individual youth, a long form dataset was needed. A detailed description of the data analysis is available in Chapter 4.

Data visualization. One key component to social network analysis is the visualization of the individual network data. All network visualization was done in EgoWeb 2.0. This provided a more detailed understanding of the individual network characteristics and support available in each network, the level of connectivity between network members, and the strength of relationships.

Quantitative analysis. Descriptive statistics, bivariate, and multivariate analyses (regression and multi-level modeling) were utilized based on each individual research question posed in chapter 1. In order to separate the variables for social networks, social capital, and social support a more detailed discussion is below.

Social network. Social network characteristics included network size, closeness between the youth and each member, communication type between youth and each member, and how the youth knows each person. Additionally, overall network satisfaction, and individual domain satisfaction were used to examine how youth felt about the support and members present in their network.

Social capital. Access to social capital was assessed using the position and resource generator. The position generator provided an idea of the resources available in the network. The position generator evaluated social capital, by looking at the occupational prestige present in the network as well as the diversity of occupations present in the network. In addition to the occupational prestige for each network member, the occupational prestige for each youth was calculated based on their future career aspirations. The difference between each youth's occupational prestige and each network members' occupational prestige was calculated to evaluate if the youth had people in their network with a similar level of education and training required for their career path.

Difference in network prestige scores was calculated by subtracting the network members score from the youth's, therefore if a network member had a higher score than the youth's they were assigned a negative score (e.g. if the youth wanted to be a mechanic and their network member was a lawyer.), if the network member's prestige score was lower than the youth's than they were assigned a positive score (e.g. the youth wanted to be a lawyer and their network member was a mechanic). This is not indicative to which scenario is better, in that in either case the youth does not have someone close to their future career goals. This will be discussed in more detail in chapter 5.

Social support. Social support is often considered an integral part of social capital (Kadushin, 2012). Social support was measured using a name generator. A name generator examines who youth rely on for support and then allows for several follow up question of types of support to be asked about each individual network member. Once the name generator has produced a list of supportive adults in their network several questions are asked about the types of support each person provided and was coded as emotional, informational, appraisal, or

instructional support. Lastly, the degree to which each network member provided support in individual domains (housing, education, employment, transportation, and relationship) was asked.

In addition to the types and domains of support available to the youth, the degree to which the person provided the support was captured. Individuals could provide support in housing or provide advice all the time, most of the time, some of the time, a little, or none of the time. This allowed for a better understanding of the diversity of support in the network. For example, if one or two people were providing support across domains all of the time, or if each individual member is providing support in different domains.

Descriptive statistics. Descriptive statistics were utilized to describe the sample and the network members including frequencies and means.

Bivariate statistics. Bivariate statistics were utilized to understand the relationship between several demographic variables and foster care status, several demographic variables and network characteristics, and foster care history and network characteristics. Bivariate results were used to inform the subsequent regression models.

Multivariate statistics. Linear, logistic, and multi-level linear and logistic regression were utilized to examine the relationship between foster care history and network characteristics, controlling for demographic variables, as well as to examine the relationship between adult outcomes and foster care history, controlling for demographics. Multi-level modeling was used to examine characteristics of the network members and social capital, controlling for the foster care history of the youth. A more detailed description of the data analyses is available in Chapter 4.

Chapter 4: Results

Introduction

Chapter 4 presents the results of the current study. This chapter provides a description of the data cleaning procedure, data analyses, and results. Chapter 4 starts with demographics of the sample, relevant foster care background, data visualization of the average social network, bivariate statistics of network characteristics, foster care history. The bivariate statistics were then used to inform regression models and multi-level models.

Sample

As previously discussed, a multi-pronged approach to sampling was used to achieve the most representative sample possible. Service providers sent information about the study to a wide variety of youth, who may or may not have met all inclusion criteria. For example, Great Expectations coaches sent the information to all youth in their program; however, only a subset of their population was eligible to participate in the current study. Of those youth who responded and wanted to participate, 76% were eligible and completed a survey. Of those youth who did not participate, 11 were eligible but unreachable at follow up and six were not eligible to participate due to being in care out of state or being over 25. The number of youth who had the opportunity to respond and participate is not known due to service providers needing to protect confidentiality. However, of the Independent Living Coordinators who shared the number of youth who were included in their distribution lists, 78% participated in an interview. All of this resulted in a participating sample of 58 youth. The limitations associated with this sample will be discussed further in Chapter 5.

Data Cleaning

Data cleaning began with renaming variables to fit the required format (length, etc.). Next all data were checked for importation errors. All variables in EgoWeb 2.0 that had multiple response options had to be recoded into separate dummy variables that indicated each response option for that variable. Once these were created, there were no other errors in data importation.

Next, the skip logic used in data collection was fixed to align with the needed values to denote missing responses. All data were imported as a -4 or -3, because it did not apply to that individual were changed to the default for missing. This allowed missing values to be excluded from all analyses. There was no other missing data to be corrected. Since all data were collected in person, the risk for errors in answering questions and omitting certain questions was minimized. All respondents were allowed to skip a question or refuse to answer a question; however, no one used this option.

After all not applicable recodes were corrected, variables that were imported as character variables were changed to numerical variables. This was important to ensure that all variables could be used in analyses in the correct format. Once all variables were numeric, new variables were created. New variables were created to include if the youth completed a phone or in person interview, a summation of the size of the each social network, and other network characteristic variables. These will be discussed further in the data analyses section.

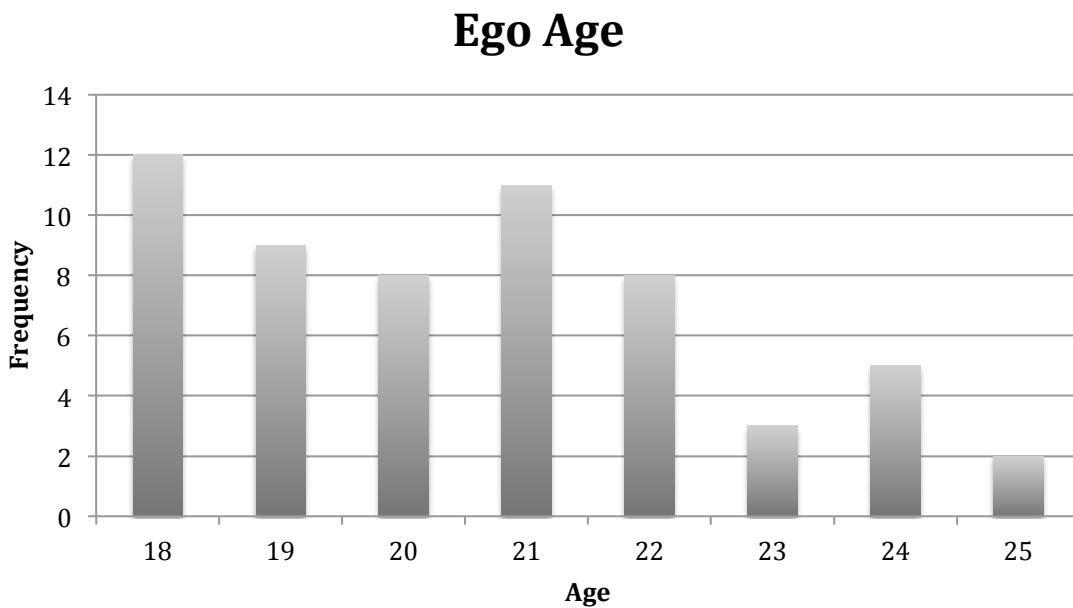
Once all data were cleaned and recoded the data needed to be made into two different datasets. The first data set needed to be wide-form, or with all information pertaining to a certain case on one line. This was important to create any summary variables and get accurate data on ego (individual) characteristics, rather than characteristics of every person in their network. This

dataset was used for all demographics, foster care history, bivariate, and multivariate regression models. The second dataset that needed to be created was in long-form or left each individual network member on their own row. This meant that in the second dataset there were a total of 424 observations for 58 participants. This dataset was used for all multi-level regression.

Demographics

The following section includes information on age, race, gender, sexual orientation, marital status, disability status, and parenting information of youth in the sample.

Age. All participants (ego's) in the study were between the ages of 18 and 25, with a mean age of 20.6 and a standard deviation of 2.0. See Figure 2 for a distribution of ages in the sample.



Gender. An open-ended question asked about gender identity. Of the 58 participants in the sample, 62% identified as female and 28% identified as male.

Sexual Orientation. Of the 58 participants 77.6% of the participants identified as heterosexual, 3.5% identified as homosexual, 17.2% identified as bisexual, and 1.7% identified as other.

Marital Status. The majority (89.7%) of the sample had never been married. However, 8.6% participants (n=5) were married and living with their spouse, and one participant was married but not living with their spouse.

Disability Status. The majority (69%) of the sample did not have a disability, but 31% (n=18) of the participants identified as having a disability. The participants self-identified their disability; the most commonly reported were ADHD, depression, anxiety, and PTSD.

Parenting. The last basic demographic information to be included was if the participant was parenting. Of the 58 participants in the sample 29.3% (n=17) were parenting at the time of the interview and 70.7% (n=41) were not.

Foster Care Background

Each participant was asked about their history in foster care. These questions included the age they entered foster care, total years spent in foster care, placement type, extended foster care, continuous foster care, and the age the youth left foster care.

Age Entered/Left Foster Care. The average age youth entered foster care was 11.3 years old and left foster was 19 years old. Figure 3 provides the distribution for the age youth entered foster care. Approximately 29.3% (n=17) of the sample entered foster care as a child (younger than 10), while 70.7% (n=41) entered foster care during the middle-school or high-school years. In this sample, 41.38% (n=34) entered foster care during adolescence (age 13 or older). Figure 4 shows the distribution of the age at which youth left foster care. Most of the

youth left foster care when they were 18 or 21, with 20.7% (n=12) leaving at 18 and 19.0% (n=11) at 21.

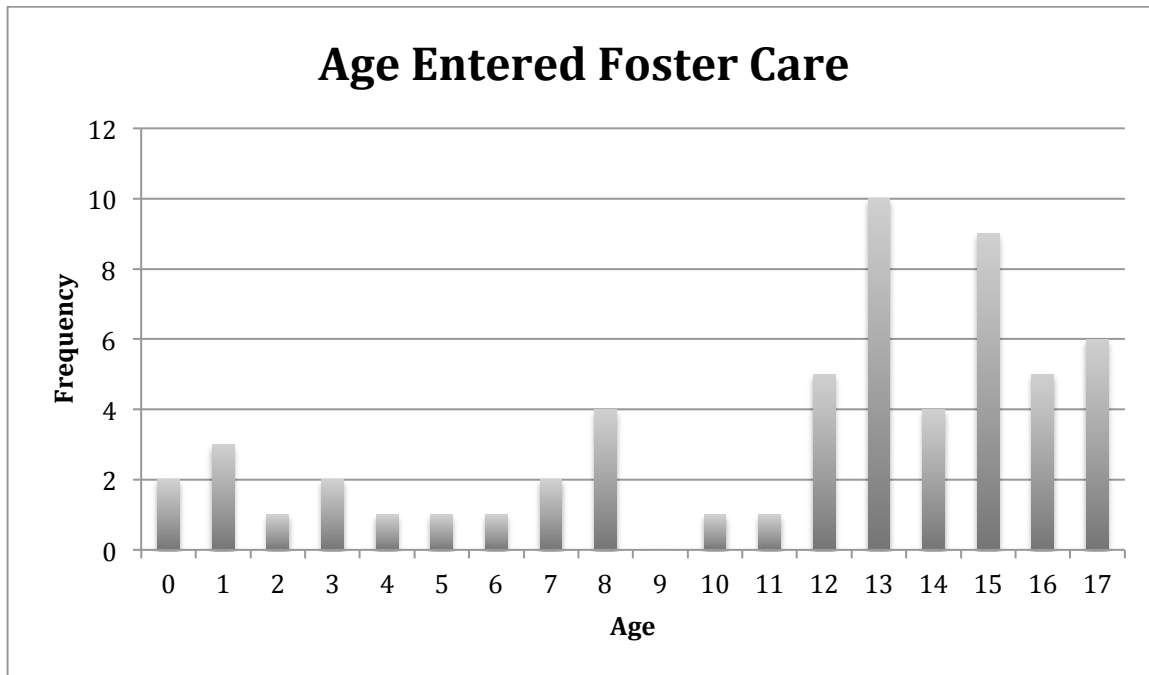


Figure 3: Age of sample participants

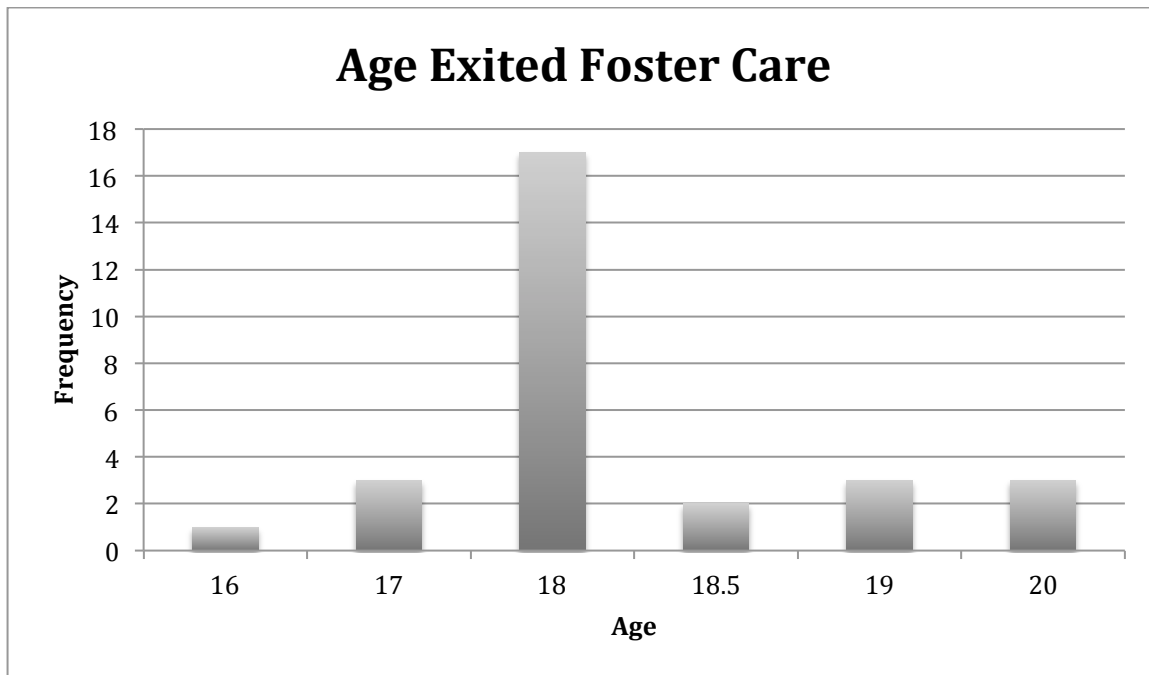
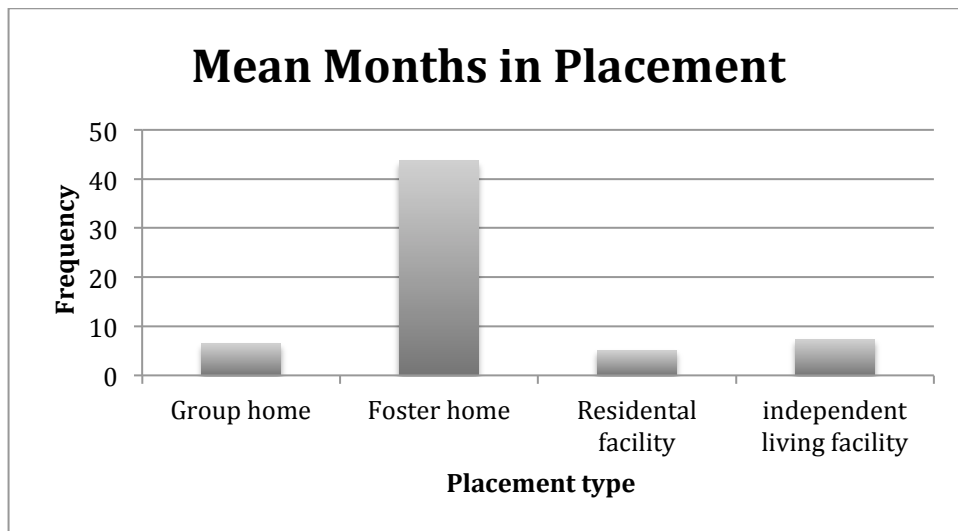


Figure 4: Age youth left care

Total Years Spent in Foster Care. Sample members spent an average of 6.5 years in foster care over the course of their lifetime.

Continuous Foster Care. Due to knowing that many older youth in foster care experience several foster care episodes, youth were asked if “once they entered foster care did, they remain in care continuously.” Of the 58 youth in the sample 72% (n=42) remained in foster care continuously and 28% (n=16) had multiple episodes of care. The number of foster care episodes for each youth is not known.

Placement Type. Youth were asked both if they had been placed in a certain placement type and, if so, how long they spent in each placement type. Ninety-three percent (n=54) of youth had spent time in a foster home, 50% (n=29) of youth had spent time in an independent living placement, 50% (n=29) of youth had spent time in a group home, and 40% (n=23) of youth had spent time in a residential living facility at some point while in foster care. See Figure 5 for a more detailed description of placement types.



Extended Foster Care. While the majority of youth in the sample were over the age of 18 and not in extended foster care, however, 29% (n=17) were in extended foster care at the time of the interview.

Table 4: Sample Descriptives (N=58)

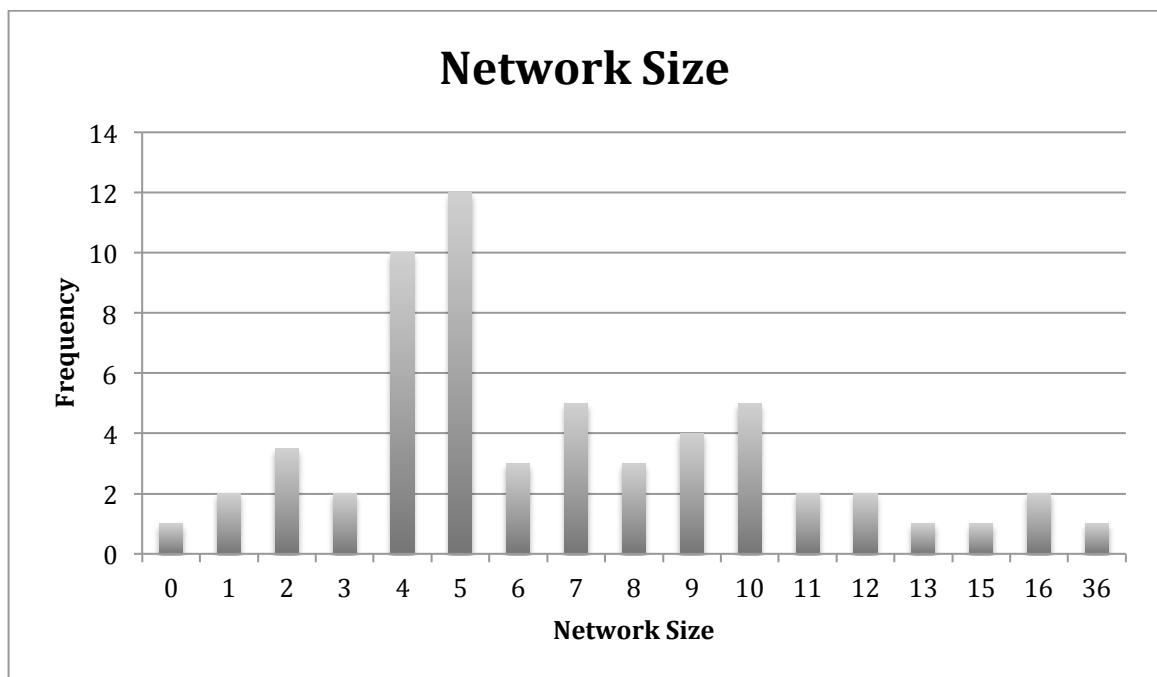
	Frequency	%	Mean (SD)
Demographics			
Age			20.6 (2.0)
Male	22	37.9	
Female	36	62.1	
White	14	24.1	
African American	29	50.0	
Hispanic	6	10.3	
Race-Other	9	15.5	
Children	17	29.3	
Disability	18	31.0	
Foster Care History			
Age enter care			11.3 (5.1)
Total years spent in care			6.5 (4.4)
Number of placements			5.8 (5.2)
Placement type			
Group home (months)	29	50.0	6.5 (10.6)
Foster home (months)	54	93.1	43.7 (41.5)
Residential Facility (months)	23	39.7	5.1 (9.1)
Psychiatric Facility (months)	18	31.0	2.3 (9.1)
Independent living Placement (months)	29	50.0	7.3 (13.0)
Extended foster care	17	29.3	
Continuous foster care	42	72.4	
Age left care			19.0 (1.5)

Social Network Characteristics

The following set of analyses correspond with the research aims presented in chapter 1. Research aim 1 will start with several visual depictions of social networks. These networks will provide a better understanding of a typical social network based on size and relationship strength. Research aim 2 provides a better understanding of the connection between youth experiences in foster care and their social networks. Last, research aim 3 provides a better understanding of the access to and mobilization of social capital among the youth in the sample.

Research aim 1

Network Size. Research aim 1 aims to gain a better understanding of the social networks of foster youth. The network size among the 58 participants ranged from 0–36, with a mean of 7.1 and a standard deviation of 5.2. While the majority of youth had between four and five network members, there were a few networks that were substantially larger. See Figure 6 for the full distribution of network size. Network size is important to examine in relationship to the types of people each network has and will be discussed in more detail in future sections.



Data Visualization. To gain a better understanding of social networks, data visualization was utilized. Data visualization allows for a variety of network characteristics to be examined. The social networks, on average, had 7 supportive adults in them that communicated with youth in different ways, had different frequencies of contact, and different levels of emotional closeness. However, in all the networks the youth is connected to their network members, and some network members are connected to each other. For example, Figure 7, shows a slightly smaller than average network. The network has five people and they are all informal supports.

The individual participant (ego) was connected to everyone in the network (but is not depicted in this sociogram) and the lines connecting each circle indicate if the individual network members know one another. In this network, most network members were connected; however, there was one individual who is only connected to the ego and one other network member. The purple color signifies that this ego reported being very close to all network members but talks to network members with different frequencies. The largest circles are daily contact, and the smallest circles are monthly contact. This ego did not talk to anyone less than monthly.

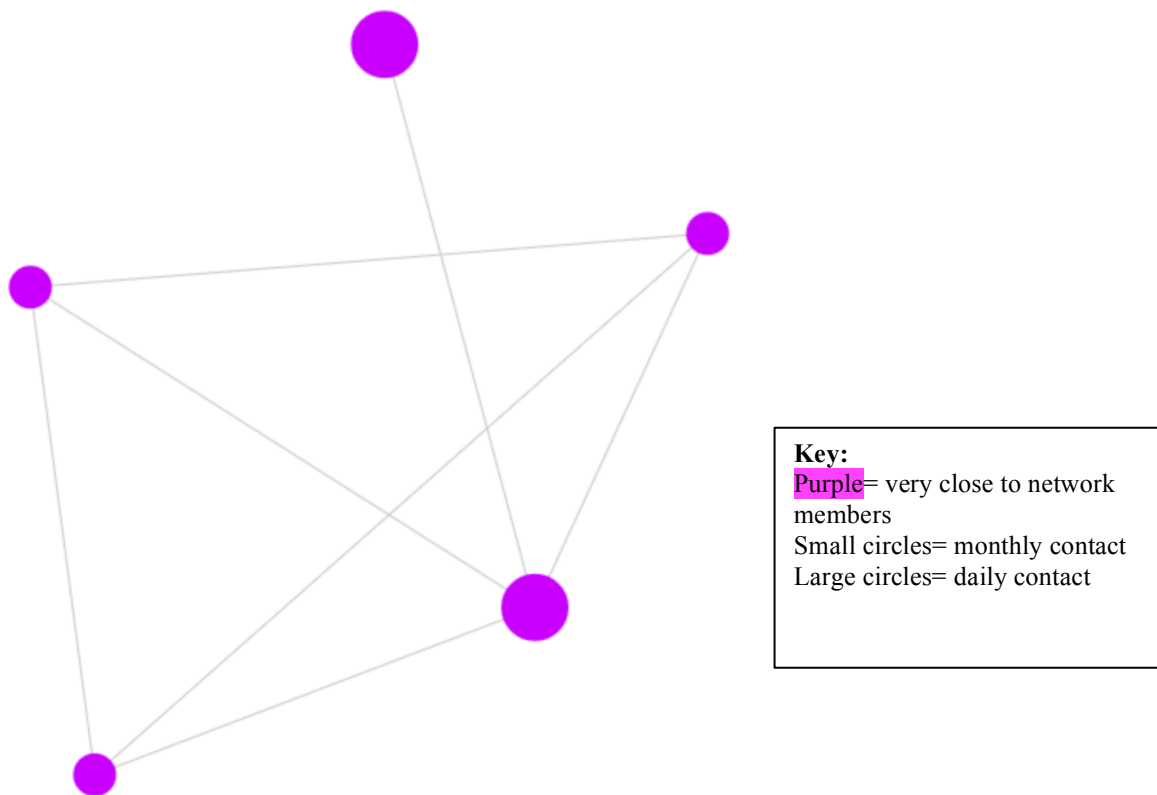
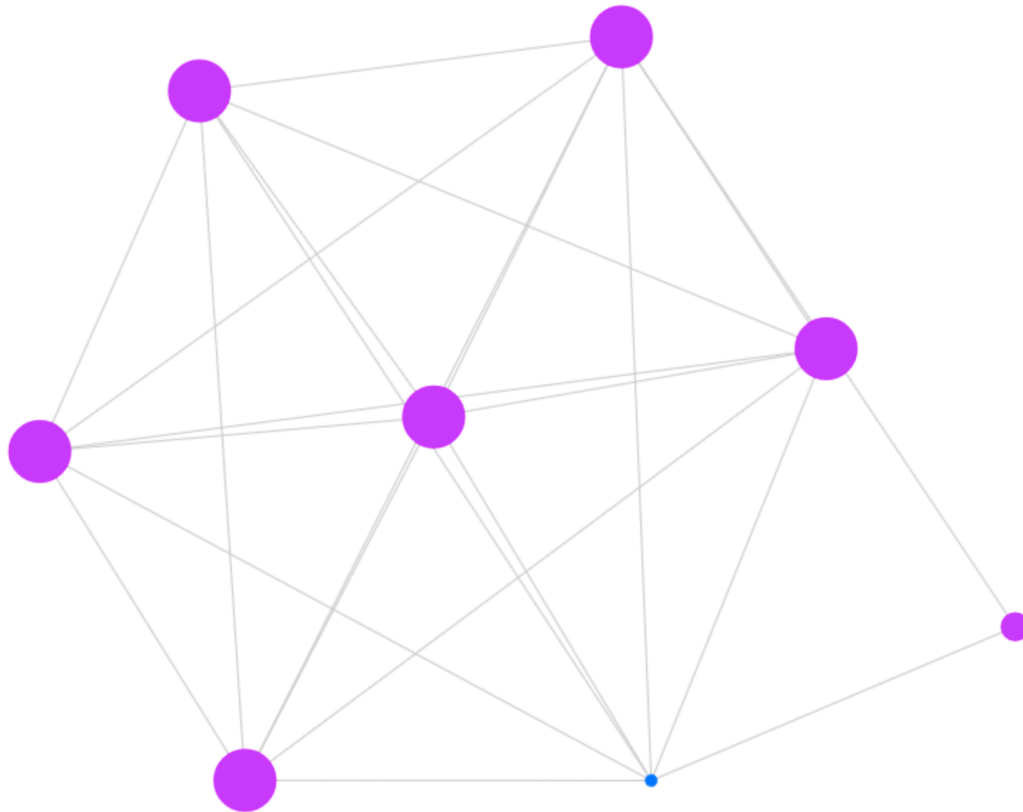


Figure 7: Social network map

The following network shows an average size network. The network had six friends in it, and two helping professionals. The ego knew all network members, and in their network, most members knew each other. For the few network members who did not know everyone, they were at least connected to two or more other network members. The purple circles denote a very close

relationship and the blue circles signify a close relationship. This ego did not have anyone in their network that they are not close to. This ego had daily contact with six of their network members, monthly contact with one member, and sporadic contact with one member.

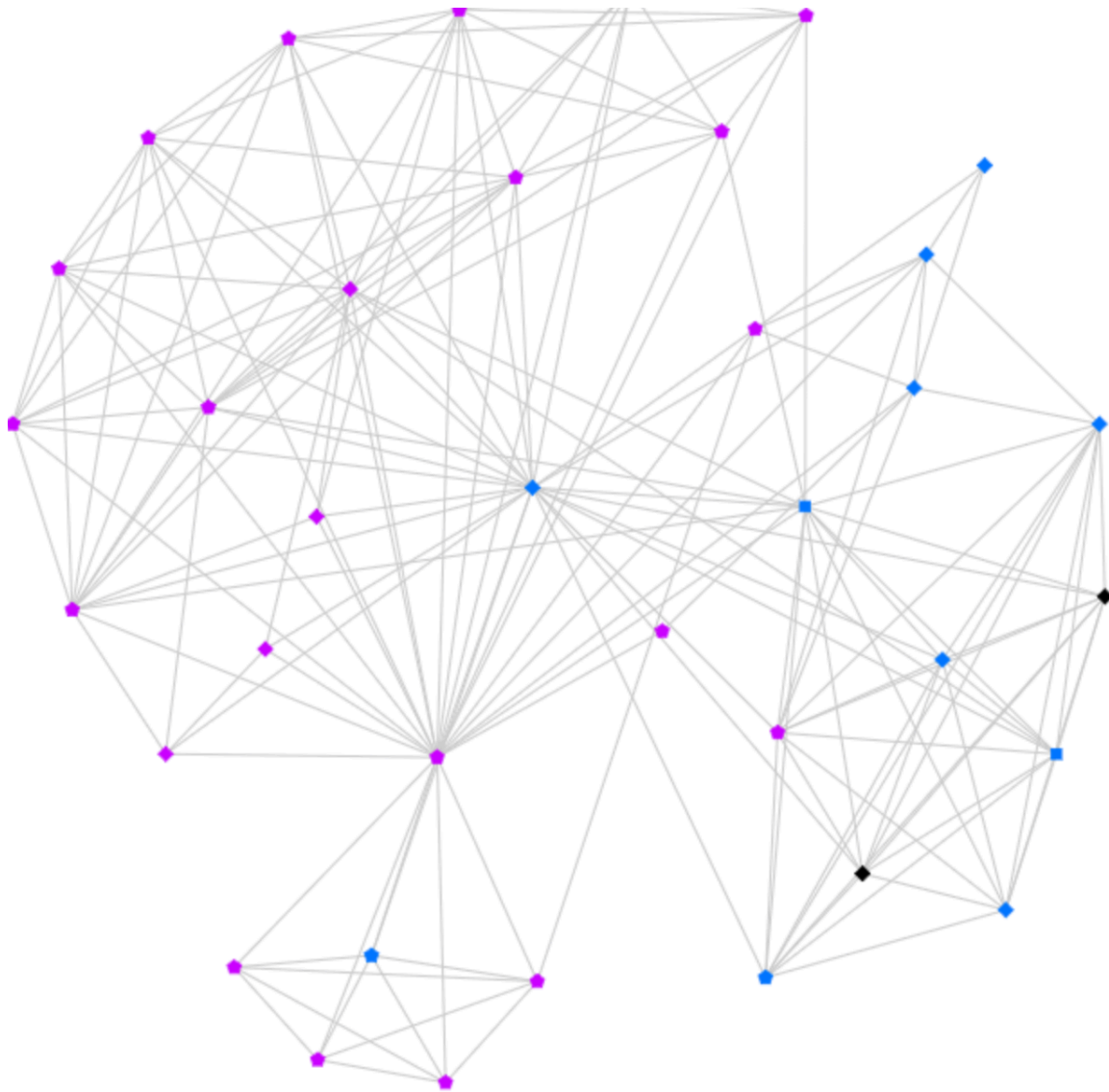


Key
Purple= very close to network members
Blue= close to network members
Large circles= daily contact
Medium circles= monthly contact
Small circles= sporadic contact

Figure 8: Social Network map

The following network map is a larger than average network. The following participant had 36 network members that are all connected to the participant, but not one another. The

purple circles are very close relationships, the blue circles are close relationships, and the black circles are not close relationships. In this network the circles are daily contact, the squares are several times a week contact, the diamonds are weekly contact, the triangles are monthly contact, and the + are sporadic contact. While this network was very large the ego does not have daily contact with any members. They were very close or close with most members. This network map is also unique in the connectivity among the network members. The network members were in three different groups that were all connected to each other by at least one network member. Within these three separate groups in the network, the network members are very well connected and then less connected to the members in the other groups in the network.



KEY:
 Purple= very close to network members
 Blue= close to network members
 Black= not close
 Circles= daily contact
 Square= several times a week
 Diamonds= weekly
 Triangle= monthly
 Plus= sporadic

Figure 9: Social network map

Data visualization of the social networks of sample participants provided for a better understanding of the composition and size of networks across youth. In most networks, network members knew one another indicating that foster youth often have supportive adults in their lives who are also in each others lives. Data visualization also allowed for a better understanding of the range of communication frequency across networks. Many youth, regardless of the type of supportive adult or how close they felt to the supportive adult, reported varying levels of frequency in communication. Youth reported talking with network members ranging from daily to less than monthly across networks. Most networks provided a range in closeness with most ego's reported being close or very close to their network members. A more detailed discussion of network characteristics is provided below.

Overall Network Member Characteristics. The following section provides an overview of all network members across the 58 sample participants. Among these networks 35.6% (n=151) of network members were helping professionals (therapist, social workers, case managers), 17.9% (n=76) were biological family, 17.9% (n=76) were foster family members, and 28.5% (n=121) were informal supports, such as friends. Of these connections, youth felt very close to 55.1% (n= 233), youth felt close to 36.2% (n=153) and did not feel close to 8.8% (n=37) of their connections. Regardless of how they knew the network member youth still felt close or very close to the majority of their network members. Additionally, youth had frequent contact with most of their network members, with 25.9% (n=110) having daily contact and only 19.6% (n=83) having sporadic contact with youth. Please see Table 5 for the full distribution of contact levels.

Table 5: Overall Network Membership and Contact (N=424)

Variable	N	%
Helping professional	151	35.6
Informal support	121	28.5
Biological family	76	17.9
Foster family	76	17.9
Not close	37	8.8
Close	153	36.2
Very close	233	55.1
Daily contact	110	25.9
Several time a week	73	17.2
Weekly contact	85	20.1
Monthly contact	73	17.2
Sporadic contact	83	19.6

Network Member Communication. Youth had support across the examined domains and support types but received support in a variety of different forms. Youth communicated with their network members in multiple forms, with the majority of youth communicating with network members in person, phone calls, and text messages. Of the 424 network members, 53 communicated only in person, 10 communicated only using text messages, four only used email, seven used only phone calls, and seven only used social media. The other connections (n=343) all used multiple forms of communication to reach their network members.

Individual Networks Overview. The preceding section provided an overview of all network members across all youth. However, to gain a better understanding about differences in individual networks, the following section provides information by individual network. Table 6 provides a breakdown of network characteristics including, the network size, formal/ informal support, biological family, and foster family. Table 6 also provides information about the relationship youth report having with each of their network members.

Table 6: Individual Network Characteristics (N=58)

Variable	% or mean(SD)
Network size	7.1 (5.2)
Formal support (helping professionals)	2.6 (2.8)
Informal support (friends and coworkers)	2.0 (2.4)
Biological family	1.3 (1.8)
Foster family	1.3 (1.9)
Relationship strength	
Very Close	55.1
Close	36.2
Not close	8.8
Overall network satisfaction	4.3 (0.8)

Network Size. While network size varied in the sample, it did not vary significantly by race or gender. It also did not vary significantly by category, formal support ($F=0.67$, $p=0.52$), informal ($F=0.13$, $p=0.88$), biological family ($F=0.74$, $p=0.48$), or foster family ($F=0.76$, $p=0.47$). There were no difference between the youth who were interviewed in person or over the phone based on network size.

Table 7: T Test Results (N=58)

Variables	t	p
Network size by:		
Gender	0.96	0.33
Race	0.54	0.59
In person interview	0.44	0.66

Types of Social Support. Youth reported having at least someone to provide most types of support (advice, emotional, constructive criticism, and resources). The number of people available in each network to help in specific type varied. On average, youth reported having the fewest members who provided resources (mean=2.07) and the most who provided advice (m=3.16). Based on these means, youth had approximately two to three people, on average, to provide each type of social support.

Table 8: Mean Percent People in Network to Providing Support by Domain

Variable	Mean	SD	Minimum	Maximum
Advice	3.16	0.99	0.4	5.5
Constructive Criticism	2.77	1.14	0.4	5.0
Emotional Support	2.94	0.98	0.0	5.2
Resources	2.07	1.17	0.0	5.0

Domains of Social Support. Youth reported having support in most domains (housing, education, employment, transportation, and relationships) of support. The number of people available in each network to help in specific domains varied. On average, youth reported having the fewest members who provided help in employment (mean=1.82) and the most who provided support in housing, education, and transportation (mean=2.02). Based on these means, youth had approximately one to two people, on average, to provide each type of social support.

Table 9: Mean Percent People in Network to Providing Support by Domain

Variable	Mean	SD	Minimum	Maximum
Housing	2.02	1.29	0	4.0
Education	2.02	1.26	0	4.0
Employment	1.82	1.33	0	4.0
Transportation	2.02	1.22	0	4.0
Relationships	1.88	1.34	0	5.3

Table 8 and 9 provide a more detailed look at the type of support and domains of support available in each network. Figure 10 shows youth reported having more support in the support types, such as advice, and fewer people to help in specific domains like housing or employment.

However, all youth reported having someone to help them when needed in most aspects.

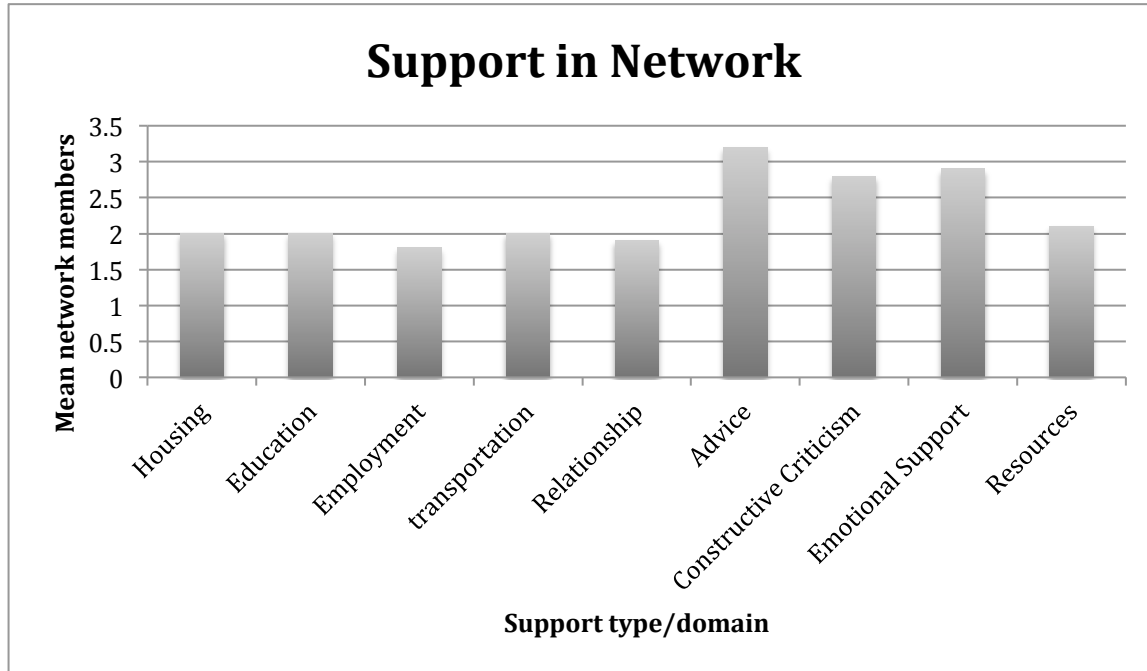


Figure 10: Support in Network

Missing Support Domains. It is important to note that on average youth were supported, but some youth did not report any support in certain domains. In all but two support domains, at least one youth reported not having support in that area. Most youth had support in housing; however, seven reported having no one in their network to help in housing. Seven youth reported lack of support in education with six youth reporting having no one to rely on for help with their educational needs. Seven youth reported having no one to help in employment, and two youth reported having no one to rely on for help with transportation. Of the 58 sample participants, two youth reported missing support in every domain, and seven reported missing support in all but one domain. However, of the youth who were missing support in one or more domains, they were not always missing support in the same domain.

Missing Support Types. Overall, there were fewer gaps in types of support (advice, constructive criticism, emotional support, resources) than in domains of support. All youth

reported they had at least one person to give them advice and constructive criticism. One youth reported that they had no one to provide emotional support and one youth reported they had no one to provide resources when they need them.

Social Support Providers. Youth reported having a variety of people in their network who provided them support in housing, education, employment, transportation, relationships or provided them advice, constructive criticism, emotional support, and access to resources. However, the sources of this support varied across networks with some youth relying more on formal supports (therapist, social workers), informal support (friends/coworkers), biological family, and/or foster family. Youth reported having people in their life whom they felt close or very close to. While the overall network size and characteristics varied, variations between individual networks were also present. On average each network had 2.6 helping professionals, 1.9 informal supports, 1.3 biological family members, and 1.3 foster family members.

Figure 11 provides a distribution of each type of network member (formal, informal, biological, and foster family support) in each individual network. The graph below shows the percent of each network that is comprised of formal, informal, biological, and foster family supports. For example, formal network members made up 0.1% of the network members in four different networks and informal network members made up the entire network for two different sample participants.

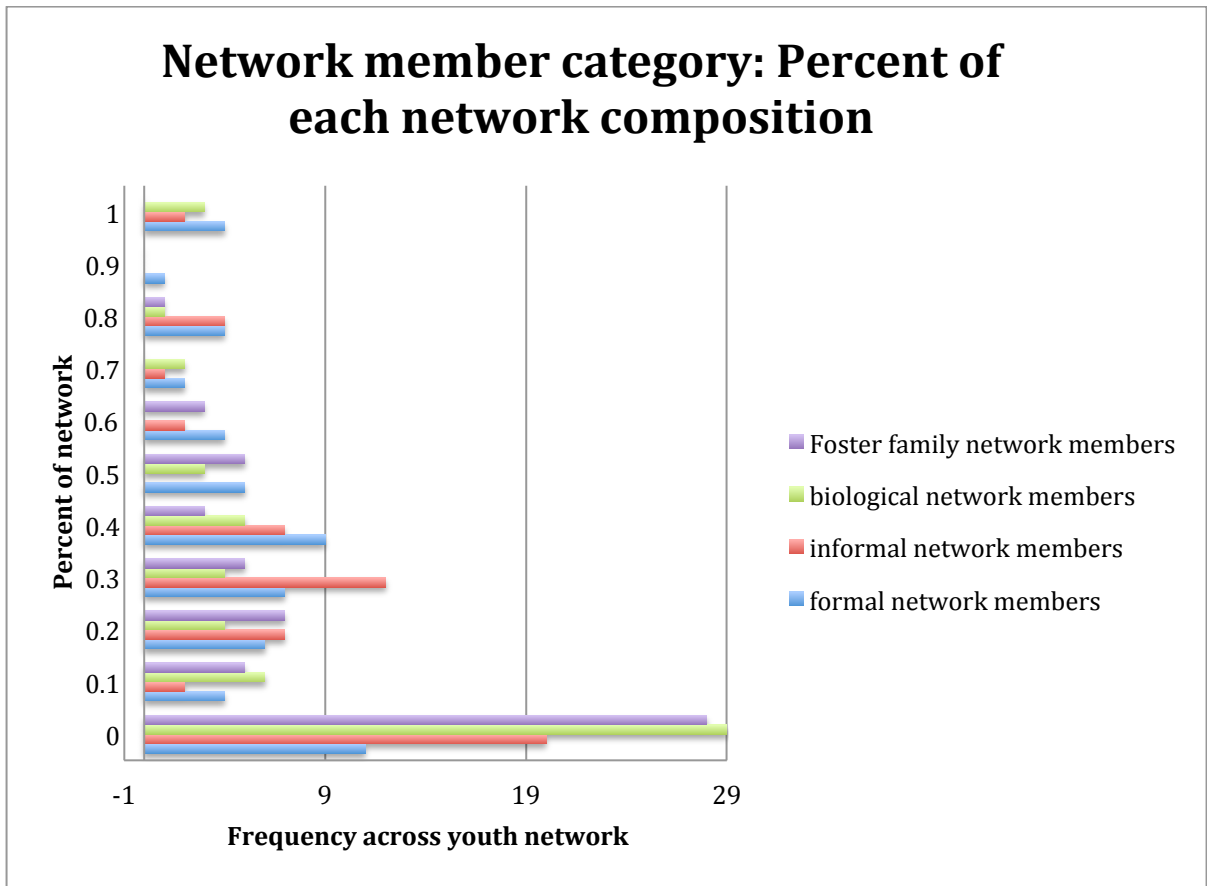


Figure 11: Network member identification

Not all youth reported having biological family members in their support network. Half of youth in the sample (29) did not report any biological family members in their network. At the other extreme, three youth reported everyone in their network being a biological family member. Formal support includes all helping professionals or social services related professionals such as case managers, therapist, and social workers. Eleven youth reported having no formal supports in their network and four youth reported having only formal supports in their network. Foster care related supports referred to foster family members including foster parents and siblings. 28 youth reported having no foster family related supports and no youth reported only having foster family supports in their network. The last category of people youth reported were informal supports

such as friends and coworkers. Twenty youth reported having no informal supports in their network and two youth reported having only informal supports in their network.

Social Support Satisfaction. Youth reported that they had people in their networks, but the level at which youth felt satisfied with the support in each domain (housing, education, employment, transportation, and relationships) varied. Youth were asked to report their satisfaction with each individual domain and then to report an overall satisfaction score for their network. The overall network satisfaction was consistently higher than the individual domain satisfaction scores with a mean of 4.3 out of five and a standard deviation of 0.8 for the overall network satisfaction. While most youth reported being satisfied with their overall network, there was considerably more variation in their satisfaction with individual support domains. Both overall network satisfaction and individual domain satisfaction was asked about on a scale of zero to five with zero being not at all happy and five being completely happy. Scores ranged from 36.2% of youth reported being extremely happy in housing to 48.3% of youth reported extremely happy in education. Scores ranged from 31% of youth rated their happiness with their level of support in relationships being above a three to 36% of youth rating their satisfaction with education at below a three. For a more detailed description of satisfaction rates please see Figures 12 and 13.

Figure 12 shows the rating for the overall network satisfaction and each individual domain satisfaction on a scale of zero to five. Figure 12 shows the overall network satisfaction and individual domains on the same zero to five scale, but any response three or below was combined into an unsatisfactory rating. Figure 13 helps to better illustrate the variation between youth who are either completely or mostly satisfied and youth who ranked their satisfaction at a three or below indicating a level of dissatisfaction.

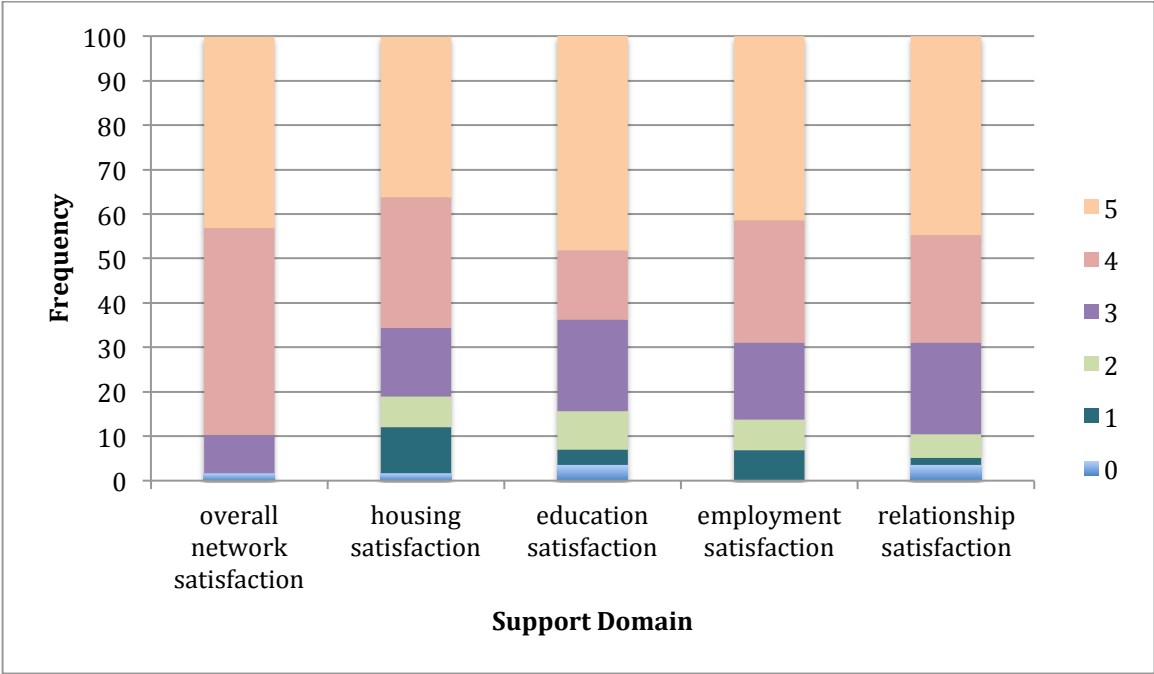


Figure 12: Support Satisfaction

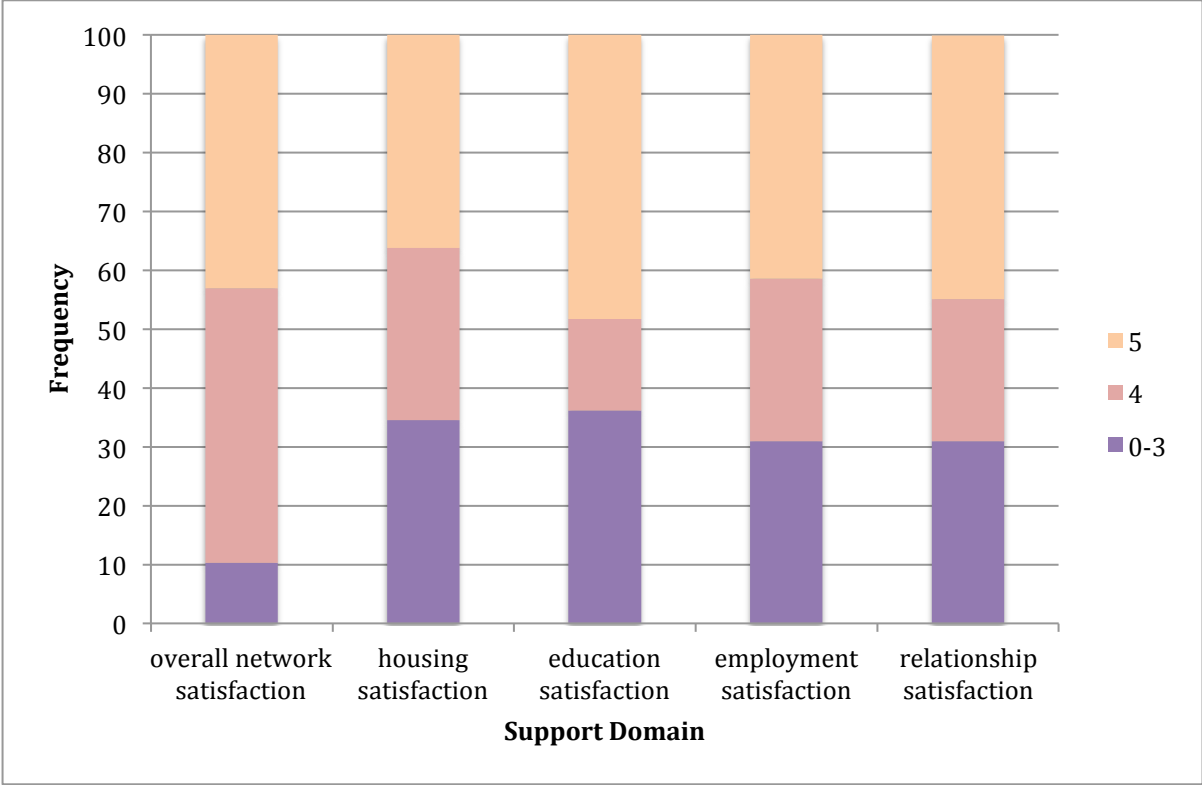


Figure 13: Support satisfaction condensed

Demographics and Satisfaction. As seen in Figures 11 and 12, there was variation in the level of satisfaction reported; however, this variation did not vary significantly based on a number of variables. Satisfaction in housing, employment, education, and relationships did not vary significantly based on gender or race. Youth were also asked if they felt like they were missing support, or needed more support, in each domain. Youth did not report missing support significantly in housing, employment, or relationship by gender or race. Gender and race both had a statistically significant relationship with youth missing support in education. Please see Table 10 for a more detailed description of the chi square results.

Table 10: Chi Square Results (N=58)

Variables	χ^2	p
Gender by:		
Housing satisfaction	0.82	0.37
Educational satisfaction	1.22	0.27
Employment satisfaction	0.23	0.63
Relationship satisfaction	0.47	0.49
Support gaps-housing	2.79	0.10
Support gaps-education**	6.07	0.01
Support gaps employment	0.74	0.39
Support gaps-Relationships	0.94	0.33
Race by		
Housing satisfaction	0.29	0.59
Educational satisfaction	1.75	0.19
Employment satisfaction	0.05	0.82
Relationship satisfaction	0.80	0.37
Support gaps-housing	0.47	0.49
Support gaps-education**	7.03	0.01
Support gaps-employment	0.55	0.46
Support gaps-Relationships	0.47	0.50

<0.001***, <0.01**, <0.05*

Network Size and Satisfaction. In order to gain a better understanding of the relationship between network size and satisfaction with their overall support network and individual support domains t-tests were used to examine network size and network satisfaction, individual domain satisfaction, and missing support across the domains. Network size did not

have a statistically significant relationship with overall network satisfaction, individual domains, or missing support.

Table 11: T Test Results (N=58)

Variables	t	p
Network size by:		
Housing satisfaction	1.63	0.11
Educational satisfaction	1.03	0.31
Employment satisfaction	0.77	0.44
Relationship satisfaction	0.61	0.54
Support gaps-housing	0.46	0.65
Support gaps-education	0.05	0.96
Support gaps-employment	0.15	0.88
Support gaps-Relationships	0.78	0.44
Missing support in at least one domain	0.49	0.63

In summary, on average youth reported having seven people in their support network and feeling close or very close to the majority of network members. Youth reported moderate levels of satisfaction with the support provided by their overall network and in each individual support domain. While there was a moderate level of satisfaction reported, many youth also reported gaps in support or missing support in one or more domain (housing, education, employment, relationships, and transportation). Demographics did not change the level of network satisfaction or gaps in support. Additionally, network size did not influence domain satisfaction or gaps in support.

Research Aim 2

Research aim 2 aims to gain a better understanding of whether foster care experiences were related to social network development, composition, and satisfaction.

Network Size. The current study found no statistically significant relationship between network size and number of placements, years spent in foster care, age the youth entered foster care, age the youth left foster care, the total number of placements while in care, or the length of

time the youth spent in foster homes, group homes, residential facility, psychiatric facility, and ILP. This remained true when placement type was recoded to be a dichotomous variable (youth had either been placed there or not) and when group homes, residential facilities, and psychiatric facilities were combined into one category denoting a congregate care setting.

Network Satisfaction. Foster care characteristics did not influence network satisfaction. Overall network satisfaction was not related to age entering foster care, total time spent in foster care, age the youth left foster care, or the type of placement and length spent in placement types while in care.

However, foster care characteristics were related to several individual domain satisfaction levels. Youth who left care later were more likely to be satisfied with their housing situation (mean age=19.57) compared to youth who left care earlier and were less satisfied with their housing (mean age=18.28). Youth who were placed in a foster home were more likely to be satisfied with their housing support than youth who were not placed in a foster home. Youth who were placed in a foster home were more likely to be satisfied with their relationship supports than youth who were not placed in a foster home. Please see Table 12 for a more detailed description of the individual domain satisfaction results.

Table 12: Support Domain Satisfaction and Network Characteristics

Variable	t	χ^2	P
Education Satisfaction			
Years in care	.33		0.74
Age enter care	.29		0.77
Age leave care	1.59		0.12
Placement in ILP		1.87	0.17
Placement in foster home		0.36	0.55
Placement in congregate care		0.10	0.75
Employment satisfaction			
Years in care	0.41		0.68
Age enter care	0.69		0.50
Age leave care	0.67		0.51
Placement in ILP		0.32	0.57
Placement in foster home		0.72	0.40
Placement in congregate care		0.00	0.98
Housing satisfaction			
Years in care	1.51		0.14
Age enter care	0.42		0.68
Age leave care*	2.0		0.05
Placement in ILP		2.75	0.09
Placement in foster home***		8.16	0.00
Placement in congregate care		1.20	0.27
Relationship satisfaction			
Years in care	0.19		0.85
Age enter care	0.80		0.43
Age leave care	1.29		0.20
Placement in ILP		0.32	0.57
Placement in foster home*		3.88	0.05
Placement in congregate care		0.00	0.99

<0.001***, <0.01**, <0.05*

Support Gaps. Foster care characteristics, including placement in a congregate care setting (group home, residential facility, or psychiatric facility), placement in an ILP, placement in a foster home, years in care, age enter foster care, number of placements and age leaving foster care were not related to having any missing support, or gaps in support. Support gaps in housing, education, employment, and relationships were not related to any foster care characteristics.

Network Composition. The composition of networks was related to different foster care characteristics. The placement type youth experienced while in care did influence the composition of their network. Youth who were placed in an independent living placement were more likely to have formal supports (47% of their networks were composed of formal supports) than youth who were not placed in an ILP (29% of their networks were composed of formal supports). Youth who were placed in a group home were less likely to have formal supports (mean formal supports=0.29) than youth who were not placed in a group home (mean formal supports=0.45). Youth who had more placements were more likely to have formal supports than youth who had fewer placements. Youth who had been placed in an independent living placement were less likely to have foster family members in their network (mean foster family supports=.11) than youth who had not been in an ILP (mean foster family supports=0.23). Lastly youth who had been in care for a shorter amount of time were more likely to have biological family members in their network than youth who had been in care longer. Table 14 provides a more detailed description of the findings, in the tables there are both, T-test and chi square results, depending on the variable type. Foster care characteristics including age entering foster care, age leaving foster care, number of placements, and the total number of years spent in care were not significantly related to the type of network member.

Table 13: Network Member Characteristics and Foster Care History

Variable	t	r ²	p
Percent of formal network members			
Placement in an ILP*	2.43		0.02
Placement in foster home	0.89		0.38
Placement in a congregate care setting*	2.11		0.04
Years in care*		0.26	0.05
Age enter foster care		-0.10	0.44
Age leaving foster care		-0.11	0.41
Number of placements*		0.27	0.04
Percent of informal network members			
Placement in an ILP	0.56		0.58
Placement in foster home	0.45		0.66
Placement in congregate care setting	0.17		0.87
Years in care		0.08	0.54
Age enter foster care		0.05	0.70
Age leaving foster care		0.15	0.26
Number of Placements		0.00	0.99
Percent of foster family network members			
Placement in an ILP*	2.22		0.03
Placement in foster home	1.67		0.10
Placement in congregate care setting	0.93		0.36
Years in care		0.07	0.60
Age enter foster care		-0.22	0.11
Age leaving foster care		0.11	0.44
Number of placements		-0.14	0.32
Percent biological network members			
Placement in an ILP	0.42		0.68
Placement in foster home	1.88		0.06
Placement in congregate care setting	1.57		0.12
Years in care***		-0.37	0.00
Age enter foster care		0.16	0.22
Age leaving foster care		-0.09	0.52
Number of placements		-0.17	0.20

<0.001***, <0.01**, <0.05*

Adult Outcomes. Several outcomes were measured at the time of data collection, including lifetime homelessness, past year homelessness, highest level of education completed, if the youth was currently in school, and if the youth were currently working. While the data are cross sectional, and therefore causality cannot be examined, the following section will examine if

there was a relationship between adult outcomes, demographics, foster care characteristics, and network characteristics.

Approximately one quarter of the sample 24.8% (n=26) had experienced homelessness at some point in their lifetime (could have occurred prior to entering the foster care system); 12.1% (n=7) of youth who reported experiencing homelessness in the past year, and 22.4% (n=12) of youth reported experiencing housing instability at some point in the past year. Youth who reported being homeless in the past year could also report experiencing housing instability; the two were not mutually exclusive categories. 82.7% (n=48) of youth reported their highest level of education at or above a high school diploma. Over half of the sample, 60.3% (n=35), were currently enrolled in school or had completed the most recent semester of school (several interviews were done over the summer) and 60.3% (n=35) of youth reported being currently employed, either full or part time. Non-White youth were less likely to currently be in school ($\chi^2=4.97$, $p=0.03$) and less likely to experience housing instability ($\chi^2=4.44$, $p=0.35$) than White youth. Other demographics were not statistically significant.

Table 14: Adult Outcomes

Variable	N	%
Lifetime homelessness	26	44.8
Past year homelessness	7	12.1
Unstable housing	13	22.4
Currently enrolled in school	35	60.3
Currently employed	35	60.3
High School diploma/GED	48	82.7

Foster Care Experiences and Adult Outcomes. Young adult outcomes did not vary based on age the youth left care, the age youth entered care, the total time spent in foster care, or the number of placements they were in. However, youth who reported being placed in a congregate care setting, reported higher rates of lifetime homelessness than youth not placed in a

group care setting. Youth placed in a foster home reported higher level of housing instability in the past year than youth not placed in a foster home.

Table 15: Adult Outcomes and Foster Care Characteristics

Variable	t	χ^2	p
Currently Employed			
Placement in an ILP		0.07	0.79
Placement in a foster home		2.24	0.13
Placement in congregate care		0.50	0.48
Years in care	0.52		0.60
Age enter Care	0.48		0.64
Age leave care	0.63		0.53
Number of Placements	0.10		0.92
Currently in School			
Placement in an ILP		0.65	0.42
Placement in a foster home		0.19	0.66
Placement in congregate care		0.50	0.48
Years in care	0.68		0.50
Age enter Care	0.06		0.95
Age leave care	0.73		0.47
Number of Placements	1.09		0.28
Lifetime Homelessness			
Placement in an ILP		0.00	1.00
Placement in a foster home		1.58	0.21
Placement in congregate care*		3.77	0.05
Years in care	1.31		0.19
Age enter Care	0.05		0.96
Age leave care	0.83		0.41
Number of Placements	0.68		0.50
Past year homelessness			
Placement in an ILP		0.20	0.66
Placement in a foster home		0.07	0.79
Placement in congregate care		1.22	0.27
Years in care	0.32		0.75
Age enter Care	0.93		0.36
Age leave care	1.17		0.26
Number of Placements	0.69		0.50
Unstable housing			
Placement in an ILP		0.89	0.34
Placement in a foster home**		6.83	0.01
Placement in congregate care		3.20	0.07
Years in care	0.51		0.61
Age enter Care	1.76		0.08
Age leave care	0.35		0.73
Number of Placements	1.71		0.09
<0.001***, <0.01**, <0.05*			

Network Characteristics and Adult Outcomes. Adult outcomes did vary significantly on a number of network characteristics including network size and the composition of the social networks. Youth with larger social networks were more likely to currently be in school (mean network size=8.34) than youth with smaller networks (mean network size=5.43). Youth were more likely to be in school if they had more formal supports (mean formal supports=0.47) than if they had fewer formal supports (mean formal supports=0.25). However, youth with more informal support were less likely to experience housing instability (mean informal supports=. 41) than youth who had more informal supports (mean informal supports=0.22), and youth with more formal support were more likely to experience housing instability (mean formal supports=0.43) than youth with fewer formal supports (mean formal supports=0.20).

Table 16: Adult Outcomes and Network Characteristics

Variable	t	p
Currently Employed		
Network size	0.08	0.93
Percent formal network members	0.70	0.57
Percent informal network members	0.97	0.34
Percent foster family	0.64	0.52
Percent biological family	0.89	0.38
Currently in School		
Network size*	2.11	0.04
Percent formal network members**	2.90	0.01
Percent informal network members*	2.23	0.03
Percent foster family	0.02	0.99
Percent biological family	0.70	0.48
Lifetime Homelessness		
Network size	1.36	0.18
Percent formal network members	0.70	0.49
Percent informal network members	0.08	0.93
Percent foster family	1.15	0.26
Percent biological family	1.27	0.21
Past year homelessness		
Network size	0.45	0.66
Percent formal network members	0.43	0.67
Percent informal network members	0.50	0.62
Percent foster family	0.46	0.65
Percent biological family	0.68	0.50
Unstable housing		
Network size	0.44	0.66
Percent formal network members**	2.57	0.01
Percent informal network members*	2.19	0.03
Percent foster family	0.42	0.68
Percent biological family	0.58	0.57

<0.001***, <0.01**, <0.05*

The results from the bivariate analyses reported above were used to inform several regression models. The first model's dependent variable was network size, and independent variables included foster care history, controlling for demographics. This model did not yield any statistically significant results. The other network variables examined were housing satisfaction and relationship satisfaction. Satisfaction in education and employment were not included due to the lack of statistically significant results in the bivariate analyses. For model 1: DV: education

satisfaction (1= very satisfied 0= anything less than very satisfied) there were no statistically significant results across age, gender, race, and foster care background. Model 2: DV: relationship satisfaction, there were no statistically significant results.

The next set of regression models examined network composition on a number of demographics (gender, race, age) and foster care background (placement type, age entering and leaving care, and total years in care). For Model 1: DV: percent formal network members there were no statistically significant results across age, gender, race, and foster care background. For Model 2: DV: percent informal network members there were no statistically significant results across age, gender, race, and foster care background. For Model 3: DV: percent biological family network members there were no statistically significant results across age, gender, race, and foster care background. For Model 4: DV: percent foster family network members there were no statistically significant results across age, gender, race, and foster care background.

Each adult outcome used in the bivariate analyses (current employment, current education, lifetime homelessness, past year homelessness, and unstable housing) was used as the dependent variable in five separate regression models (DVs: current employment, current education, lifetime homelessness, past year homelessness, and unstable housing). The variables included in these models were demographics (gender, race, age) and network characteristics (percent of network that was formal, informal, biological family, and foster care, and the overall network size). However, none of the models produced statistically significant results.

Research Aim 3

Research aim 3 seeks a better understanding of the relationship between social networks and access to and mobilization of social capital.

Measuring Social Capital. Social capital was measured by the occupational prestige present in a given network, based on the assumption that higher prestige in the network indicated higher levels of social capital.

Related Professions (All Networks). Respondents listed a total of 424 network members. Of these, participants could provide information about profession for 327 identified network members. Hence, there were 97 members who did not have professions listed in the dataset. Network members with missing professions are those members who the youth either could not remember their profession or the youth listed their profession as they do not work. Across all networks, there were 27 members who were listed as students and eight members who were retired. People connected to social service, such as social workers, therapist, and case workers comprised the largest group of network members. There were 45 network members who were connected to the educational system including advisors and teachers. There were 37 network members who had retail/service industry jobs including waitresses, cashiers, and concierge. There were 31 network members who had labor jobs including construction, maintenance, and mechanics.

Occupational Prestige (All Networks). Occupational prestige is used to assess the amount of social capital that may be available to a young person. Occupational prestige scores were calculated by examining the amount of education required and the potential income for any given profession. Occupational prestige could be important for foster youth as a way to connect them to needed education and resources to further their career. For occupational prestige, the mean across all networks was 47.4, ranging from 0 (students) to 75 (college professors). Additionally, there were very few occurrences where the future career goals of the youth were the same as their network members' current career. Of the 327 professions known there were

only 41 matching occurrences (of all youth and network members), or times that the network member's career matched the young person's career aspirations. Social capital was also examined by the difference in the future career prestige goal of the youth and the network members' current prestige score. The mean difference between occupational prestige of the youth and their network members' occupational prestige was 6.24 prestige points and ranged from -64 to 74. The difference in network member occupational prestige and youth occupational prestige was then used to examine access to and mobilization of social capital.

Individual network Access to Social Capital. In order to group each individual network member with the young person who identified them as a supportive adult, a multilevel model regression was utilized. This allowed for the range and overall prestige to be examined at each individual network level instead of collapsing across all youth. This is the amount of social capital within the network potentially accessible to a youth. However, this indicator does not assess a youth's ability to mobilize that social capital.

Professional Prestige. Model 1 of the multi-level models examined if there was a relationship between professional prestige available in one's network and foster care and network characteristics, controlling for basic demographics. The Dependent variable in model 1 was professional prestige. Model 1 had an interclass correlation (ICC) of 0.09 indicating that 9% of the variance in the model occurred at the network level and justified continuing with the multilevel model approach. In model 1 informal network members ($t=-7.72$, $p<0.001$), biological family network members ($t=-4.47$, $p<0.001$), or foster family network members ($t=-5.49$, $p<0.001$) had lower levels of occupational prestige than formal network members. Please see Table 17 for a full description of model 1 results.

Table 17: Model 1: Occupational Prestige Multilevel Model Results

Variable	t	p
Youth (level 2) characteristics		
Female (ref: Male)	-0.69	0.49
Race- Black (ref: White)	0.11	0.92
Race- Hispanic (ref: White)	-0.58	0.56
Race- Other (ref: White)	-0.88	0.38
Age enter foster care	0.28	0.78
Age leaving last placement	-0.41	0.68
Number of placements	0.60	0.55
Placement in congregate care	-1.24	0.22
Placement in an ILP	-0.02	0.98
Network member (level 1) characteristics		
Informal network members (ref: Formal)***	-7.72	0.001
Biological network members (ref: Formal)***	-4.47	0.001
Foster family network members (ref: Formal)***	-5.49	0.001
<0.001***, <0.01**, <0.05*		

Related Profession. Model 2 of the multilevel models examined the relationship between having a person in your network with a related profession and foster care and network characteristics, controlling for demographics. The dependent variable in model 2 was related profession. Model 2 had an ICC of 0.65 or 65% of the variance was accounted for at the network level and justified continuing on with a multilevel model approach. In model 2, no indicators at the youth or network level were significant. Ninety-seven network members did not have a profession, creating a high number of missing values for model 2. Due to the lack of distribution, being placed in a foster home (N=54) was excluded from the model.

Table 18: Model 2: Related Profession Multilevel Model Results (Categorical)

Variable	t	Odds Ratio	
		Lower	Upper
Youth (level 2) Characteristics			
Female (ref: Male)	0.28	0.03	2.32
Race- Black (ref: White)	0.25	0.02	3.65
Race- Hispanic (ref: White)	0.14	0.00	4.94
Race- Other (ref: White)	0.12	0.00	3.98
Age enter foster care	1.07	0.88	1.30
Age leaving last placement	0.96	0.86	1.06
Number of placements	0.98	0.80	1.22
Placement in congregate care	0.84	0.10	6.88
Placement in an ILP	0.13	0.01	1.09
Network member (level 1) Characteristics			
Informal network members (ref: Formal)	0.50	0.13	1.90
Biological network members (ref: Formal)	1.14	0.23	5.64
Foster family network members (ref: Formal)	0.26	0.05	1.44
<0.001***, <0.01**, <0.05*			

Difference in Occupation Prestige. In addition to the categorical analysis of related profession where the youth either did or did not have someone in their network with a closely related career to their future career aspirations, the difference between prestige scores was calculated. This difference allowed an examination of similar prestige levels even if the network members were in a different career. This indicates having the ability to access resources regarding the necessary level of education and training required for different careers of similar occupational prestige. The dependent variable in model 3 was difference in occupational prestige. The ICC for Model 3 was 0.36 meaning that 36% of the variance in the model occurred at the network level. In model 3 women ($t= 4.14, p<. 001$), youth who were older when they left care ($t= 2.27, p<. 05$), and youth who spent time in a congregate care setting ($t= 2.52, p<. 01$) had larger gaps in their career aspirations compared to their network members' aspirations. Informal ($t= 6.92, p<. 001$), formal ($t=3.93, p<. 001$), and biological ($t=4.15, p<. 001$) network members had larger career gaps than formal network members.

Table 19: Model 3: Occupational Prestige Difference Multilevel Model Results

Variable	t	p
Youth (level 2) Characteristics		
Female (ref: Male)***	4.14	0.001
Race- Black (ref: White)	-1.86	0.06
Race- Hispanic (ref: White)	-0.30	0.76
Race- Other (ref: White)	-0.06	0.95
Age enter foster care*	2.27	0.02
Age leaving last placement	1.87	0.06
Number of placements	1.58	0.11
Placement in congregate care**	2.52	0.01
Placement in an ILP*	-2.11	0.04
Network member (level 1) Characteristics		
Informal network members (ref: Formal)***	6.92	0.001
Biological network members (ref: Formal)***	3.93	0.001
Foster family network members (ref: Formal)***	4.15	0.001

<0.001***, <0.01**, <0.05*

Absolute Value Occupational Prestige. While model 3 examined the occupational prestige score difference between youth and their network members, it indicated that the direction of the gap was important. Therefore, someone who was 10 points below the youth looked different than a network member who was 10 points above of the youth. However, in either scenario, the network member may not be any more or less equipped to support the youth than the other. A network member with a higher prestige score than the youth, indicating a higher level of education and income, may not be any more likely to help a youth who wants to be a mechanic than a network member who has a lower occupation prestige score than the youth, indicating lower levels of education and income. In this case both the network member with a high prestige score and a network member with a low prestige score may not have the skills and resources to help the youth become a mechanic. Therefore, model 4 examines the gap in prestige using the absolute value of the difference, meaning that the direction of the gap is not important, rather the model only examined how big of a gap exists. Model 4 had an ICC of 0.18, or 18% of the variance occurred at the network level. Using the absolute value of the difference produced

considerably different results than model 3. In model 4 Black youth ($t=-2.36$, $p<0.01$) were significantly more likely than White youth to have more consistent aspirations with their network members (i.e., have a smaller gap in between their future aspirations and their network members' prestige). Youth who left care older ($t=3.18$, $p<0.001$) were more likely than younger youth to have a large gap in their network. Additionally, informal network members ($t=3.07$, $p<0.01$) were more likely than formal support networks to create large gaps in networks.

Table 20: Model 4: Occupational Prestige Difference (absolute value) Multilevel Model Results

Variable	t	p
Youth (level 2) Characteristics		
Female (ref: Male)	1.20	0.23
Race- Black (ref: White)**	-2.36	0.01
Race- Hispanic (ref: White)	-0.11	0.91
Race- Other (ref: White)	-0.32	0.75
Age enter foster care	1.05	0.29
Age leaving last placement***	3.18	0.001
Number of placements	-0.44	0.66
Placement in foster home	-0.04	0.97
Placement in congregate care	0.35	0.73
Placement in an ILP	0.13	0.90
Network Member (level 1) Characteristics		
Informal network members (ref: Formal)**	3.07	0.01
Biological network members (ref: Formal)	1.06	0.29
Foster family network members (ref: Formal)	-0.04	0.96

<0.001***, <0.01**, <0.05*

Individual Network Mobilization of Social Capital. The preceding section examines access to social capital among foster youth. This allowed for a better understanding of the amount of social capital that is available in a network. However, it does not examine a youth's ability to mobilize their social capital in order to gain the resources available. The following section examines the mobilization of social capital.

Communication. Model 5 examined the relationship between frequency of contact with network members and foster care and network characteristics, controlling for demographics. The

ICC for model 4 was 0.22, or that 22% of the variance in the model occurred at the network level.

In model 4 youth with more placements ($t=-2.91$, $p<0.01$) had less frequent contact with their network members than youth with fewer placements. Informal network members ($t=-6.92$, $p<0.001$), biological family network members ($t=-4.56$, $p<0.001$), and foster family network members ($t=-2.99$, $p<0.01$) had less frequent contact than formal network members.

Table 21: Model 5: Frequency of Contact Multilevel Model Results

Variable	t	p
Youth (level 2) Characteristics		
Female (ref: Male)	0.49	0.62
Race- Black (ref: White)	0.88	0.38
Race- Hispanic	-1.36	0.18
Race- Other	-0.21	0.84
Age enter foster care	0.97	0.33
Age leaving last placement	0.35	0.72
Number of placements**	-2.91	0.01
Placement in foster home	-0.89	0.37
Placement in congregate care	1.83	0.07
Placement in an ILP	0.99	0.32
Network Member (level 1) Characteristics		
Informal network members***	-6.92	0.001
Biological network members***	-4.56	0.001
Foster family network members**	-2.99	0.01
<0.001***, <0.01**, <0.05*		

Chapter 5

Introduction

This study aimed to gain a better understanding of the social supports and social networks of transition-aged foster youth. The current study used a social network approach to collect and analyze data from youth between the ages of 18 and 25 in the Commonwealth of Virginia. The data included basic demographic variables, foster care history, and several measures of social networks (such as, number of supportive people in a youth's life), social support (advice, emotional, informational, instrumental) and social capital (access and mobilization).

These variables and the valuable information gained from the participants were used to answer three main research questions:

1. What is the composition of social networks among transition-aged youth?
 - d) Who provides social support for transition-aged foster youth?
 - e) What types of support do they provide?
 - f) To what extent do social networks help them prepare for productive adult roles in key domains (i.e., housing, education, relationships, parenting, employment, transportation)?
2. To what extent are social network composition, development, and satisfaction related to youth experiences in the foster care system?
 - d) Do youth with longer tenure in care have more professional-intensive support networks?
 - e) Do youth with more placement instability while in care have less sufficient networks?
 - f) To what extent are youth satisfied with levels and types of support in their social networks?
3. To what extent do social networks affect youth access to and mobilization of social capital?

Summary of Study

In order to answer the research questions in this study, a measurement tool was created based on a social network analysis tool previously created by Blakeslee (2015) and the ABCL (Achenbach, 1997). The ABCL is an established measure and has been used with transition-aged youth in the past. However, the social network assessment had to be expanded in order to incorporate the range of social networks, social support, and social capital of interest in the current study.

Pilot study. In order to ensure the new survey worked as intended, a multi-pronged pilot study was conducted. First the measurement tool was presented to a group of transition-aged foster youth currently serving on an advisory board and trained to give feedback on products and services created for the population. These youth were able to give extensive feedback regarding the wording and content of the survey. They also provided feedback on the format of the survey and emphasized the importance of digitalizing the survey. Once the feedback from the first group of youth was incorporated the updated survey was given to a group of transition-aged foster youth currently attending an independent living program at a local agency. The second group of youth were considerably more diverse and had not been trained to critique products and services. The second group of youth resembled the general population of transition-aged foster youth. They provided feedback on comprehension of the questions, the environment best suited to conduct the interviews, and the content.

Full study. Data collection for the current study occurred across Virginia. Due to the lack of a comprehensive list of transition-aged foster youth in Virginia, a close relationship with individual localities was created in order to identify which youth in the area were eligible. Of the youth who received the recruitment materials, 58 completed interviewer administered surveys,

either by phone or in-person. There was no difference in data quality or information between participants who completed it in person or over the phone. The interviews took between 20 minutes and an hour and each participant was provided a \$25 gift card. Participants who did not complete the interview or were deemed ineligible after the interview started were still provided the gift card, but all data were excluded from the analyses.

Data Analyses. The analyses were broken into descriptive statistics, bivariate statistics, and multivariate statistics. Descriptive statistics included information on race, gender, and disability reported by the participants. Next, information on foster care history was gathered including age entering foster care, age leaving foster care, number of placements, and placement type. The results from the descriptive statistics were used to inform the bivariate statistics and multivariate statistics by providing an understanding of the distribution of data for each variable of interest.

Bivariate statistics were utilized to understand the relationship between network characteristics and demographics as well as network characteristics and foster care history. Bivariate statistics were also utilized to examine the relationship with support satisfaction and network characteristics, demographics, and foster care history. Lastly, adult outcomes and demographic and foster care history were examined.

Multivariate statistics were utilized to gain a better understanding of the relationship among the bivariate findings controlling for basic demographics and foster care history. Multilevel models were used to examine the access to and mobilization of social capital among the network when controlling for individual youth characteristics. Multilevel models were used to examine all network level questions. Multilevel models allow for all actors to be clustered within their network and variations across networks to be examined.

Discussion of Results

Research aim 1. Research aim 1 examined the composition of the social networks of transition-aged foster youth. Consistent with past research, the majority of youth reported having individual(s) in their life that had helped or tried to help them in the past year, with the average number of network supporters being 7.1. Youth, regardless of race or gender, reported having someone to rely on for support. However, network size was not related to network satisfaction and gaps in support indicating that more information is needed about the types of relationships and access to support available within a network. Prior research indicates that most former foster youth report having someone in their life they rely on for support (Blakeslee, 2015; Courtney, et al., 2010). However, the current study aimed to explore not only if youth had supportive relationships, but also who they were relying on and for what type of support.

In addition to having good size networks, most (N=57) youth reported having at least one person to provide them support in advice, emotional support, constructive criticism, and/or resources as well as support in housing, education, employment, transportation, and relationships. While most youth did report having access to supportive adults and support types/domains, there were youth in the sample varied in the level of support provided by their network. While few youth (n=1) reported having no one across all support domains, more youth (n=31) did report gaps in support. These gaps in support or lack of supportive relationships offer important insight into the range of networks and supports available to youth aging out of foster care. It is important to understand why some youth report having networks as large as 36 people and others report having networks as small as zero people in order to provide services and facilitate relationships for youth as they leave foster care.

While most (N=57) youth reported having people in their network, they reported this support coming from a variety of people. Consistent with past research, many youth (80.7%) reported at least one formal network member, or people connected to the child welfare system, which they relied on for support (Blakeslee, 2015; Perry, 2006). However, only 17 youth were still in extended foster care. This potentially indicates that youth are staying connected to former case workers or social workers even after their formal foster care years are over. This could have important policy and practice implications for the services and supports that are provided to caseworkers who have growing job demands and minimal resources. Growing caseloads of youth in care and out of care could put a strain on the available resources for foster care workers. Emotional exhaustion and job stress, as well as an imbalance of demands and resources may lead to increased burnout among child welfare workers (Boyas, Wind, & Ruiz, 2013; Lizano & Barak, 2015). However, it has been shown that increased resources, supervision, and influence in cases can lead to increased job satisfaction for child welfare workers (Boyas, Wind, & Ruiz, 2013), reinforcing the importance of specialized supports for foster care workers working with young adults and more resources to help youth after they age out of care.

While some (n=27) youth reported having support across all domains, 53.5% (n=31) reported missing support in at least one domain (housing, education, employment, transportation, relationships). Youth were most likely to report not having support in housing, education, and transportation. Among types of support, youth were most likely to report missing support in emotional support and resources. While this was not true for the majority of the participants, it is important to understand the differences between youth who do and do not report having support in certain domains. These differences were neither race nor gender based, but may indicate an underlying, unaccounted for difference in the current study. Gaps in educational support were

reported more frequently among women and minority youth. It is important to bolster support across youth, but a better understanding of youth who may have decreased access to support is still needed.

Research aim 2. In order to better understand the impact that foster care histories and experiences may have on network characteristics and social support, research aim 2 utilized bivariate statistics to examine differences across youth. Youth who left care later were more likely to be satisfied with their housing support than youth who left care earlier and/or were not placed in a foster home. These findings may indicate the importance of extended foster care and allowing youth to leave care after the age of 18. This finding is consistent with prior research arguing that youth who stay in care past 18 experience better adult outcomes than youth who leave care at 18 (Courtney, et al., 2010). Youth who were placed in a foster home also reported higher satisfaction with their relationships than youth who were not placed in a foster home, reinforcing the importance of increasing access to foster homes for older youth in foster care.

Placement type was also related to access to different types of network members for foster youth. Youth who spent time in an ILP or group home, as well as youth who had more placements were more likely to have formal supports in their network than youth who did not have experience in an ILP or group home or had fewer placements. This may indicate that while older youth in care experience more placement instability than younger youth, this instability may increase their access to formal supports such as social workers and case managers. Youth who were placed in an ILP reported having more foster family support in their network than youth who were not, potentially indicating that youth in independent living placements are more likely (compared to their peers who did not) to have spent time in a foster home. This could indicate a difference in knowledge about ILP or gaps in access to ILP among youth in different

placements. Past research has shown that youth who have increased placement stability and enter care at an older age are more likely to receive ILS than youth who had greater placement instability (Scott, 2013).

Youth who spent less time in care were more likely to have biological family members in their networks than youth who spent more time in care. This may potentially indicate that the longer a youth stays in care the less likely they are to maintain a close relationship with their family of origin (Perry, 2006).

Research aim 2 also examined the relationship between adult outcomes and foster care background. Youth who were placed in a congregate care setting were more likely to experience homelessness at some point in their lifetime than youth who did not experience homelessness. Prior research shows that youth who experience congregate care are more likely to experience adverse adult outcomes than youth who do not experience congregate care (Pecora et al., 2009; Ryan, Marshall, Herz, & Hernandez, 2008). These variations in outcomes based on placement may reinforce the need to tailor the placement type to the individual youth.

Types of network members also influenced young adult outcomes. Youth with more informal network members experienced less housing instability than youth with more formal network members. However, the latter had higher levels of currently enrolled students than the former. This could indicate that having a range of network members may help youth experience positive adult outcomes across the spectrum, rather than having network members of the same group and experiencing positive adult outcomes in one domain.

Research aim 3. Research aim 3 examined the access to social capital and mobilization of social capital. Social capital varied significantly across networks. Informal network members, biological network members, or foster family network members had lower levels of both access

to social capital, and mobilization of social capital than formal network members. These youth were less likely to have people in their network with high prestige scores, related professions, or professions with similar prestige rankings than youth who had more formal network members. Women were also less likely than men to have a network member with a matching profession. Some youth (26.3%) reported that over half of their network consisted of formal supports, or people connected to the foster care system. Formal supports had higher occupational prestige than informal, biological and foster family network members. Youth were staying connected to foster care related supports even after they left care and these supports were providing them with high levels of social capital. However, formal support members may have higher social capital due to the nature of having to be employed to be in the formal support category.

Within the informal group, friends had the highest level of unemployment, with 36% reporting either no employment or missing employment. Given the age bracket of these youth, their friends may be still in school or not yet working. However, it could also indicate that youth are connected to similarly aged peers who are fairly disconnected from employment. If their peers are still in school, relationships with such individuals could create increased social capital as they age and enter the workforce. Longitudinal work would be necessary to examine these relationships over time.

In addition to examining whether youth had someone within their network in a related profession, the difference between the aspirational career occupational prestige of youth and the network members' occupational prestige was examined. This allowed for a better understanding of common or closely related occupations. In the first model, the direction of the relationship between occupational prestige of the youth and network members' occupational prestige was important. The direction indicated if the youth had a higher prestige score than the network

member, or if the network member had a higher prestige score. Youth who had been placed in an ILP had fewer gaps in their occupational prestige than youth who had not been in an ILP. Formal support network members created less of a gap in network occupational prestige than informal, biological, and foster family network members. Youth in congregate care had larger gaps in occupational prestige scores than youth in a foster home, corresponding with past research on the potential lack of resources in congregate care (Goodkind, Schelbe, & Shook, 2011; Havlicek, 2011; Scott, 2013). Youth who entered care when they are older had higher gaps in occupational prestige than youth who entered care younger, potentially indicating a need to increase supports to youth who enter care as older youth and help connect them to foster care related supports as well as maintain relationships with natural supports. These findings are consistent with past research demonstrating that gaps in social capital among former foster youth can lead to disadvantages in employment and education (Okpych & Courtney, 2014).

However, the directionality of the gap in occupational prestige may not be as important as examining the gap in support. It may matter less if the youth's career goal is to be a neurosurgeon, but everyone in their network is a mechanic; or, if the youth wants to be a mechanic, but everyone in their network is a neurosurgeon. In either situation, and based on their network, the youth may not have the resources to further their career goals. Therefore, the absolute value of the difference between the youth's future career occupational prestige and their network members' occupational prestige was calculated. In this model, Black youth were more likely than White youth to have smaller gaps in occupational prestige. Youth with formal supports and youth who left care older had smaller gaps in occupational prestige. These findings reinforce prior research demonstrating that youth who stay in foster care have more access to

social capital and the need to extend foster care and allow youth to stay connected to the system past age 18.

Frequency of contact examined the mobilization of social capital. Youth who contact network members frequently may be more likely to mobilize their network in order to access resources. Youth with a higher number of placements reported less contact with network members than youth with fewer placements. Informal, biological, and foster family members prevented more infrequent communication than formal network members. This reinforces the need to make sure that youth placements are safe and stable, and experience minimal placement disruptions. This potentially indicates that foster care related supports are having frequent contact with youth and could potentially increase their access to resources and social capital.

Implications of Study

Based on the findings from this study there are several practice and research implications for the social work field, specifically those who work with older foster youth.

Practice. As previously discussed, many youth reported relying on people they knew through the foster care system, regardless of their involvement in extended foster care. This is positive, in that it suggests professionals are remaining connected to youth beyond the time when they are occupationally required to do so. Resources and training should be provided to foster care workers to ensure that the needed resources to work with older foster youth are available.

More emphasis on transition planning and time for youth to transition out of care is needed. Data suggest that youth who stayed in care longer had more social capital available to them in their network. This could create a need for youth to have more information about extended foster care and the requirements to stay in care past age 18. Regardless, a more gradual

shift to independence may allow for youth to better prepare and work with their network to ensure a smooth transition out of care.

Independence may be the final goal for most transition-aged youth, but interdependence is an important step in the process. Most (n=57) youth report having at least one supportive adult in their life, indicating that youth make connections that are both foster care related and not foster care related. Both formal and informal relationships should be supported and encouraged while the youth is in foster care and maintained as the youth leaves foster care. Allowing youth to involve supportive adults of their choosing has been shown to increase participation in transition planning and overall satisfaction with their foster care experience (Nesmith & Christophersen, 2014). The current data suggest that youth do identify supportive adults (both foster care related, familial, and informal supports), who could possibly be involved in transition planning.

Research. There were also several research-centered implications based on the current study. The current study provides a better understanding of the use of an egocentric social network design with transition-aged foster youth. This approach focuses on youth perspective of social support and social capital, thereby allowing youth to express whom they view as supportive. This approach does not take into account how the supportive adults view the relationship or whom the foster care workers would report as important connections. It allows for perceived and received support to be examined. The youth reported on people who have helped them or tried to help them in the past year, or actually provided support. However, such reports were not confirmed with the identified adults. So, an adult whom the youth perceived as providing emotional support may or may not have viewed the situation in the same light. Obtaining reciprocal information from named network members could provide important

information about how youth are connected to network members and more information about how the network members perceive their role. While this may be important in future studies, it was important to understand how youth perceive the situation and their access to support for the current work.

The use of the sociogram confirms past research on the importance of visually depicting networks to help the participant think through their network (Tracy & Whittaker, 2015). In the current study, the use of a visual network facilitated discussions on gaps in support or people they wished were in their life but were not. This allowed for a better understanding of their perceived gaps in their support network. Using technology to enhance these visual depictions can allow for more in-depth analyses of networks with participants. Future research should also examine if visual depictions are helpful in guiding a participant through the thought process of identifying supports.

Policy Implications

This research reinforces the need for better policies around working with and supporting youth as they transition out of the foster care system. This research also reinforces several policies aiming to increase youth voice and participation in their foster care experience. The current study demonstrated that most youth report having someone to rely on for support. These supportive adults should be included in transition planning. In order to fully engage supportive adults, child welfare agencies should build on the provision in the Preventing Sex Trafficking and Strengthening Families Act (2014) to assure that supportive adults are consistently engaged to help youth as they age out of the foster care system.

Most youth in the sample reported having someone to rely on for support as they transitioned out of the foster care system. Network size was not related to network satisfaction or

gaps in support, indicating a need for more tailored and individualized focus as youth are transitioning out of care. Network size was related to several adult outcomes (such as school enrollment). Policies should continue to strive for a balance of supportive adult opinions and youth voice in the transition planning process. The current study showed it may be a combination of the number of supportive adults and the quality of those relationships. Additionally, policies should continue to allow for multiple types of support in a young person's life. Youth who were placed in an independent living facility were more likely to have formal supports in their network, but these formal supports may not be available to youth after they leave that placement. Policies should continue to allow youth to identify supportive adults already in their life to bring into their transition planning. Allowing for a stronger combination of system-related supports and broader informal supports may provide more stability to networks as youth leave care.

The youth in the study reported relying on formal supports after they were no longer in foster care. This could indicate a need for better policies to help support these youth and their supportive adults. As case loads grow and more youth rely on formal supports past 18 or 21, there may be a policy needed to expand the age youth can receive support through the foster care system. Additionally, agencies may need to adjust policies to allow foster care workers to stay in touch with youth after they age out of care and receive support in doing so. Adjusting policies to allow foster care workers to stay in touch with youth after they age out may enable more supports to be provided to both workers and youth. As caseloads of youth in care grow and caseloads of youth who have left care grow, foster care workers may be left without the needed supports and services to support the range of youth with whom they are working.

Policy should also allow for youth and their supportive adults to have the freedom to communicate in a way that is most convenient for them. Most of the youth in this study reported

communicating in a variety of ways, including text messages and social media. However, these communication venues are often prohibited for formal supports connected to the foster care system, such as foster care workers and therapist. This may discourage a youth's ability or comfort level in reaching out to that supportive adult in a time of need.

Limitations of Study

Design. The findings from this study should not be taken without the limitations associated with the research design. The use of a cross sectional research design does not allow for causality to be examined. Therefore, it is unclear if social networks are influencing social support and social capital or if social capital is influencing social support and social networks. However, the current study does provide a snapshot of the social networks, social support, and social capital available to youth and could be used to inform a longitudinal study examining causality between the constructs.

Sampling/recruitment. While this study was designed to minimize possible limitations, there are some notable limitations to the methodology. First, the sample is not generalizable to the wider transition-aged foster youth population. They are bound to Virginia and recruited mostly from programs where they are embedded in a network. Most (N=42) youth reported being involved in a formal support program. Their involvement in these programs keep them connected, at some level, to the foster care system and the supports available to them. Due to the recruitment sources, most (89%) of the sample participants had a high school diploma/ GED or higher, matching the high school completion rate of their non-foster care peers (NCES, 2017). However, in the general population of transition-aged foster youth only about half graduate high school or obtain a GED by the age of 24 (Courtney, et al., 2010).

Data collection. There are some limitations regarding the social network methodology. Egocentric social networks rely on the ability of participants to accurately self-report. While the focus of the study is on the perceptions of youth and their networks, self-report data may not accurately capture their entire networks or their foster care backgrounds. Single name generators may prompt respondents to only provide a subset of their network and may miss important people (Marin & Hampton, 2007). However, the use of a name generator, position generator, and resource generator gained diverse views of networks and captured multiple aspects of social capital. Using EgoWeb 2.0 to collect the data created a limitation in that the interview link could not be posted to allow participants to take it anonymously. The link could have been emailed to a participant, but this would still require contact information. It is possible that certain participants did not feel comfortable identifying themselves and were excluded from the sample. The name generator asked about adults who have helped or tried to help in the past year. The focus for the current study was on supportive adults and may have missed peers. While some peers were named, the study did not explicitly ask, thus potentially limiting the understanding of overall support networks.

Data Analyses. Due to the sample size the data analyses are not as robust as it could have been. With a limited number of youth, the regression analyses had limited power, and may have influenced the findings.

Future Research

Based on the open-ended questions of the current study, there were several topics that were present in the data, but not included uniformly across all participants in the quantitative portion. In future studies, questions should be added regarding the receipt of public services, such as TANF or Medicaid. Access to social services and aid may differ based on a number of

social network characteristics. Information on incarceration and substance abuse would allow for a better understanding of young adult outcomes. Based on prior research, foster youth experience substance abuse and incarceration at much higher rates than their non-foster care involved peers (Courtney, et al., 2010). Therefore, it is important to understand how social capital may influence these differences. Negative adult outcomes should not be the sole focus of future studies; rather positive adult outcomes such as gainful employment and safe and stable relationships should be examined.

The current study could be used to inform future studies examining the relationship between social networks, social support, and social capital among transition-aged foster youth. More descriptive information is needed to understand the social networks of transition-aged foster youth across the country. Expanding studies to include a larger sample of youth would allow for more complex analyses and may produce more generalizable data. Including youth from all states would allow for a better understanding of possible state level indicators that may impact social networks, social support, and social capital, such as having an approved Title-IV E extended foster care policy. Youth who can stay in care past the age of 18 may have differing levels of social support and social capital than youth who reside in a state that does not have extended foster care. Future studies should also examine the impact of extended foster care on social networks. Social support available in a social network may influence one's decision to stay in care, but these networks may change over time. Future studies should examine the relationship between extended foster care and social networks.

Expanding the current study to include network member perspectives could allow for a better understanding of how the relationship is perceived by the supportive adult. These perspectives could be valuable in understanding needed supports for people who are involved in

a youth's life as they transition out of foster care. It could also allow for more information about each network member to be obtained, such as network members race, gender, SES, and length of relationship. These factors may contribute to how youth relate to supportive adults. The current study should be amended to encompass all support domains. Overall satisfaction was high across sample participants, however individual domain satisfaction was much lower. This difference potentially indicates a need to include different support domains or to modify the response options for the individual support domain satisfaction questions.

It may also be important to examine other forms of capital, such as human or political capital, and the possible relationship between social networks and social support. It may be that human capital influences social networks and those networks influence social capital. It is important to gain a better understanding of the direction of change and what factors are needed to increase social support and social capital as youth transition out of foster care.

Longitudinal studies of transition-aged youth between the ages of 16 and 25 that follow youth as they transition out of care are needed to better understand how social networks change (or stay the same) as youth leave the foster care system. In studies with such an expanded age range, youth under the age of 18 would still be in formal foster care system and often in placements such as foster homes and congregate care settings. This difference between younger youth and youth over 18 who are usually in an ILP, would allow for a better understanding of the relationship between the foster care system and social support and would make it possible to examine stability and changes in social networks as youth move through late adolescence and into adulthood.

A longitudinal study also would allow for examination of adult outcomes as they relate to social networks and social capital. Following youth over time would allow for different

milestones to be accounted for, such as graduating high school or moving into an independent home. Differing levels of social support and social capital may influence these adult outcomes. It is important to understand not only the amount and type of social support and capital available to youth, but also how that support and capital influences young adult outcomes.

Conclusion

The current study examined the social support, social networks, and social capital available to transition-aged foster youth. This study gained valuable insight into the composition of transition-aged foster youth social networks, demonstrating a presence of supportive adults in most lives, and reinforced the need for added support for youth aging out of foster care. The data suggest that while some youth reported high levels of satisfaction with their social support, others did not, and about half reported missing support in at least one domain type. These findings contribute to the existing literature by confirming past studies showing that youth have people to rely on for support and filled a gap in the existing literature by exploring these relationships in-depth. By gaining a better understanding of who youth rely on for support, and what types of support are available, researchers and practitioners may be able to develop more tailored services available to supportive adults and youth.

The current study explored the access to and mobilization of social capital available to youth by their network members. Differences in both access to and mobilization of social capital based on how they knew network members, indicates a need for more services to keep youth connected to formal supports once they leave care. These findings add to the existing literature on the importance of social capital for transition-aged foster youth. This research can be used to inform future studies examining the long-term relationship of social networks on adult outcomes

for transition-aged youth. Lastly, this research can be used to inform services and programs aimed at increasing support and social capital for youth as they the foster care system.

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Appendix A: Recruitment Email

Dear _____,

Thank you so much for agreeing to reach out to the young adults you work with. I appreciate your willingness to help with my research project and hope that the information gained through these interviews will go to help young people as they transition to adulthood in the future. If you have any additional questions please don't hesitate to contact me.

Thanks again!

-Rachel Rosenberg

Subject line: Get paid to participate in an interview!

Dear _____,

Thank you so much for taking the time to read this email. I am a doctoral student at Virginia Commonwealth University School of Social Work. For my dissertation I am looking at the social networks and social support of youth who are transitioning out of foster care or who have recently transitioned out of care (ages 18-25). Here's how you can help! I would like to talk to you about your experiences, people who have helped you, and additional supports you wish you'd had as you transitioned from adolescence to adulthood. I plan to use this information to develop and provide better services for youth in the future

Participating in the interview is voluntary. If you chose to participate, you will be provided with additional details at the start of the interview. The interview will last 45-60 minutes. I'm happy to meet you wherever it's convenient for you.

If you participate you will receive a \$25 VISA gift card at the end of the interview.

If you would like to learn more about the study please visit: XXXXX

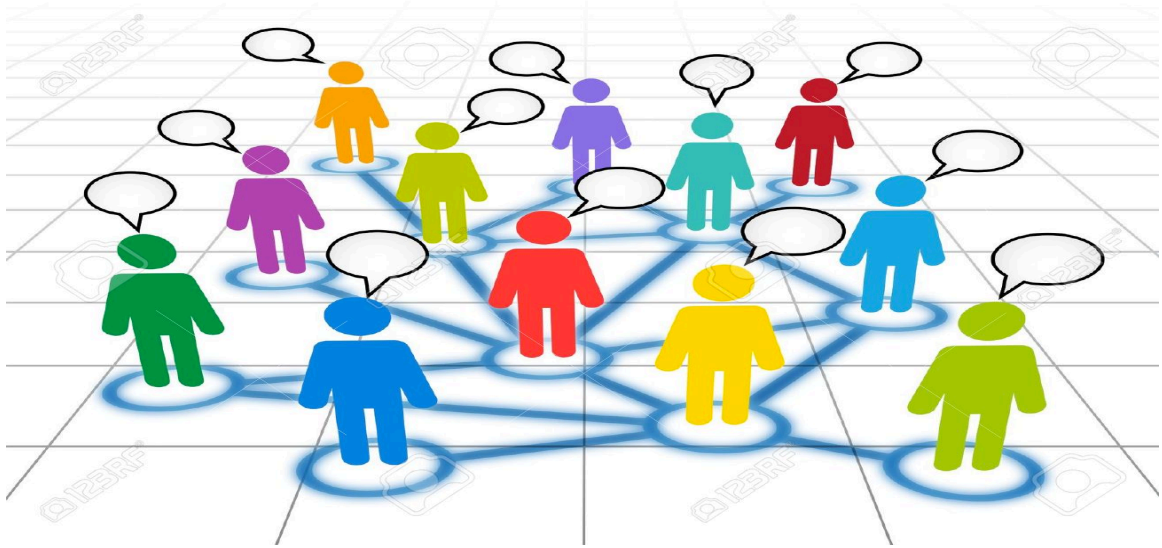
If you'd like to schedule a time to participate, you can call me (859-608-5778), email me (rosenbergrd@vcu.edu) or fill out this Google form: <https://docs.google.com/forms/d/113VsTw1nbsQF7I3NyDU0NRXgUuci97OIbg0NMhGkBG8/edit>

If you have additional questions or would like to contact me, please do so! You can reach me, Rachel Rosenberg, at rosenbergrd@vcu.edu (859) 608-5778 or my advisor, Betsy Farmer, PhD, at efarmer@vcu.edu or (804) 828-0410.

Thanks so much for taking the time to read this! If you have any questions, please get in touch. I look forward to hearing from you!

Thanks,
Rachel Rosenberg, MSW, PhD Candidate
VCU School of Social Work

Appendix B: Recruitment Flyer



Are you between the ages of 18-25?

Did you age out of Foster care in Virginia?

If you answered yes to the above questions, I have an opportunity for you. As part of a Virginia Commonwealth University (VCU) student's dissertation that aims to gain a better understanding of the social networks of youth aging out of foster care, you are wanted to participate in an interview. The interview is about the people you rely on for advice and support. At the completion of the survey you will get a \$25 gift card. The interview will take about 30-40 minutes and I will travel to meet you at a convenient location!
Receive a \$25 VISA Gift card!

To learn more about the study go to _____
Google form for requesting an interview:
<https://docs.google.com/forms/d/113VsTw1nbsQF7I3NyDU0NRXgUuci97OIbg0NMhGkBG8/edit>

Want additional information or have any questions contact Rachel Rosenberg at rosenbergrd@vcu.edu or (859) 608-5778 or my advisor Dr. Betsy Farmer at efarmer@vcu.edu or (804) 828-0410

Appendix C: Screening Questions

Interview Request Form

please complete to brief questionnaire and the best way to contact you. I will get in touch to schedule a time and place for the in person interview.

* **Required**

1. **Name ***

2. **Are you between the ages of 18 and 25? ***

Mark only one oval.

Yes No

3. **Do you currently live in Virginia? ***

Mark only one oval.

Yes No

4. **Were you in foster care in Virginia? ***

Mark only one oval.

Yes No

5. **Your Phone Number ***

6. **Your Email Address**

7. **My current/most recent social worker, works in
_____ city or county.**

<https://docs.google.com/forms/d/1Txz2BvK8KHDuKxEhsffvYj7Mg-6uG2VFhdtHatCa56k/edit>

Appendix D: Paper Survey Dissertation Survey

Today's date:

Participant ID:

Thank you for agreeing to be interviewed. Today we will be talking about how you're doing as you transition from adolescence to adulthood, supports you get or would like to get, and a bit about your background. Do you have any questions before we get started? To start out I would like to get some basic information about you.

1. How old are you?
2. What is your ethnic group/ race (Check all that apply)?
 - a. Hispanic or Latino
 - b. African American
 - c. White
 - d. Asian
 - e. Native American
 - f. Other (please specify)
3. What is your Gender identity: Male, Female, Other {if they say other, let them tell you how they identify and select from the list}: gender-queer, a-gender, bi-gender, gender fluid, {if not listed type the response in the text box} Prefer not to answer
4. Do you identify as transgender: Yes No
5. What is your sexual orientation?
 - a. Heterosexual or straight
 - b. Gay
 - c. Lesbian
 - d. Bisexual
 - e. Asexual
 - f. Other (please specify)
 - g. Prefer not to answer
6. What is your marital status?
 - a. Never been married
 - b. Married, living with spouse
 - c. Married, but separated from spouse
 - d. Divorced
 - e. Widowed
 - f. Other (please specify)
7. {Unless reported they are married in 6- ask this} Are you currently dating or in a relationship with someone?

IF YES: at any time in the past 6 months, have you lived with your spouse/ partner/ boyfriend/ girlfriend?

No Yes

IF YES: Would you say the following are Not true; Sometimes true; or very true/ often true (these categories will be printed out and provided to the participant)

- a. I get along well with my spouse or partner/ boyfriend/ girlfriend
- b. My spouse or partner and I have trouble sharing responsibility
- c. I feel satisfied with my spouse or partner
- d. My spouse or partner and I enjoy similar activities
- e. My spouse or partner and I disagree about living arrangements, such as where we live
- f. I have trouble with my spouse or partner's family
- g. I like my spouse or partner's friends
- h. My spouse or partner's behavior annoys me

8. Do you have any children?

No Yes Don't know

9. Thinking about your relationships and close friends, about how many close friends do you have? (do not include family members)

None 1 2-3 4 or more

- a. About how many times a month do you have contact with any of your close friends? (includes in-person contacts, phone, letters, email, text, etc.)
 - i. less than 1 1-2 3-4 5 or more
- b. How well do you get along with your close friends?
 - i. not as well as I'd like average above average far above average
- c. About how many times a month do any friends or family visit you?
 - i. less than 1 1-2 3-4 5 or more

10. At any time in the past year, have you been employed?

No Yes

- a. Are you currently employed? Yes No
- b. If Yes, where are you currently employed? _____
- c. What is your job (or what type of work do you do)? _____
- d. Are you currently working full-time or part-time? FT PT
- e. How long have you been working there? _____ months
- f. If they select yes, ask the following: with 0= Not true; 1= Sometimes true; 2= very true/ often true
 - i. Thinking about your work experiences over the past year, how much are each of these statements true for you: Would you say that they're Not True,

Sometimes True, or Very True/Often True (give respondent card with response choices)

1. I work well with others
2. I have trouble getting along with bosses
3. I do my work well
4. I have trouble finishing my work
5. I am satisfied with my work situation
6. I do things that may cause me to lose my job
7. I stay away from my job even when I'm not sick or not on vacation
8. My job is too stressful for me
9. I worry too much about work

11. In 10 years do you expect to be employed? Y N DK

a. What do you think you'll be doing by then?

12. At any time in the past year, have you attended school?

No Yes

a. If yes: where do you go to school?

b. Are you currently enrolled (Or were you enrolled in the most recent semester)

i. If yes, would you say the following are Not true; Sometimes true; or very true/ often true (give responded card with response options)

1. I get along well with other students
2. I achieve what I am capable of
3. I have trouble finishing assignments
4. I am satisfied with my educational situation
5. I do things that may cause me to fail
6. I do well in school

13. At any time in the past year were you homeless (sleeping in a car, in a shelter, or on the street)?

No Yes

a. if yes: how many nights were you homeless?

i. For any of those nights, did you stay in a shelter?

14. During the past year were you unstably housed (couch surfing, staying with friends/ relatives temporarily, staying with a partner, etc.)

No Yes

15. Do you have any serious illness, disability, or handicap?

No Yes- if yes, please describe

Thank you for providing that information. We are going to shift gears now and talk about your experiences in foster care.

16. How old were you the first time you were placed in foster care?

17. Did you remain in foster care continuously after that or did you go in and out of care?
18. Thinking about your total time spent in foster care in your lifetime, how many years did you spend in foster care?
19. During your time in care how many different placements were in?
20. Have you ever been in the following placement settings, and if so how long (MONTHS)?
 - a. Group home
 - b. Foster home
 - c. Residential facility
 - d. Psychiatric hospital
 - e. Independent living placement
21. Are you still in foster care?
 - a. if no, where was your last placement?
 - b. if no, when do you leave that placement?
22. Where are you currently living?
23. Name Generator: I'd like for you to think about people who have helped you or tried to help you in the past year. These can be anybody (friends, family, neighbors, teachers, social workers, other professionals, anyone who's helped you or tried to help you. We're going to start with just a list of names, so thinking about the past year, who are the people who have helped or tried to help you?
24. How do you know this person?
 - a. Friends
 - b. Biological Family/relative
 - c. Foster Family
 - d. Helping professional
 - e. Employer/coworker
 - f. Other _____ {If other let me tell you how they know them}

Please rotate the screen and let the participant finish clicking through this part. The following questions (15-19) will generate a table. The participant will see everyone they listed in their network and then have click boxes under each response option, multiple responses are allowed.

25. How do you communicate with this person? (Check all that apply)

Person	In Person	Text	Phone call	Social media	Other
Person A					
Person B					

1. How frequently do you interact with this person?

Person	Daily	Several times a week	Weekly	Monthly	Sporadically (less than monthly)	Other
Person A						
Person B						

2. In the past year when you've interacted with this person what type of help have they provided? (Check all that apply)

Person A	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Give Advice					
Listen to you/ provide emotional support					
Provide resources (money, transportation, services like pet sitting....)					
Give feedback on things or constructive criticism					

3. How close are you to this person?

Person	Not close	Close	Very close
Person A			
Person B			

4. In the past year, in what areas does this person help you (or tried to help you)?

Person	Not at all	A little of the time	Some of the time	Most of the time	All of time
Housing					
School					
Job					
Transportation					
Relationships					

Parenting					
Other					

5. On a Scale of 0 to 5 with 0 being not at all happy and 5 being extremely happy, how happy are you with the level of support in each area listed? (give response card to participant)

Housing	
School	
Job	
Transportation	
Relationships	
Parenting	
Other	

6. Who in the network knows whom?

Person XXXX knows:		
	Yes	No
Person A		
Person B		
Person C		
Person D		

The following questions are asked after the sociogram is generated and the participant has had time to review it.

7. Do you think that there are gaps in your network or types of people that you wish were in your network but aren't?
8. Are there areas of support that you need, but feel are missing from your network? (I will read each domain and have them say missing or not)
- Housing
 - School
 - Job
 - Relationships
 - Parenting
 - Other
9. Position Generator (for each network member): Does this person have a job? What type of job does this person have?
10. On a scale of 0-5 with 0 being not at all happy and 5 being completely happy, How happy are you with the overall level of help provided by your social network? (give response card to participant)

Thank you for your time today. Is there anything else you would like to share? Here is your \$25 gift card and my contact information in case you have any questions after you leave.