March 2021

Impact of Starting Right, Now on Unaccompanied Homeless Youth's Mental Health and School Engagement

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by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Educational and Psychological Studies
College of Education
University of South Florida

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Date of Approval:
March 26, 2021

Keywords: emotion regulation; school engagement; interventions for homeless youth; community-based interventions for homeless youth; thematic analysis

Dedication

This dissertation is dedicated to my late mother, Lorraine Randle, who although could not be with me physically through the completion of this project, served as my guardian angel along the way. Her strong work ethic, resiliency, intelligence, dedication, and unconditional love, laid the foundation for my ability to pursue higher education. I am eternally grateful for the sacrifices she made throughout her life, for the betterment of my sister and I. We could not have asked for a better mother and are proud to know that her spirit lives on through us. This one is for you Mom! I will love and miss you, forever and always.

Acknowledgment

I would like to begin by expressing my deepest appreciation to my dissertation committee, family, and friends for supporting me throughout this dissertation process. To Dr. Linda Raffaele Mendez, thank you for providing continuous academic and personal mentorship throughout your time at USF and thereafter. Your nurturing spirit, dedication to the field, and passion for helping vulnerable populations of youth has truly inspired me as a practitioner and researcher. To Dr. Jennifer Wolgemuth, thank you for being an unprecedented source of knowledge and thoughtful feedback throughout my development in qualitative and mixed method research. Your willingness to go the extra mile to support your students is evident and I am so grateful. To Dr. Shannon Suldo, I am beyond appreciative for your flexibility and for providing ongoing support and brilliant feedback. You have truly helped to foster my passion for youth mental health through your comprehensive and interactive courses, thank you. To Dr. Rick Weinberg, you are an inspirational teacher and I learned so many concepts that I still apply to practice today. I thank you for your support in this process.

To my family, I appreciate your understanding, support, and love from miles away as I journeyed through this project. To my fiancé, Aaron Henry, you supported, motivated, and believed in me when I needed it the most. I love you and I am forever grateful for you. To my grandmother (Jenny), grandfather (Gary Sr.), sister (Cathy), and father (Gary Jr.), thank you for repetitively asking me over the years, “do you have your doctorate yet?”. Your humor, unconditional love, and encouragement kept me pushing forward. I would not be where I am today without you all. Thank you everyone.

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Abstract

Comprehensive, holistic, and individualized interventions for homeless youth are recommended in order to meet the complexity of their needs, but few of such interventions exist. The current study adds to this sparse literature base by examining the effects of a multifaceted, community-based intervention for unaccompanied homeless youth called Starting Right, Now (SRN). SRN provides unaccompanied homeless youth with a broad range of home-, school-, and community-based services in order to meet their unique needs. Previous research has supported the effectiveness of the intervention on participants' well-being and quality of life. However, the current study was the first to quantitatively examine SRN's longitudinal impact on mental health (depression, anxiety, and stress), emotion regulation (expressive suppression and cognitive reappraisal), and school engagement (cognitive, behavioral, and emotional) during a 12-month period. This study was also the first to utilize mixed method analyses to explore why some participants leave SRN prematurely. Specifically, results indicated youth entering SRN may be experiencing elevated mental health symptoms; increased use of expressive suppression; average use of cognitive reappraisal; and average to decreased school engagement. Further, results from dependent sample *t*-tests of 19 participants revealed significant decreases in participants' depression and stress from Time 1 (baseline) to Time 2 (6 months later). Results from dependent sample *t*-tests of 10 of the 19 participants revealed a significant decrease in behavioral school engagement from Time 2 to Time 3 (12-months). There were no other significant changes in other variables between any other timepoints. There were also no significant differences in Time 1 scores of the variables between participants who persisted in SRN for at least one year and

those who dropped out. However, thematic analysis of an interview with an SRN staff member indicated that youth who leave early may have personal histories riddled with trauma, mental health issues, drug use, refusal to attend therapy, and familial dysfunction. Findings of the current study continue to support the implementation and expansion of SRN in order to reduce internalizing symptoms of psychopathology.

Chapter I

Introduction

On any given night in America, more than half a million people are homeless (U.S. Department of Housing and Urban Development; 2020). While the long-term trend of homelessness in the United States shows a 12% decrease, 2019 marked the third year in a row that the nation has experienced a slight increase (3%; National Alliance to End Homelessness, 2020). Of the more than 568,000 people experiencing homelessness, 19% were children under the age of 18 years old. According to the National Center for Homeless Education (2020), during the 2017-2018 school year, 1,508,265 students were identified as homeless in schools. Those statistics were collected before the onset of the Coronavirus Disease 2019 (COVID-19) pandemic. While the impact of COVID-19 on homelessness is still emerging, researchers have predicted that rates of homelessness will further increase and the homeless will be particularly vulnerable to COVID-19 (Culhane et al., 2020). While the majority of youth experience homelessness within a family, there are some who experience homelessness independently from a family, parent, or guardian. These youth are referred to as unaccompanied homeless youth (UHY).

The McKinney-Vento Homeless Assistance Act (2002) defines unaccompanied youth as a child or youth experiencing homelessness who is not in the physical custody of or living with a parent or guardian. While the McKinney-Vento Homeless Assistance Act (2002) does not include age restrictions for unaccompanied youth if they are eligible to enroll in public schools, the U.S. Department of Housing and Urban Development (HUD; 2020) defines unaccompanied

homeless youth as those under the age of 25. Homeless youth may be living in hotels, motels, trailer parks, campgrounds, cars, public places, and/or friends' homes. Homeless youth may also be awaiting foster care placement and/or living in emergency or transitional shelters (McKinney-Vento Homeless Assistance Act, 2002). Based on HUD's point-in-time data collection, on a single night in January 2019, there were 35,038 unaccompanied youth experiencing homelessness in the United States, which is just over six percent of the total population experiencing homelessness. Eighty nine percent of these unaccompanied youth were between the ages of 18 and 24. UHY were more likely to be experiencing unsheltered homelessness (50%) than all people experiencing homelessness (37%). Unsheltered homelessness refers to people whose primary living location is a place not designated for, or normally used as, a regular sleeping accommodation for people such as, parks, streets, or vehicles (U.S. Department of Housing and Urban Development, 2020). Based on federal data from the U.S. Department of Education, the number of UHY in schools increased by 16% from the 2015-2016 school year to the 2017-2018 school year. This increase aligns with national increases in the total population of students experiencing homelessness (National Center for Homeless Education, 2020).

Florida has remained one of the five states with the highest percentage of UHY (19%) since point-in-time data collection began in 2017. While the number of UHY has decreased by 23% since 2018 (U.S. Department of Housing and Urban Development, 2020), total figures may continue to be underestimations as youth often do not congregate in the same areas as homeless adults, and many do not access typical homeless assistance programs or government agencies. In order to collect the most accurate estimates, communities are continuing to improve point-in-time data collection methodology (National Alliance to End Homelessness, 2020).

Homeless Youths' Mental Health and School Engagement

Homeless youth face a myriad of mental health, physical, and educational risks compared to their housed peers. Even prior to the onset of homelessness, youth often face significant life challenges including child abuse in its varied forms, economic hardships, mental illness, substance abuse and addiction, family problems, and aging out of the foster care system (Edidin et al., 2012; Fowler et al., 2009; Hodgson et al., 2013; MacLean et al., 1999). Compared to youth with stable housing, youth experiencing homelessness often endure higher rates of trauma prior to and during homelessness that negatively impacts many of their mental health outcomes. Research has found that 83% of homeless youth reported experiencing a form of victimization (Stewart et al., 2004); 45% reported experiencing physical assault; 23% reported being robbed (Terrell, 1997); and 37% reported being sexually assaulted (Tyler et al., 2010). Factors such as experiencing child abuse and running away from home further increase homeless youths' likelihood of physical street victimization (Tyler et al., 2013). In turn, physical street victimization is associated with greater substance use (Tyler & Schmitz, 2020). It is estimated that 39% to 70% of homeless youth abuse drugs or alcohol (Baer et al., 2004). Although not all UHY run away from home, research shows the more often they run away, the more likely they are to experience depressive symptomology (Brown et al., 2015; Tyler & Schmitz, 2020) and anxiety (Tyler & Schmitz, 2020).

Traumatic experiences and the stress of instability of housing often result in mental health disorders such as Post-Traumatic Stress Disorder (PTSD), depression, and anxiety. The National Center on Family Homelessness (1999) reported that one of three homeless children by age eight have a diagnosable mental health disorder impeding daily activities. Other research indicates that almost 50% of homeless youth experience depression, anxiety or withdrawal

(National Center on Family Homelessness, 1999). In a study of 146 homeless youth, Bender, Ferguson, Thompson, Komlo, and Pollio (2010) found that 24% of homeless youth met DSM-IV criteria for PTSD, which was significantly higher than the 15% of housed adolescents with a history of trauma. However, studies on homeless adolescents have reported wide ranging rates of depression and anxiety due to the transient nature of the population and specific characteristics of the sample used in different research studies. For example, rates of depression among homeless youth in the literature have ranged from 21% (Cauce et al., 2000) to 41% (Busen & Engebretson, 2008), and rates of anxiety have ranged from 8% (Bender et al., 2010) to 47% (Whitbeck et al., 2004). Unaccompanied youth experiencing homelessness may be even more vulnerable to mental health issues as they have reported higher rates of self-injurious behaviors, suicidal ideation, suicide attempts, and depression than their housed or homeless-with-parents peers (Perlman et al., 2014).

While researchers have identified some protective factors associated with homeless youths' mental health, such as social support (Barman-Adhikari et al., 2016), research on other potential protective and risk factors continues to be understudied, particularly the area of coping styles and emotion regulation. Specifically, research on the emotion regulation strategies of expressive suppression (i.e., inhibiting expression of emotional behavior) and cognitive reappraisal (i.e., changing thoughts in order to change a situation's emotional impact) among homeless youth is sparse. Additionally, definitions of emotion regulation and coping often overlap as there is not consensus on the defining constructs of each. Generally, reappraisal strategies are associated with better psychosocial outcomes and suppression strategies are associated with more negative psychosocial outcomes (Gross & John, 2003; John & Gross, 2004). Using the Coping Scale (Kidd & Caroll, 2007), Brown and colleagues (2015) explored

the relationship between coping styles and depression among 201 homeless youth. Results indicated that most homeless youth endorsed using active coping (efforts to address or think about stressors differently or implement healthy activities), then social coping (seeking support from others to deal with the stressor), and lastly avoidant coping (strategies to escape thinking about or addressing the stressor, including anger and substance use). Notably, avoidant coping, similar to emotional suppression, was significantly associated with depression in that for each one-point increase in avoidant coping, homeless youth were twice as likely to meet criteria for Major Depressive Disorder. Conversely, researchers have found that better emotion regulation among homeless youth and young adults, as defined by emotional awareness and emotional control, is associated with reduced odds of suicidal ideation and attempts (Barr et al., 2017).

All the aforementioned risks experienced by homeless youth culminate to impact their educational performance. Based on the most recent federal data from the U.S. Department of Education, approximately 29% of students experiencing homelessness in schools met proficiency standards in reading/language arts, 24% achieved proficiency in mathematics, and 26% met proficiency in science (National Center for Homeless Education, 2020). Compared to low-income stably housed peers, formerly homeless students were more likely to have higher rates of grade retention, school mobility, poorer standardized academic achievement during residential disruption, worse school experiences, and fewer plans for post-secondary education (Rafferty et al., 2004). School engagement is also a key factor in school success; however, this area of research is limited among the homeless youth population. Most research has focused on educational outcomes rather than how youth engage in the school environment through behavioral (e.g. participation in school activities), emotional (e.g. emotions related to school), and cognitive engagement (e.g. investment or effort put forth in school). For students in general,

school engagement has been positively associated with achievement outcomes, such as test scores and on-time graduation (Finn & Rock, 1997). School disengagement has been associated with negative life outcomes, such as school dropout (Archambault et al. 2009) and substance abuse (Henry et al. 2012). Emerging research in this area has found that homeless children experience more problems in social engagement and task engagement in school, which is exacerbated by frequent school mobility (Fantuzzo et al., 2012). More research is still needed to understand the school engagement, mental health, and emotion regulation of homeless youth, especially within the subset population of unaccompanied homeless youth.

Interventions for Homeless Youth

Given that homeless youth face increased risk of psychological, health, educational, and economic difficulties, multifaceted and holistic interventions targeting multiple areas of concern are recommended (Ferguson, 2007; Ferguson & Xie, 2008). However, most interventions target silos of homeless youths' lives and either focus on individual mental health, housing acquisition, school-based resources, or community resources and assistance. Further, availability of services is often limited. As of early 2019, point-in-time data indicated that there were 23,710 beds in emergency shelters (i.e. temporary or nightly shelter beds), transitional housing (i.e. up to 24 months of shelter), and permanent housing (i.e. long-term housing) dedicated to unaccompanied homeless youth as compared to the 35,038 total unaccompanied youth. Approximately 65% of these available beds were for youth currently experiencing homelessness, with 38% of the beds in transitional housing and 27% in emergency shelters. Beds targeted for unaccompanied youth represented only 3% of the total beds available for people experiencing homelessness.

Most often homeless youth access more temporary community-based services that provide immediate food, clothing, shelter, or healthcare. Such services may be provided through

places like drop-in centers, run-away shelters, and school-based services (De Rosa et al., 1999). However, research on the effectiveness of such interventions is difficult to assess due to few published studies among this population. Additionally, the research that is published is typically focused on specific aspects of services provided (e.g., cognitive-behavioral approaches) and narrow outcome measures (e.g., substance abuse; Altena et al., 2010). One study that did assess short-term outcomes of youth who accessed runaway and shelter services found improvements in the number of days spent running away, perceived family relationships, school behavior, employment, self-esteem, and sexual behavior. However, days on the run, perceived family relationship, and self-esteem had relatively small effect sizes (ES= .28-.42; Thompson et al., 2002).

Within community and emergency centers, mental health care may be provided. Use of a strengths-based approach in drop-in and shelter services has been linked to decreases in homeless adolescents' depression and substance use over time (Slesnick et al., 2016). Cognitive behavioral therapies (CBT) also have shown promising impacts on the reduction of depression, substance use, internalizing behaviors, and increases in self-efficacy (Altena et al., 2010; Coren et al., 2016; Noh, 2018; Zu et al., 2014). Interventions that target providing permanent housing, such as "Housing First", have been shown to improve housing stability for homeless youth with mental illness but did not impact self-rated mental health (Kozloff et al., 2016). Unfortunately, however, homeless youth do not often access mental health services within community-based agencies due to barriers like high transience (Dixon et al., 2011). Further, studies have found that homeless youth perceive issues with the quality of living conditions (Altena et al., 2014) and healthcare services provided in shelters and community agencies (Darbyshire et al., 2006). Specifically, interviews of 10 homeless adolescents and young adults revealed concern regarding

being labeled, receiving only brief assessments, lack of explanations and personal control regarding care, and having little coordination between services. Conversely, participants also described positive aspects that enhanced participation in care and treatment, including having people who listened, made them feel like they mattered, and took a non-judgmental approach to care (Darbyshire et al., 2006).

Collectively, these results indicate that while temporary, emergency services may yield positive short-term outcomes, homeless youth may be hesitant to access such services. Further, research on most interventions for homeless youth only target isolated needs rather than the complex nature of their mental health, social, physical health, and educational needs. Therefore, there is a need for more multifaceted interventions that target the multiple barriers and risk factors encountered by unaccompanied homeless youth and offer a broad range of services (Ferguson & Xie, 2008).

Purpose of the Study

To date, few published studies have examined the impact of multifaceted, holistic interventions on unaccompanied homeless youths' mental health and school engagement. Mental health is increasingly defined through a dual factor model that supports an emphasis on understanding both psychopathology and well-being to best predict outcomes for youth (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Prior research on UHY participating in intervention has examined well-being (Esposito, 2018). The current study focused on psychopathology and aimed to add to the literature base regarding unaccompanied homeless youths' presenting mental health symptomology, emotion regulation, and school engagement. Additionally, this study sought to add to existing research on the impact of a multifaceted, community-based intervention for UHY called Starting Right, Now (SRN). Previous research on

SRN focused on the impact of the intervention on indicators of well-being, such as life satisfaction and hope (Esposito, 2018). The current study sought to provide insight into indicators of psychopathology (i.e. depression, anxiety, and stress) and examined potential longitudinal changes in depression, anxiety, stress, emotion regulation, and school engagement among unaccompanied homeless youth who participate for at least 6 months in SRN. Lastly, the purpose of this study was to explore potential differences that may exist between youth who persist in multifaceted interventions (i.e., SRN) and those who do not. Specifically, mental health symptomology, emotion regulation, and school engagement were compared between youth who persist in SRN and those who drop-out or are dismissed from the intervention. Archival interview data from an SRN staff member was analyzed in order to gain further insight into whether UHYs' mental health issues may be associated with no longer being in the intervention and explore potential implications for intervention modification within SRN.

Origins of Starting Right, Now. Starting Right, Now was developed in 2009 and aims to end homelessness for UHY and improve their life outcomes by providing multifaceted services that address the whole individual. SRN supports UHY through providing residential, educational, recreational, life skill, mentorship, and professional development services. SRN also connects youth with mental and physical health care services. Services are also individualized to meet the specific needs of the UHY.

To date, two studies have examined the impact of SRN on UHY. Randle (2016) found that while SRN participants experienced common struggles such as meeting the needs of their families and mental health issues, they also endorsed many benefits of the intervention like that of improved mental health and support systems. Esposito (2018) also found significant changes in indicators of positive mental health and well-being among SRN participants, specifically in

life satisfaction, hope agency, and hope pathways after six months of participation in SRN. However, the youths' adaptive and maladaptive coping skills showed no significant change over time. More research is needed in order to explore indicators of mental health symptomology among participants in SRN. Specifically, more formal evaluation is needed in order to provide further insight into the mental health symptomology, emotion regulation, and school engagement of UHY who remain in the intervention and those that do not.

Theory. The theoretical framework undergirding the intervention of focus (SRN) is resilience theory (Masten, 1989; Masten, 2007). Previous research has indicated that participants in SRN experience high levels of risk (e.g. sexual abuse, mental health issues, and housing instability; Raffaele Mendez et al., 2018), but may be positively impacted by services afforded through the intervention (Esposito, 2018; Randle, 2016). This may be explained by resilience theory, which posits that despite experiencing high levels of risk and adversity in life, there is potential to emerge with less damage than expected, especially with the addition of protective factors in an individual's life (Masten, 1989). If knowledgeable about factors contributing to resiliency, it is possible that resilience can be promoted by enhancing an individual's ability to respond effectively to various challenges (Masten, 2018). It is hypothesized that resiliency is developed through the array of services provided by SRN and the flexibility in tailoring services to the needs of the individual. It is the aim of the intervention to increase protective factors for UHY (i.e. mentorship and access to basic needs) and decrease risks and barriers (i.e. mental health issues and frequent mobility) that may impede reaching one's full potential and living a self-actualizing life. The purpose of this study is to continue to expound upon understanding of the risk factors (e.g. anxiety, depression, recent trauma) faced by UHY in SRN, in order to

increase retention and inform potential intervention modifications to address youths' risks and promote well-being.

Research questions. This study evaluated archival survey data of 57 youth participants who participated in SRN. Archival interview data from a staff member of SRN was examined in order to explore the potential impact of mental health on attrition, as well as implications for intervention modifications. Specifically, the research questions addressed in this study are:

1. At the time of entry into SRN, what percentage of youth are identified as having elevated levels (i.e., above the normal range) of depression, anxiety, and/or stress? Among those with elevated scores, what percentage fall into the mild, moderate, severe, or extremely severe ranges?
2. At the time of entry into SRN, what are the average levels of the emotion regulation strategies of expressive suppression and cognitive reappraisal among participants?
3. At the time of entry, what are the average levels of behavioral, cognitive, and emotional school engagement among participants?
4. Are there significant changes in participants' levels of depression, anxiety, and/or stress after a six-months and a year of participation in SRN?
5. Are there significant changes in participants' levels of the emotion regulation strategies of expressive suppression and cognitive reappraisal after six-months and a year of participation in SRN?
6. Are there significant changes in participants' levels of behavioral, cognitive, and emotional school engagement after six-months and a year of participation in SRN?

7. Are there significant differences in baseline levels of depression, stress, anxiety, emotion regulation, and school engagement among students who persist in SRN and those who drop out of the program before the year mark?
8. What does an interview with an SRN staff member reveal about why students leave or are dismissed from SRN?

Definition of Key Terms

Unaccompanied homeless youth. Unaccompanied homeless youth (UHY) are individuals under the age of 25 who are voluntarily or involuntarily separated from their family or are not in the physical custody of a parent, legal guardian, or institutional care. These youth are also homeless or lack a fixed, regular, and adequate nighttime residence (U.S. Department of Housing and Urban Development, 2020). This includes UHY who are sharing housing or doubled-up with others due to a loss in housing; living in campgrounds, motels, hotels, parks, emergency or transitional shelters, abandoned buildings or other places not designated for regular sleeping accommodations; and youth awaiting foster care due to not having alternative living accommodations (McKinney-Vento Homeless Assistance Act, 2002).

Mental health. Mental health is defined by a dual factor model that includes a spectrum of both negative (i.e. psychopathology) and positive (i.e. well-being) indicators of mental health to best predict youths' functioning. On one end of the spectrum of mental health is the presence of psychopathology with the absence of well-being, while on the other end is absence of psychopathology with the presence of well-being (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008; Suldo et al., 2016). Psychopathology is conceptualized as mental health symptoms and diagnoses (e.g. depression and anxiety) that are typically associated with negative outcomes. Well-being has multiple conceptualizations, such as high subjective well-being that reflects high

life satisfaction and more frequent positive than negative affect (Diener et al., 2009). Well-being has also been conceptualized as flourishing through the five essential elements of advancing positive emotions, engagement, relationships, meaning, and accomplishment (PERMA; Seligman, 2011; Kern et al., 2016). A high positive well-being is often associated with positive outcomes (see Suldo, 2016, for a review).

Depression. In this study, the construct of depression is based upon the tripartite model that posits that although negative affect is a common symptom between anxiety and depression, there are also specific distinguishable features. In the case of depression, the specific feature is low positive affect (Clark & Watson, 1991). Depression in this study was measured by the Depression, Anxiety, and Stress Scale- 21 items (DASS-21) that includes items typically associated with symptoms of anhedonia and dysphoric mood, such as sadness or worthlessness (S.H. Lovibond & P.F. Lovibond, 1995; P.F. Lovibond, 1998).

Anxiety. In this study, the construct of anxiety is based upon the tripartite model that posits although negative affect is a common symptom between anxiety and depression, there are also specific distinguishable features. In the case of anxiety, the specific feature is physiological hyperarousal (Clark & Watson, 1991). Anxiety is defined by panic attack or physical arousal symptoms that are characteristic of anxiety disorders (e.g. difficulty breathing or trembling). Anxiety is in this study was measured by the Depression, Anxiety, and Stress Scale- 21 items (DASS-21) that includes items typically associated with symptoms of physical arousal, panic attacks, and fear (S.H. Lovibond & P.F. Lovibond, 1995; P.F. Lovibond, 1998).

Stress. Stress is defined by non-situational arousal or tension- stress symptoms that are separate from the autonomic symptoms characteristic of anxiety disorders. Specifically, stress includes specific features similar to generalized anxiety (i.e. restlessness, irritability, and muscle

tension). Stress in this study was measured by the Depression, Anxiety, and Stress Scale- 21 items (DASS-21) that includes items measuring symptoms such as tension, irritability, difficulty relaxing, and a tendency to overreact to stressful events (S.H. Lovibond & P.F. Lovibond, 1995; P.F. Lovibond, 1998).

Emotion regulation. Generally, emotion regulation refers to processes (attentional, cognitive, social, and behavioral) aimed at changing and modulating emotions (Cole et al., 2004; Eisenberg et al., 2010; Gross & Thompson, 2007; Thompson, 1994). Gross (1998) adopted an input-output model of emotion that suggests emotions may be regulated by manipulating input (antecedent focused emotion regulation strategies) or output (response focused emotion regulation strategies) into the system. Emotion regulation in this study is defined by constructs measured in the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). Specifically, the ERQ measures the emotion regulation strategies of cognitive reappraisal and expressive suppression. Cognitive reappraisal is an antecedent-focused, cognitive strategy involving redefining an emotion provoking situation in order to change its emotional impact. Expressive suppression is a response-focused strategy involving inhibiting ongoing emotion expressive behavior when emotionally aroused (Gross & John, 2003; Gross, 1998; Gross & Levenson, 1993).

School engagement. School engagement is a multidimensional construct that includes behavioral, emotional, and cognitive aspects. Behavioral engagement includes participation in academic, social and/or extracurricular activities. Emotional engagement encompasses an individual's appeal to the school environment, including teachers, peers, academics, or school. Cognitive engagement is one's investment in school and willingness to exert effort in order to gain understanding and mastery of complex and/or difficult ideas and skills (Fredricks et al.,

2004). School engagement in this study is indicated by these three dimensions as measured by the School Engagement Scale (SES): behavioral, emotional, and cognitive school engagement (Fredricks et al., 2005).

Chapter II

Review of the Literature

Homeless youth face many risk factors, particularly youth who are unaccompanied or unattached from their families and/or guardians. Homeless youth encounter many obstacles from difficulty meeting basic needs (e.g. shelter, food, and clothing) to educational failure to mental health issues. This chapter aims to broaden the reader's scope of understanding of risk factors and interventions for homeless youth, particularly risk factors associated with mental health, emotion regulation, and school engagement. First, the present state of homeless youth in the United States will be reviewed. Secondly, homeless youths' pathways to homelessness will be addressed. Next, literature regarding mental health and school engagement risk factors will be explored. Lastly, this chapter will discuss existing interventions to help homeless youth, including the holistic, community-based intervention called Starting Right, Now (SRN), the intervention from which participants of this study were recruited.

The State of Youth Homelessness in the U.S.

In the United States, on a single night in January of 2019, approximately 568,000 people or 17 of every 10,000 people were experiencing homelessness. Based on the Department of Housing and Urban Development's (HUD), Annual Homeless Assessment Report to Congress (2020), the percentage of overall homelessness increased from 2018 to 2019 by three percent. This overall increase in homelessness reflects the slight increases in homelessness over the past three years in the West coast states, particularly California. For the fourth year in a row, there was an increase in the number of people over the age of 24 experiencing unsheltered

homelessness (i.e. residing in places not designated for regular sleeping accommodations), which also contributed to the overall increase in homelessness. The majority of people experiencing homelessness stayed in emergency shelters or transitional housing (63%), while 37% stayed in unsheltered locations (e.g., cars and parks). Approximately 61% of those that were homeless were men or boys, and fewer than one percent identified as transgender or gender non-conforming. Regarding race, 48% identified as White, 40% as African American, and 7% as multiracial. Twenty two percent of people experiencing homelessness were Hispanic or Latino. While the majority of people experiencing homelessness were adults in a household without children, 30% of people experienced homelessness as a part of a family. An average homeless family household consisted of three people, with children under the age of 18 comprising 60% the total people experiencing homelessness in families. Ninety percent of homeless families were sheltered.

In recent years, HUD has expanded research to include unaccompanied homeless youth (UHY). In fact, 2017 was used as the baseline year for collecting point-in-time data on unaccompanied youth in order to assess future trends in the number experiencing homelessness. HUD defines unaccompanied homeless youth as individuals under the age of 25 experiencing homelessness and unattached to a family household or not in the physical custody of a parent or guardian. On a single night in January of 2019, there were about 35,038 UHY representing slightly over six percent of the total homeless population. UHY were more likely to be unsheltered (50%) compared to all people experiencing homelessness (37%) and as likely to be unsheltered compared to those experiencing homelessness as an individual (50%). Further, the percentage of UHY under the age of 18 that experience unsheltered homelessness is about the same for UHY aged 18 to 24. Unlike the demographics of the overall population of individuals

experiencing homelessness, UHY were more likely to be female and less likely to be White. Thirty eight percent of UHY were women or girls, compared to 29% of all homeless individuals. Three percent of youth identified as transgender or did not identify as male, female or transgender, compared to the less than 1% of the individual homeless population. UHY were also less likely to identify as White (48%) compared to the overall homeless population. Almost a quarter (24%) of the UHY population identified as Hispanic or Latino, compared to 19% of all homeless individuals. UHY were also slightly more likely to identify as African American (36% vs. 34%) and multiracial (10% vs. 6%) compared to the individual homeless population. The 2019 Annual Homeless Assessment Report to Congress is the first report to include year-to-year trends for unaccompanied homeless youth. Although data may still be stabilizing as communities gain experience with reporting, results reflect a 9% decline in UHY from 2017 to 2019. Declines were likely driven by decreases in the number of unsheltered UHY over the past few years (U.S. Department of Housing and Urban Development, 2020)

Nearly half of all homelessness in the United States includes individuals living in three states: California (33%), New York (11%), and Florida (5%). In 2018, Pinellas County (i.e., St. Petersburg, Clearwater, Largo) had the fourth largest homeless individual population compared to other areas of similar size (U.S. Department of Housing and Urban Development, 2019). While over a ten year period, Florida has experienced some of the largest declines in overall homelessness (51%), Florida remains one of the five states with the highest number of UHY (1,450). In 2018, the highest rate of unsheltered UHY in a largely suburban city, county, and region was found in Pasco County, Florida; with more than 90% of UHY residing in locations not meant for human habitation. In 2018, Pasco County also had the third largest UHY population compared to similarly sized cities, counties, and regions (U.S. Department of Housing

and Urban Development, 2019). In 2019, Pasco County did not fall in the top five for highest rates of UHY or unsheltered UHY compared to similarly populated counties. In fact, Florida experienced the second highest decrease (23%) in total UHY from 2018-2019 (U.S. Department of Housing and Urban Development, 2020). Pasco County is located in the greater Tampa Bay region and neighbors Hillsborough County, the location for Starting Right, Now (SRN). Starting Right, Now is an intervention that seeks to take a holistic approach to addressing risk factors and difficulties faced by UHY. Although the state of Florida demonstrates a clear need for services for UHY given the high rates of youth homelessness, there is still little known regarding the effectiveness of long-term, holistic, wraparound services, like that of SRN. The current study explored the impact of SRN on UHY's mental health, emotion regulation, and school engagement. The next section will explore the different trajectories that lead to youth homelessness.

Pathways to Youth Homelessness

Within the research literature, unaccompanied youth have historically been defined as runaway and homeless youth. However, given that the majority of runaway and homeless youth are unaccompanied by their families, the term unaccompanied youth has recently been adopted to reflect trends that indicate significantly higher rates of unaccompanied youth than accompanied youth. For most homeless adults and families, insufficient income due to a shortage of jobs that pay a livable wage as well as a lack of affordable housing account for the majority of cases of homelessness (Miller, 2011b). However, unaccompanied youth often experience complex relationships between abuse, family conflict, trauma, drug use, street victimization, and psychopathology that leads to homelessness away from their parents and families (MacLean et al., 1999; Miller, 2011b; Martijn & Sharpe, 2006; Tyler & Schmitz, 2013).

A literature review conducted by Thompson, Bender, Windsor, Cook and Williams (2010) found the primary contributing factors to youth homelessness to be family conflict (e.g. lack of emotional cohesion and dysfunctional communication patterns), family transitions (e.g. transitions between foster care, home, and temporary housing), maltreatment (e.g. physical and sexual abuse), and victimization while on the streets. Specifically, MacLean, Embry, and Cauce (1999) studied 356 homeless adolescents recruited from a drop-in center. In order to determine paths to separation from family, researchers administered a life history interview, the Social Support Rating Scale–Revised (SSRS–R; Cauce et al., 1995), and a variety of different measures to determine psychological adjustment, such as the Youth Self Report Scale of the Achenbach scales (YSR; Achenbach, 1991), Satisfaction with Life Domains Scale (SLDS; Baker & Intagliata, 1982), and a modified version of the Problem Behavior Scale (PBS; Mason et al., 1995). Results indicated that adolescents' initial separation from family was a result of the adolescent initiating separation (35.4%), being forced out by parents (33.7%), and being removed by agencies and/or authorities (17.7%). While all three groups had higher rates of reported aversive environments than typical adolescent populations, youth removed from their home environments had the most reported problematic backgrounds with the highest rates of sexual abuse (55.7%) and maternal involvement with the law (25.4%). However, one of the most surprising findings was that there were no significant differences between the family separation path (e.g. adolescent initiation and being removed by agencies) and the adolescents' present relationship with their families (e.g. emotional support and maternal support), psychological symptomatology (e.g. internalizing, externalizing and cognitive problems), and recent rates of victimization. These authors suggested that this may indicate that the high-risk lifestyle with the

threat of victimization when living on the streets may have a larger impact on the mental health of homeless adolescents than the familial circumstances that initially led them to homelessness.

Such results were similar to findings by Martijn and Sharpe (2006) who sought to understand 35 Australian youths' (aged 14 to 25) transition to homelessness. Using a quasi-qualitative design, researchers conducted semi-structured interviews and administered the Composite International Diagnostic Interview (CIDI) and the Schedule for Affective Disorders and Schizophrenia for School-Age Children—Present and Lifetime Version, Version 10 (K-SADS) in order to generate ICD-10 (*International Classification of Diseases, Revision ten*) and DSM-IV (*Diagnostic and Statistical Manual of Mental Disorders, Fourth edition*) diagnoses. Corroborating findings of MacLean, Embry, and Cauce (1999), researchers found that since becoming homeless, youths' rates of psychological diagnoses and criminal activity increased, further supporting the idea that youth face many risks once on the streets away from their parents and families. Regarding transitions to homelessness, results of factor analysis identified five different pathways. The first pathway was (1) drugs and alcohol, trauma with or without additional psychological problems. This pathway included participants who all experienced trauma and drug and/or alcohol abuse, with half of participants in this pathway describing trauma prior to substance abuse. Some participants experienced mental health diagnoses prior to becoming homeless. The second pathway was (2) trauma and psychological problems (without drug and alcohol abuse). Participants in this pathway experienced trauma prior to mental health diagnoses (e.g. posttraumatic stress disorder and major depressive disorder). The third pathway was (3) drugs and alcohol abuse and family problems with substance abuse diagnoses and a history of family dysfunction. Participants described a neglectful childhood and noted being 'thrown out' of the home. The fourth pathway was (4) family problems. Participants in this

pathway described past neglect, witnessing domestic abuse, and/or abuse (i.e. physical and/or emotional). The last pathway was (5) trauma. Participants in this pathway experienced sexual abuse but had no mental health or substance abuse diagnoses. Although this study may not generalize to youth in the United States, it does add to the literature base indicating that unaccompanied youth often have multiple factors that contribute to homelessness.

Research from a qualitative study of 40 homeless young adults in the Midwest aged 19 to 21 also found histories riddled with substance use, witnessing violence, and child maltreatment. While the majority chose to leave their home in search of alternative living situations, some youth described being forced out of the home due to caregivers perceiving the youth's behavior as problematic (17.5%) and others were removed by state agencies (10%). Youth also described multiple transitions in and out of the home, with as many as 18 transitions for some (Tyler & Schmitz, 2013). Such findings further underscore that youth's experiences that lead to homelessness are often multifaceted but commonly the result of dysfunctional familial dynamics and trauma that lead youth to becoming unaccompanied.

In sum, findings of such studies show that the initial separation of youth from their families is the result of the youth choosing to leave, being forced out by family, or being forced to be removed by agencies. Further, most unaccompanied youths' pathways to homelessness are characterized by extensive familial conflict, abuse, substance abuse, trauma, mental health problems, and frequent mobility. Unfortunately, once these youth become homeless and unaccompanied, they often become street involved and continue to experience high levels of risk factors (e.g. criminal activity and victimization) that culminate to support an increased need for targeted, intensified interventions. The next section explores literature regarding a dual factor

model of mental health, as well as some common risk factors for homeless youth, including poor mental health and educational outcomes.

Mental Health, Emotion Regulation, and School Engagement among Homeless Youth

Understanding mental health through a dual factor model. In the current study, mental health was conceptualized through a dual factor model that incorporates both the traditional indicators of psychopathology (e.g. depression, anxiety, and stress), as well as indicators of well-being (e.g. happiness, life satisfaction, and positive relationships). Studies have shown that considering psychopathology and well-being best predicts youths' outcomes (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Research using a dual factor model of mental health has yielded four mental health profiles: (1) *Complete Mental Health*- youth with minimal symptoms of psychopathology and many indicators of well-being; (2) *Troubled*- youth with elevated psychopathology and minimal indicators of well-being; (3) *Symptomatic but Content*- youth with elevated psychopathology who also have positive appraisals of their lives (i.e. many indicators of well-being); and (4) *Vulnerable*- youth with few symptoms of psychopathology, but who also have few indicators of positive well-being. The Symptomatic but Content and Vulnerable profiles have often been overlooked when mental health was defined only by psychopathology. Therefore, youth who fall into these profiles may not always receive the early intervention that may be most helpful for them (Antaramian et al., 2010; Eklund et al., 2011; Greenspoon & Saklofske, 2001; Renshaw & Cohen, 2014; Suldo & Shaffer, 2008; Suldo et al., 2016).

Further, youths' outcomes have differed between the profiles, including those with similar levels of psychopathology but differing levels of well-being. For example, in a study of 500 high school students (mean age: 15.27 years) in the southeastern United States, researchers

examined students' mental health through a dual factor model and multiple student outcomes including: academic adjustment (i.e. academic self-perceptions, valuing of school, and attitudes toward school), social adjustment, identity development, and physical health. To assess mental health, researchers used the Students' Life Satisfaction Scale (SLSS; Huebner, 1991), the Positive and Negative Affect Scale for Children (PANAS-C; Laurent et al., 1999), the Self-Report of Personality form (SRP-A) of the Behavior Assessment System for Children, Second Edition (BASC-2), and Teacher Rating Scale (TRS-A) of the BASC-2 (Reynolds & Kamphaus, 2004). Analyses revealed that a dual factor model was supported with 62.2% of the sample in the Complete Mental Health group, 15% in the Troubled group, 11.4% in the Vulnerable group, and 11.4% in the Symptomatic but Content group. Using multilevel models that controlled for psychopathology and demographic variables, results revealed the additive value of subjective well-being in all four student outcome variables. To illustrate, researchers found a main effect of subjective well-being ($p <. 05$) for three out of five academic dependent variables, particularly attitudes toward learning. This reflected that academic adjustment differed as a function of students' level of subjective well-being, even when statistically controlling for the aforementioned variables. Further supporting the importance of well-being, results indicated that students with high subjective well-being (i.e. Complete Mental Health group) had better academic attitudes, perceived physical health, social support, satisfaction with romantic relationships, and identity development than students with low subjective well-being despite low psychopathology (i.e. Vulnerable group). Additionally, students who had increased psychopathology, but coupled with the presence of high subjective well-being (i.e. Symptomatic but Content group) reported better aforementioned outcomes, as well as less peer victimization, than students with low subjective well-being (Troubled group; Suldo et al., 2016). In all, results

of this study provide support for the importance of understanding both psychopathology and well-being when assessing high school students' mental health so that appropriate and targeted prevention and intervention can take place. However, it remains important to continue to examine students' emotional distress or psychopathology, as examining well-being alone, does not provide complete insight into their functioning. Examining psychopathology is particularly important among populations that are at increased risk for experiencing trauma, like that of UHY (Tyler & Schmitz, 2020; Wong et al., 2014).

This researcher could not identify any studies that explored the dual factor model for mental health among youth who are homeless. However, given the many known negative outcomes for this population, it is important to better understand both indicators of psychopathology and well-being. Previous research on the multi-faceted intervention for UHY that is the focus of this study (i.e. Starting Right, Now), explored the impact of the intervention on indicators of well-being, such as life satisfaction and hope (Esposito, 2018). Therefore, the current study focused on the impact of the intervention on some indicators of psychopathology, namely depression, anxiety, and stress. The impact of the intervention on emotion regulation skills and school engagement was also explored. The following sections will review the aspects of mental health that have been studied in relation to UHY's mental health (primarily forms of psychopathology), and review studies that investigated variables that may serve as potential risk or protective factors for homeless youth.

Depression. According to HUD's Annual Homeless Assessment Report to Congress (2017), approximately one in five people (20%) experiencing homelessness have a severe mental illness or a mental, behavioral or emotional disorder substantially limiting one or more major life activities. This rate is four times greater than the prevalence of serious mental illness (4.2%)

found in the general adult population and is comparable to the 18.3% prevalence rate of adults with any mental health illness. According to the National Survey on Drug Use and Health (NSDUH), 12.8% of adolescents aged 12 to 17 had a major depressive episode during the past year and 70.5% of adolescents who had a major depressive episode also had severe impairment (Substance Abuse and Mental Health Services Administration, 2017). Longitudinal studies have found that for 60-90% of adolescents, depressive episodes subside within a year (Dunn & Goodyear, 2006; March et al., 2004); however, 50-70% of adolescents experience additional depressive episodes within five years (Dunn & Goodyear, 2006; Lewinsohn, et. al., 2000). The prevalence of depression among female adolescents and adults is approximately double that of men (Substance Abuse and Mental Health Services Administration, 2017). Medical and psychological researchers have attributed this sex difference to a variety of different factors. Researchers have found hormonal changes at puberty likely make females more susceptible to stressful influences (Steiner et al., 2003). However, other research has posited the impact of factors such as negative body image (Nolen-Hoeksema & Girgus, 1994), experience with negative life events (Kendler et al., 2005; Silberg et al., 1999), affective factors (Cyranowski et al., 2000; Kendler et al., 1993), cognitive style or ruminative coping (Hankin & Abramson, 2001; Nolen-Hoeksema & Girgus, 1994), amplification of gender role expectations (Aub et al., 2000), as well as, the interaction among a variety of variables (Cyranowski et al., 2000; Hankin & Abramson, 2001; Nolen-Hoeksema & Girgus, 1994; Hyde et al., 2008).

Understanding the genesis of depression in adolescents is complex due to the diverse causes and interplay of risk factors that often culminate to result in depression. Studies assessing genetic risk and depression have found that children of depressive parents compared to healthy parents are three to four times more likely to have depression (Rice et al., 2002). Twin studies

have shown heritability rates of approximately 30 to 50% in late adolescence. However, the impact of heritability can intersect with other variables such as stressful life events, trauma, temperament, interpersonal dysfunction, and neurobiological dysregulation to impact depressive symptomatology (Garber, 2006). To date, research to identify specific genes that may increase risk for depression has not yielded significant, replicable findings (Shi et al., 2011; Shyn et al., 2011). Although some promising research has indicated that the presence of the 5-HTTLPR gene may interact with adverse life events to increase risk of depression (Caspi et al., 2003; Karg et al., 2011; Uher & McGuffin, 2010). Environmental factors associated with depression have been well studied. For adolescents and children, chronic stressors like maltreatment, family discord, bullying, poverty and physical illness are associated with depression. Stressful life events (e.g. personal injury and bereavement) are more likely associated with the first onset of depression rather than continued reoccurrence. Youth who experience multiple negative life stressors as opposed to only one are at an increased risk (Lewinsohn et al., 1999); as well as, youth that experience chronic, severe life stressors (e.g. bullying, negative family relationships, and maltreatment; Hawker & Boulton, 2000; Restifo & Bögels, 2009; Rueter et al., 1999). Unfortunately for homeless youth, their pathways are often troubled with multiple stressors and traumas.

Given the often tumultuous histories that youth experience on their pathways to becoming homeless, it is no wonder that homeless youth face a disproportionate amount of abuse, neglect, and trauma prior to homelessness, as well as victimization during homelessness (Bender et al., 2010). Research has long supported the negative impact of childhood victimization, maltreatment, and trauma on a variety of mental and physical health outcomes (Gilbert et al., 2009; Streeck-Fischer & van der Kolk, 2000). Physical and psychological abuse

have been shown to be leading risk factors for poor mental health outcomes, including depression and Post Traumatic Stress Disorder (PTSD; Chapman et al., 2004; Gibb & Abela, 2008; Nooner et al., 2012). Further, multiple studies have also shown that childhood sexual abuse, in particular, is strongly associated with depression and PTSD later in life (Rodriguez et al., 1998; Scott et al., 2007; Whiffen & MacIntosh, 2005). For homeless youth, research supports they are more likely to report high rates of psychiatric disorders, including mood disorders, substance use, depression, anxiety, PTSD, and psychosis (Cauce et al., 2000; Cochran et al., 2002; Yu et al., 2008). Additionally, homeless youth are about two times more likely to have a lifetime prevalence of mental illness as compared to housed peers (Kamieniecki, 2001; Slesnick & Prestopnik, 2005). Regarding depression, in a study of 523 older homeless adolescents, Rohde and colleagues (2001) found that homeless adolescents had significantly higher odds of major depressive disorder (5.51), dysthymia (13.08), and unipolar depression (7.35) compared to housed peers. In the total sample of 12 to 20 year olds, 12.2% had a DSM-IV diagnosis of major depression and 6.5% of dysthymia. However, Busen and Engebretson (2008) found in a records audit of 95 emancipated 15 to 25 year old homeless and street involved youth, 41% were diagnosed with major depressive disorder. Findings provide evidence of the disproportionate rates of depression among homeless youth.

In a study of 364 homeless adolescents in the Seattle Metropolitan area, aged from 13 to 20, researchers sought to better understand the psychosocial and mental health characteristics of homeless youth. Researchers conducted interviews and administered the Diagnostic Interview Schedule for Children-Revised, Youth Self-Report Form, Reynolds Adolescent Depression Scale, and Children's Manifest Anxiety Scale- Revised. Regarding family and childhood history, researchers found 55% of youth reported their mother had a substance abuse problem and 84%

reported she had a problem with the law. Results were similar for their father's. Most of the youth reported abuse, with 51% reporting physical abuse and 60% of girls reporting sexual abuse prior to homelessness. Twenty three percent of boys reported sexual abuse. Rates of street victimization in the past three months prior to interview were also high. Youth reported being burglarized (26%), robbed (13%), physically assaulted (37%), and spending time in an emergency room or hospital (31%). Girls reported higher rates of rape (15%) than boys (1%). Many youth reported substance use, such as drinking (35%) and using marijuana (27%) ten or more times in the past three months. Regarding mental health, two thirds of the youth met criteria for one or more psychiatric disorder based on the DSM-II-R. Mental health disorders in this study were combined into six different categories: Conduct Disorder/Oppositional Defiant Disorder (ODD), Attention Deficit Disorder (ADD), depressive disorders (i.e. Major Depressive Disorder and dysthymia), Mania/Hypomania, PTSD, and Schizophrenia. Conduct Disorders and ODD were the most common diagnoses (53%), with a higher prevalence rate for boys. For the remaining disorders, 32% met criteria for ADD, 21% for depressive disorders, 21% for Mania/Hypomania, 12% for PTSD, and 10% for Schizophrenia. Girls were significantly more likely to have depressive disorders (27%) and PTSD (17%). Additionally, 45% of the youth reported they had attempted suicide in the past. Results of the Youth Self-Report showed the majority of homeless youth fell in the At-Risk range for total problem, internalizing, and externalizing scores, with 17% scoring in the clinically significant range. Girls had higher scores on the internalizing scale of the Youth Self-Report, which is aligned with results of the other measures showing girls had significantly increased depression, anxiety, and low self-esteem. Younger adolescents presented with more externalizing problems than middle or late adolescents. Results of this study align with prior research indicating homeless youth often

experience troubling childhood backgrounds, street victimization, and mental health problems. Additionally, such results are aligned with previous research suggesting that gender differences may exist for different mental health problems and traumatic experiences, which could be important when designing interventions to help these youth (Cauce et al., 2000).

Wong, Clarke, and Marlotte (2014), sought to understand the impact of homeless youth's traumatic experiences that occurred prior to and during homelessness on depressive symptoms, PTSD, and self-injurious behaviors (i.e. purposefully cutting, burning, or injuring one's own body). Researchers surveyed 389 homeless youth aged 13 to 25 in a variety of agencies in the greater Los Angeles area using a series of measures, such as the Epidemiologic Studies Depression Scale (CES-D) and the Child PTSD Reaction Index (CPTS-RI). Results indicated that over 80% of the sample reported at least one trauma prior to homelessness and about 52% reported multiple trauma experiences. Specifically, results of multivariate analyses showed that the specific trauma experiences prior to homelessness of sexual abuse, emotional abuse/neglect, and adverse home environment predicted higher reported mental health symptoms. When accounting for demographic variables, and trauma before and during homelessness, sexual abuse, harassment, intimate partner violence, and physical assault were significant predictors for depressive symptoms. Adverse home life, emotional abuse/neglect, intimate partner violence, and physical assault were significant predictors for PTSD symptoms. For self-injurious behaviors, adverse home life, and intimate partner violence were significantly associated. Being African American was the only significant demographic variable that served as a protective effect for self-injurious behavior. Another major finding of this study was that exposure to multiple traumas or poly-victimization prior to homelessness did not increase prediction of mental health symptoms after accounting for specific trauma types. This indicates that specific

trauma types, such as sexual abuse and adverse home environment, accounted for the same variance. Lastly, researchers found that when accounting for traumas prior to and since becoming homeless, the effect between single versus multiple traumas with sexual abuse was significant for PTSD ($\beta = .22$, $p < .01$, marginally significant for depression ($\beta = .13$, $p = .06$), and not significant for self-injury. Additionally, multiple traumas with sexual abuse predicted PTSD ($\beta = .13$, $p < .05$) symptoms significantly more than multiple traumas without sexual abuse. This effect was not significant for depression. Both trauma before and during homelessness accounted for about the same variance in predicting depressive symptoms; however, trauma prior to homelessness explained nearly three times the variance for predicting PTSD symptoms. These results indicate that trauma occurring across any time may contribute to depressive symptoms, while specific traumas occurring prior to homelessness may be more important contributors to PTSD symptomology. Further, this study provides additional empirical evidence to support the interconnection of trauma experiences prior to and during homelessness on mental health symptoms, as well as reiterates the importance of service providers addressing such factors.

Anxiety. Anxiety disorders are the most common mental health problem among children and adolescents, affecting between 15% and 20% of youth (Kessler et al., 2012; Merikangas et al., 2010). Similar to depression, the prevalence of any anxiety disorder is higher for females than men (Carter et al., 2011; Merikangas et al., 2010), with some researchers indicating girls to have twice the likelihood of anxiety (Costello et. al., 2004). Anxiety disorders encompass diagnoses of specific phobias, social anxiety disorder, generalized anxiety disorder, obsessive compulsive disorder, panic disorder, and post-traumatic stress disorder. Results from the National Comorbidity Survey-Replication-Adolescent Supplement of 10,123 adolescents

indicated the following prevalence rates for the different types of anxiety disorders: specific phobia (19.3%), social phobia (9.1%), anxiety disorder (2.2%), post-traumatic stress disorder (5%), separation anxiety disorder (7.6%), and panic disorder (2.3%; Merikangas et al., 2010). Comorbidity of anxiety disorders in youth is high, particularly with depression, with comorbidity ranges from 1% to 20%. Although anxiety usually precedes depression in adolescents, comorbidity of both increases risk of suicidal ideation and attempts (Pawlak et al., 1999; Nelson et al., 2000). Comorbidity of anxiety disorders and Attention Deficit Hyperactivity Disorder (ADHD; 0% to 21%), as well as conduct disorder (CD) and oppositional defiant disorder (ODD; 3% to 13%) are also high (Costello et al., 2004). Overall, studies of community based populations have found comorbidity rates with anxiety disorders as high as 50% (Costello et al., 2004), and as high as 70% in clinical samples (Weems et al., 1998).

Similar to the etiology of depression, research has supported a variety of risk factors that increase likelihood for anxiety in adolescence. Some of the well-studied risk factors are temperamental characteristics, having parents who exhibit anxiety, and problems in peer relationships. Research has supported that young children who are highly inhibited when presented with novel situations may be more likely to be anxious in middle childhood and adolescence (Hirshfield-Becker et al., 2008; Hirshfield-Becker et al., 2007; Kagan et al., 1988). Research has also supported genetic and familial influences on adolescent anxiety (Lieb et al., 2000; Merikangas et al., 1999). In a longitudinal community study of 1047 adolescents, researchers found that adolescents who have parents with depression (e.g. odds ratio of 3.6 for social phobia) and an anxiety disorder (4.7 odds ratio for social phobia) were more likely to have anxiety. However, results also indicated that parenting style, particularly parental overprotection and rejection was also associated with adolescent anxiety. Parenting style has also been shown to

influence youth exposed to trauma (Smith et al., 2001; Spell et al., 2008). For example, Spell and colleagues (2008) found that for children displaced during Hurricane Katrina, maternal psychological stress moderated the effect of hurricane exposure on children's internalizing and externalizing symptoms. These results indicate that parental psychological health may serve as a risk factor or protective factor for youth exposed to traumatic events.

In adolescence, social concerns tend to become of more focus. For adolescents, particularly those still in school, peer victimization, especially relational aggression (i.e. malicious manipulation of a relationship) is also strongly related to social anxiety (Siegel et al., 2009). For adolescents in school, the intersection of cognitive and social factors may interact to result in anxiety. Youth with high anxiety may not be equipped to utilize problem-solving coping techniques (Mellings & Alden, 2000), and may rather utilize rumination and avoidance strategies instead (Garnefski et al., 2002). In turn, these youth may present as socially avoidant, task avoidant, perfectionistic, non-assertive, and/or over-reactive to criticism; further creating social difficulties. Cognitively, neurological impairment may cause difficulty with selective attention, making youth more vulnerable to anxiety. Selective attention is an essential skill for youth to be able to process all of the information around them and effectively problem solve. Alternatively, anxiety may impact youth's ability to engage in appropriate selective attention. Dalgleish and colleagues (2001) found that for children and adolescents diagnosed with PTSD, they were more likely than the control group to select attention toward threatening stimuli. In either circumstance, difficulty with cognitive controls, such as selective attention, can impact youth's social and academic competence and confidence in school settings, possibly exacerbating levels of anxiety. For internalizing disorders, like depression and anxiety, many factors and contexts

may contribute to an adolescent's psychopathology. Unfortunately for youth that are homeless, they often have a multitude of the known risk factors.

Due to homeless youth often experiencing traumatic experiences such as abuse, familial discord, and victimization before and/or during their homelessness research has primarily focused on PTSD symptomatology among this population. Additionally, obtaining accurate prevalence rates of mental health disorders in this population is often difficult due to frequent mobility of this population, as well as sample specific characteristics of certain populations used in research. Therefore, prevalence rates for homeless youths' mental health in literature is a wide range and continues to be understudied (Medlow et al., 2014). The prevalence of anxiety, including general anxiety, panic disorders, and PTSD, in studies of different populations ages 18 to 24 ranged from 8% to 34% (Bender et al., 2010; Bender et al., 2014; Medalia et al., 2014; Merscham et al., 2009) For example, Slesnick and Prestopnik (2005) found that 90% of substance using adolescents with multiple diagnoses had anxiety, while 32% had anxiety regardless of single or multiple diagnosis. Rates of PTSD also vary across studies. Slesnick & Prestopnik (2005) reported a rate of 5% in substance using homeless adolescents. Stewart and researchers (2004) found a 17.7% prevalence rate among physically and sexually abused homeless youth. Whitbeck, Chen, Hoyt, Tyler, and Johnson (2004) reported a 47.6% prevalence rate among homeless gay, lesbian, and bisexual homeless adolescents, representing the highest rate found.

Whitbeck, Johnson, Hoyt, and Cauce (2004) sought to better understand prevalence and comorbidity rates of conduct disorder, major depressive episode, PTSD, alcohol abuse, and drug abuse in 428 runaway and homeless adolescents aged 16 to 19. They also sought to investigate factors associated with one or more of the aforementioned disorders. Using diagnostic

interviews, researchers found that 89% of the adolescents met criteria for at least one of the targeted disorders, with 21.3% meeting criteria for one disorder and the majority (67.3%) meeting criteria for two or more disorders. When comparing results to that of same aged respondents from the National Comorbidity Study, homeless adolescents were six times more likely to meet criteria for lifetime comorbid mental disorders. Homeless adolescents were also twice as likely to meet criteria for a major depressive episode (30% vs. 14%), four times more likely to have conduct disorder (76% vs. 18%), seven times more likely to have PTSD (36% vs. 5%), approximately six times more likely to meet criteria for alcohol abuse (40% vs. 6%), and 14 times more likely to meet criteria for drug abuse (40% vs. 3%). Homeless females were almost twice as likely to meet criteria for PTSD. Logistic regression results were as follows for factors associated with the likelihood of homeless adolescents meeting criteria for at least two lifetime diagnoses, except for conduct disorder: (1) for every unit increase in deviant participation in the street economy increased comorbidity likelihood 1.4 times (2) for every unit increase of victimization while on the streets comorbidity likelihood increased two times (3) males were twice as likely to meet criteria for comorbidity and (4) for each year increase in age likelihood of comorbidity increases 1.4 times. Other contributing factors were sexual orientation, the number of runs, whether the adolescents actually spent time on the streets, and abuse from a caregiver. Although causality cannot be determined, the results do indicate significant levels of mental health disorders among homeless youth. Results also speak to a potentially important connection between victimization and abuse and mental health disorders, such as PTSD.

Bender, Ferguson, Thompson, Komlo and Pollio (2010) sought to determine factors associated with PTSD and trauma. Researchers interviewed 146 homeless youth, age 18 to 24, from Los Angeles, Denver, and St. Louis. Of these youth, 24% met criteria for PTSD, and 57%

of youth had experienced a traumatic event. Results of a multinomial logistic regression indicated that youth who met criteria for alcohol abuse or dependence and mania significantly predicted being in the trauma group. In fact, youth who abused alcohol were five times more likely to have PTSD and youth who experienced mania were six times more likely. Additionally, experiencing more transience significantly increased likelihood of PTSD. Such results indicate that the highly transient lifestyle of many homeless youth may place them at risk for increased environmental and personal challenges that increase the likelihood of exposure to trauma. Interestingly, homeless adolescents with higher levels of self-efficacy were significantly less likely to meet criteria for PTSD, which may reflect a potential protective factor in the development of PTSD.

Stewart and colleagues (2004) further examined specific symptomatology of PTSD and victimization among homeless adolescents. Most adolescents (82.7%) were exposed to at least one form of victimization (physical or sexual abuse). Results of chi-squared tests indicated that males were more likely to experience physical abuse, while females were more likely to experience sexual abuse. Of the homeless adolescents that experienced victimization, 17.7% met criteria for PTSD. Of note, a gender or ethnic difference in PTSD rates was not indicated for those youth who experienced victimization. However, females were more likely to experience certain symptoms of PTSD such as avoidance, emotional numbing, anger, and difficulty concentrating. These results further reiterate that victimization and PTSD are common experiences among homeless adolescents. Additionally, results of Confirmatory Factor Analysis showed that the symptoms of avoidance (i.e. active attempts to avoid reminders of traumatic events) and emotional numbing (i.e. feelings of detachment, estrangement, and difficulty accessing a range of emotions) provide significantly better models of fit separately than when

grouped together. This finding indicates that emotional numbing or suppression may be an important factor in PTSD. Literature supports that emotional numbing may be associated with more chronic PTSD symptomology (Feeny et al., 2000). Results of this study indicate that homeless adolescents may benefit from interventions that address multiple mental health symptoms and that teach adaptive ways to cope with life stressors and trauma.

Stress. Within literature, the term "stress" has been used in a variety of ways, often to denote the many variables of the stress process. In the current study, stress is defined as non-situational arousal or tension-stress symptoms such as irritability, tension, and difficulty relaxing (S.H Lovibond & P.F. Lovibond, 1995; P.F. Lovibond, 1998). This definition was developed based on Selye's (1974) conceptualization of stress in which the term stressor describes the agent that causes stress and the term stress describes the reaction to the stressor. Specifically, Selye posited stress to be physiological and emotional responses to stressors, similar to the conceptualization of stress in the current study. Most research on stress among homeless youth has utilized Lazarus and Folkman's (1984) model of stress and coping. In this model, stress is defined as a ''particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well- being'' (Lazarus & Folkman, 1984, p. 19). Coping includes strategies that are used to manage needs and emotions induced by perceived stress. Lazarus and Folkman posit that stress is influenced by multiple background factors, such as behavioral characteristics, personality, and family. These background factors influence one's cognitive appraisal of stressors and the behaviors employed to manage the stress. When the stressors are appraised as too overwhelming, then stress is often experienced, and adaptive and/or or maladaptive coping strategies are employed (Lazarus & Folkman, 1984).

However, to date, most research using the Lazarus and Folkman's (1984) model of stress among homeless youth has focused on stressors, coping strategies, and potential mediating factors (e.g., Chun & Springer, 2005; Dalton & Pakenham, 2012; Huang & Menke, 2001 Moskowitz et al., 2012). For example, Chun and Springer (2005) used a mixed-methods approach to explore stressors and coping strategies among 59 runaway adolescents in a shelter. Specifically, Chun and Springer used concept mapping to analyze qualitative data through quantitative techniques. Results revealed six clusters of stressors experienced by homeless adolescents related to disrespect (e.g. not feeling understood, being ordered to do something, being made fun of), living stability (e.g. lack of money, frequent moves, strict shelter rules), anxiety (e.g. being afraid of the future, worrying about daily life, having health problems), school (e.g. school life, being academically behind, homework), friends (e.g. not being with friends, fear of rejection), and family (e.g. siblings, fear of having a baby). Five clusters of coping strategies also emerged related to relaxation, social support, going out, hobbies/interests, and escaping. To help mitigate stressors experienced by homeless adolescents, researchers recommended an interdisciplinary approach that includes stress or anger management programs, family counseling, education, health care services, and permanent housing (Chun & Springer, 2005).

Unfortunately, homeless youth are likely to experience more stressors in various areas of their lives compared to stably housed youth. Homeless youth not only experience many acute stressors while living on the street, such as living instability and lack of money, but they also experience many stressful life events, such as a history of abuse (Bradley, 1997; Heusel, 1995; Kidd, 2012; Menke, 2000). Stress has been shown to negatively affect homeless youths' mental health. Homeless youth experiencing stress are at increased risk for elevated levels of anxiety,

depression, and suicidal ideation (Huang & Menke, 2001; Menke, 2000). Further, most homeless youth utilize unhealthy coping mechanisms to deal with stress like use of alcohol or drugs, attempting suicide, and suppression of emotions (Bender et al., 2010; Stewart et al., 2004). Moskowitz, Stein and Lightfoot (2012) found that maladaptive behaviors (i.e. delinquent behavior and drug use) and recent stress were significant predictors of self-harm, while recent stress significantly predicted suicide attempts among runaway and homeless youth. Unfortunately, research on stress among homeless youth is limited in that how stress is measured differs between studies, making comparisons difficult. Further, there is limited research on presenting levels of perceived stress among homeless youth. Although, given what is known about the numerous stressors faced by homeless youth, it is hypothesized that youth experience elevated levels of perceived stress.

Understanding mental health symptomatology, such as depression and anxiety, as well as stress among homeless youth continues to be an understudied field. While the majority of research supports that homeless youth are at an increased risk for mental health illness, prevalence rates vary greatly from study to study. Additionally, most research on mental health disorders and symptomatology among homeless youth focuses on depression and PTSD, and other externalizing disorders. Additionally, likely due to the difficulty of accessing this population, much of the literature utilizes homeless adolescents that may have already accessed support services such as drop-in centers and runaway shelters. This current study sought to add to the literature base on mental health, stress, and youth homelessness in a variety of ways. Methodologically, the current study was the only one of its kind to utilize the DASS-21 to longitudinally assess levels of depression, anxiety, and reactions to stress among homeless adolescents before and after entering a unique multifaceted, community-based program. This

study also sought to incorporate a unique qualitative perspective through seeking to better understand how mental health variables may impact those adolescents who do not stay in the program, from the perspective of a veteran staff member of SRN. Better understanding prevalence rates of mental health symptomatology and stress levels prior to and during intervention will hopefully not only help to inform program modification for SRN, but also for other interventions seeking to provide comprehensive services for this population.

Emotion regulation. Literature regarding emotion regulation strategies (e.g. cognitive reappraisal and emotional suppression) and homeless youth is sparse. Most research on homeless youth to date has focused on risk factors that many homeless youth often experience such as physical abuse, sexual abuse, emotional abuse, familial discord, substance abuse, victimization, trauma, and mental health diagnoses. More recent research on homeless youth has begun to assess links between risk factors and potential protective factors like that of coping styles, association with prosocial peer groups, and emotion regulation. However, investigation of emotion regulation strategies, both positive and negative, has not been studied longitudinally among a group of unaccompanied homeless adolescents entering a wraparound community-based program.

Emotion regulation has been defined as changes in the initial appraisal and action readiness response to situations that can be modulated by attentional, cognitive, social, and behavioral processes (Cole et al., 2004). This definition is based on the idea that an emotion is comprised of the integration of appraisal and action preparation. Appraisal is the scope in which a situation is evaluated based upon expected goals or expectations for well-being. Action preparation is the readiness to initiate a response that would allow one to regain well-being (Frijda, 1986; Lazarus, 1991). However, for most, readiness to react to regain expected goals or

expectations for well-being does not always dictate the actual behaviors displayed. Rather, for most, various behaviorally and psychologically competent coping strategies are employed that allow one to vary or modulate responses to stimulating situations in a socially acceptable way. Within literature there is a lack of consensus regarding the construct of coping versus emotion regulation strategies. However, a main distinguishing feature between coping and emotion regulation are the triggers of the processes. Generally, coping refers to the processes that occur in response to stressful situations (Compas et al., 2017). Coping encompasses not only responses to emotions, but also focuses on modulating cognitions, behaviors, physiological responses, and environmental stressors (Compas et al., 2001; Compas et al., 2017; Lazarus & Folkman, 1984). In contrast, emotion regulation processes are typically aimed at changing and modulating emotions, albeit stressful situations (e.g. death of a loved one) or normative life experiences (e.g. watching an emotion provoking movie; Eisenberg et al., 2010; Gross & Thompson, 2007; Thompson, 1994). As a result of a lack of definitive construct definitions, emotion regulation and coping strategies are often used interchangeably. Additionally, measures often vary in items and dimensions included when assessing coping and emotion regulation, making it difficult to compare and gather results from different studies (Compas et al., 2007).

Researchers are increasingly differentiating adaptive and maladaptive emotion regulation and coping strategies based upon associated positive (e.g. decreased psychopathology) or negative outcomes (e.g. victimization and mental health diagnoses). In a meta-analysis of 212 studies, Compas and colleagues (2017) found the following to be related to lower degrees of psychopathology among children and adolescents: the broad domain of emotion regulation, the broad domain of adaptive coping strategies, efforts to directly impact sources of stress and emotions (e.g. problem solving and emotional expression), and efforts to adapt to sources of

stress (e.g. acceptance and cognitive reappraisal). Conversely, higher levels of psychopathology were related to the broad domain of maladaptive coping, efforts to defer away from sources of stress and emotions (e.g. avoidance and denial), as well as specific strategies of emotional suppression, avoidance, and denial. Schäfer and colleagues (2017) also conducted a meta-analysis of 35 studies in order to better understand associations between emotion regulation strategies and symptoms of depression and anxiety in adolescence. Results were similar to Compas et al., 2017 in that strategies of cognitive reappraisal, problem solving, and acceptance (i.e. adaptive strategies) significantly decreased symptoms of depression and anxiety. Strategies of avoidance, suppression, and rumination (i.e. maladaptive strategies) were significantly associated with an increase in symptoms of anxiety and depression.

The current study utilized the Emotion Regulation Questionnaire **(**ERQ, Gross & John, 2003) among a group of unaccompanied, homeless adolescents. The ERQ specifically measures the emotion regulation strategies of cognitive reappraisal and expressive suppression. Cognitive reappraisal is an antecedent-focused, cognitive strategy involving redefining an emotion provoking situation in order to change its emotional impact. Cognitive reappraisal is considered an antecedent-focused strategy because reappraisers attempt to change an emerging emotion by altering evaluative thoughts that are driving the emotion. Reappraisers are more likely to negotiate stressful events through interpreting the events through a more optimistic viewpoint and actively try to change negative moods. Reappraisal is associated with a more positive affect, psychosocial well-being, and the ability to manage emotions during stressful situations (Gross & John, 2003; John & Gross, 2004). By adolescence, utilization of this strategy is common and use continues to increase over the life span (Gullone et al., 2010). Expressive suppression is a response focused strategy involving inhibiting ongoing emotion expressive behavior when

emotionally aroused. Once an emotion has been activated, suppressors generally minimize the experience and outward expression of emotions in various contexts. Emotional suppression is associated with detriments to psychosocial well-being, less positive affect, and more difficulty in enhancing mood. (Gross, 2001, 2002; Gross & John, 2003; John & Gross, 2004). The use of this strategy typically decreases with age (Gullone et al., 2010).

Similar to the development of depression and anxiety, emotion regulation and emotion dysregulation can be impacted by variables such as temperament, parenting, parent psychopathology, genetics, and maltreatment. The impact of temperamental characteristics can be seen as early as six months of age with infants who are highly active and have low attention control being more frustrated and utilizing fewer adaptive calming strategies (Calkins et al., 2002). However, children are greatly influenced by their parents and a child's temperament also influences the parent-child interaction quality. Research is still developing regarding specific parental strategies that foster emotion regulation. However, children who have secure attachments with parents (Brody & Flor, 1998; Kidwell et al., 2010; Riva Crugnola et al., 2011); mothers who display a range of emotions (Eisenberg et al., 2003); mothers with appropriate emotional reactions (Garner, 2006); and parents who utilize cognitive reframing strategies (Morris et al., 2011) are more likely to exhibit higher quality emotion regulation strategies. Children who have an insecure parental attachment (Brody & Flor, 1998; Crugnola et al., 2011; Kidwell et al., 2010) and mothers who reject and minimize their emotions (Tonyan, 2005) display more maladaptive emotion regulatory processes. Most research on emotion regulation and parental psychopathology revolves around maternal depression. Research has shown that as early as infancy, maternal depression is associated with children's emotion dysregulation. Maternal depression may negatively skew appropriate emotional interaction with the child

(Tronick & Cohn, 1989; Tronick & Reck, 2009) and with prolonged exposure children may display a negative affect towards the mother (NICHD Early Child Care Network, 2004; Cole, Barrett, & Zahn-Waxler, 1992), or even try to care for the mother (Radke-Yarrow et al., 2004), all of which inhibits a child's ability to display and learn appropriate emotion regulation.

Genetics may impact emotion regulation directly and indirectly. Particular genetics are associated with hormonal responses (Armbruster et al., 2009), emotional recovery (Larson, Taubitz & Robinson, 2010), attentional control (Holmboe et al., 2010), and communication (Cole, Armstrong, & Pemberton, 2010; Hardy-Brown & Plomin, 1985;), which all can impact cognitive processes and behaviors of emotion regulation. Indirectly, genetic vulnerabilities can interact with environmental situations to create emotion dysregulation. Often these interactions occur as a result of parental genetic characteristics (e.g. mental health diagnoses) influencing interactions with children; children's genetic characteristics influencing interactions with adults; and child-parent interactions increasing likelihood of expression of genetic vulnerabilities (Beauchaine & Hinshaw, 2013). For homeless youth who are already at an increased risk for mental health problems, it is important to better understand how environmental risk factors (e.g. parental detachment and mental health) may interact with mental health to potentially further increase their risk profiles.

Only a few studies have assessed emotion regulation in adolescents using the ERQ. Most research has assessed reappraisal and/or suppression strategies in order to better understand associations with mental health factors. For example, children with anxiety disorders report significantly less use of reappraisal compared to children without anxiety disorders (Carthy et al., 2010). Hsieh and Stright (2012) assessed 38 adolescents from age 13 to 15 using the ERQ, Self-Description Questionnaire II, and the Social Skills Improvement System to better understand the

relationship between cognitive reappraisal, suppression, self-concept and internalizing problems. Results of structural equation modeling indicated that there were no significantly direct paths between emotion regulation strategies and internalizing problems. Rather, higher use of emotional suppression significantly predicted lower self-concept and higher use of cognitive reappraisal significantly predicted higher self-concept. Results indicate that self-concept may mediate the relationship between emotion regulation and self-reported and teacher reported internalizing problems. However, the ERQ only assesses use of two emotion regulation processes. One study found that average to high use of multiple emotion regulation strategies (reappraisal, suppression, concealing, emotional engagement, and adjusting) and high scores on adjusting were associated with lower levels of depression, general anxiety, and social anxiety. Conversely, a limited repertoire of emotion regulation strategies (i.e. high use on one or two indicators) was associated with higher levels of internalizing problems. This indicates the importance of helping adolescents to utilize a broad range of emotion regulation strategies. As described in previous sections, unfortunately homeless youth often face unique stressors and experiences compared to their housed counterparts. For example, for housed peers, over a two-year time period, parental support has been shown to be a mediator between depressive symptoms and an increase in use of expressive suppression for girls (Larsen et al., 2012). For homeless youth, social support has also been shown to decrease risk of symptoms of depression and poor health (Unger et al., 1998). However, as an artifact of being a homeless youth, most do not have potential protective factors, such as parental support, to help foster their psychosocial well-being. Therefore, it is necessary to better understand how emotion regulation manifests among youth who are homeless in order to better serve that population.

There is extremely limited research on emotion regulation and no known published research utilizing the ERQ with homeless youth. Most related research on homeless youth specifically assesses relationships between coping styles and negative outcomes (e.g. victimization and depression). The one study of homeless youth that specifically utilizes the emotion regulation terminology, investigated protective effects of emotion regulation and suicidality. Emotion regulation was measured using the subscales of the Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004) assessing emotional awareness and control. Researchers found that trauma prior to and after homelessness and PTSD symptoms were significant risk factors for suicidal ideation, while PTSD symptoms were the only significant risk factor for a suicide attempt. This finding provides evidence for the importance of coping strategies in the context of trauma for homeless youth. Further, results indicated that emotional awareness and control were negatively associated with suicide ideation and attempts. Given emotion regulation is associated with a reduction in suicidality, further investigation is warranted into interventions that build such skills, particularly among homeless youth who have experienced trauma (Barr et al., 2017).

Much of the research regarding homeless youth and coping styles reflects risk profiles associated with coping styles. Generally, more adaptive coping strategies are associated with more positive psychosocial well-being, while maladaptive coping strategies are associated with decreased psychosocial well-being. Studies show that homeless adolescents who more frequently use avoidant coping styles (e.g. substance use, isolation, trying to avoid thinking about problems) are at a significantly increased risk for witnessing and experiencing victimization, as well as meeting criteria for depression (Bender et al., 2016; Brown et al., 2015). Further, disengagement coping (problem avoidance, emotional suppression, social withdrawal,

wishful thinking), similar to avoidant coping, increases risk for suicidality, depressive symptoms, internalizing problems, and externalizing problems (Votta & Manion, 2004). Homeless adolescents who utilize more social coping strategies (e.g. seeking assistance from peers, adults, and institutions) are at a significantly decreased risk of victimization (Bender et al., 2016). Further, problem-focused coping (e.g. creating a plan of action, increasing effort, and addressing barriers as they arise) among homeless youth decreases risk of alcohol use and poor health (Unger et al., 1998). In sum, the use of certain emotion regulation strategies can significantly impact youth's psychosocial outcomes. The current study added to the sparse literature base on homeless youths' use of emotion regulation strategies in order to better inform intervention.

School engagement. School engagement is a multidimensional construct that does not have a universal definition, which makes it difficult to engage in comparative analyses (Appleton et al., 2008; Fredericks et al., 2004). The more common dimensions of school engagement in literature have three components: behavioral, emotional, and cognitive engagement. Behavioral engagement encompasses the degree to which students participate in academic, social, and extracurricular activities. Emotional engagement encompasses students' affective emotions towards school or their appeal of the school environment, which is presumed to impact their connectedness to school and willingness to engage in work. Cognitive engagement refers to students' investment in school and willingness to and willingness to exert effort in order to gain understanding and mastery of complex and/or difficult ideas and skill (Fredricks et al., 2005).

School engagement is a vital factor in the completion and success of youth in school. School engagement has been shown to be associated with positive achievement outcomes such as higher grades, higher scores on achievement testing, on-time graduation (Finn & Rock, 1997), attending classes, homework completion (Finn & Voelkl, 1993). Further engagement in

extracurricular activities often fosters a sense of school belonging and has been shown to be linked to decreased drop-out rates and higher academic achievement (Brown & Evans 2002; Prelow & Loukas 2003; Mahoney & Cairns 1997). For youth who are not engaged in school, research has found increased association with negative life outcomes. School disengagement is associated with dropping out of school (Archambault et al. 2009), delinquency, substance abuse, and teen pregnancy (Henry et al., 2012; Manlove, 1998). Unfortunately, homeless youth are already at increased risk for these outcomes.

Currently, there is limited research on school engagement and homeless youth. Likely due to their frequent mobility, it is not well understood how these youth perceive and engage in the school environment. However, research has shown that adverse childhood experiences significantly increase likelihood of school dropout, educational attainment (Porche et al., 2011), grade repetition, poorer grades, and lower achievement test performance (Bethell et al., 2014; Eckenrode et al., 1995; Rowe & Eckenrode, 1999). Increased childhood adverse experiences are also significantly negatively associated with perceived importance of school and engagement in prosocial activities in adolescence. However, peer intimacy and companionship may also serve to be protective factors in that relationship (Moses & Villodas, 2017). Fantuzzo and colleagues (2012) sought to better understand associations between homelessness, school mobility, classroom engagement, and academic well-being indicators of third grade students. The Problems in Classroom Engagement scale was used to assess the dimensions of Task Engagement and Problems in Social Engagement. Multilevel linear regression was used to analyze archival data. Results indicated that compared to housed children and children without school mobility, homeless children experienced significantly more problems in social and task engagement. Further, children who were both homeless and experienced high school mobility

had the greatest problems in social and task engagement. When controlling for demographic variables known to be associated with educational well-being, the combined experiences of being homeless and frequent school mobility was related to the poorest academic achievement and classroom engagement. These findings indicate that instabilities associated with youth homelessness is associated with the poorest educational outcomes. Unfortunately, research also supports that youths' motivation and academic achievement in school starts to decrease around adolescence (Anderman & Maehr, 1994; Eccles et al., 1993), making it even more important to better understand levels of school engagement among homeless adolescents.

Most research on homelessness and education has centered around academic underachievement. Risk factors like that of mental illness, victimization, frequent mobility, and substance use often culminate to negatively affect youth's academic success. Only approximately half of homeless students enrolled in schools have met state proficiency levels in reading, math, and science (U.S. Department of Education, 2014). Further, due to frequent transience, 75% of homeless youth have been found to attend as many as three schools in a year (Dohrn, 1991), which further enhances their risk for academic failure (Heinlein & Shinn, 2000). In a longitudinal study using interviews and standardized measures of cognitive and achievement abilities, researchers sought to compare school experiences of homeless adolescents and low-income stably housed peers. Researchers found that while both groups of adolescents rated school as "very important" and were comparable in cognitive abilities, formerly homeless youth experienced more aversive educational outcomes. Formerly homeless youth had more school mobility, increased grade retentions, negative school experiences, and fewer plans for post-secondary education. During peaks of residential instability, homeless youth also had more declines in academic achievement. This effect was not indicated five years later, which may

indicate a mediating effect of stability in housing (Rafferty et al., 2004). Although academic underachievement is a persistent risk factor for homeless youth, it is not well understood how school engagement is experienced and how it may be impacted through intervention.

In sum, literature understanding the mental health, emotion regulation, and school engagement of homeless adolescents is sparse. However, it is important to understand how homeless adolescents are experiencing these variables in order to effectively intervene. Unfortunately, there is also a gap in research on the effectiveness of existing interventions for homeless youth, particularly interventions that take a wraparound approach. This study bridged these gaps by examining changes in mental health symptoms, emotion regulation, and school engagement prior to and during enrollment in a holistic, multifaceted intervention for homeless youth. More uniquely, this study sought to better understand how mental health factors may be associated with youth who are dismissed or drop out of the program, which may provide further insight into how to best assist homeless youth experiencing compound risk factors.

Common Interventions for Homeless Youth

Community-based agencies. Drop-in centers, emergency shelters, runaway shelters, and transitional housing can be categorized as community-based agencies. Drop-in centers often provide immediate services like food, shelter, clothing, healthcare, and sometimes case management (Joniak, 2005). Drop-in centers tend to be more unstructured in nature. Runaway shelters often provide emergency crisis and residential services to youth, including short-term housing, counseling, educational, vocational, referral, and family reunification services (Rohr & James, 1994; Thompson et al., 2000;). Emergency shelters provide short-term housing and transitional shelters may provide up to 24 months of housing (U.S. Department of Housing and Urban Development, 2020). Regarding the number of youth who access these community based

agencies, De Rosa and researchers (1999) estimated that approximately 78% access drop-in centers and 40% access runaway shelters. However, the effectiveness of these services is often difficult to study due to the transient nature of UHY.

The effectiveness of drop-in centers is still emerging. Slesnick et al. (2008) evaluated the impact of case management and therapy services offered through a drop-in center on 172 homeless youth aged 14 through 24. Youth were assessed at baseline, 6 months, and 12 months using semi-structured and self-report measures such as the Brief Symptom Inventory to assess psychological distress. Findings indicated that post twelve months, youth had significant improvements in psychological distress, substance use, and percent of days housed. Variance was explained by gender of the participant, number of days housed at baseline, and attending school. Specifically, youth who were housed more days during the research period experienced a greater decrease in substance use. While percentage of days housed increased, female participants percentage of days housed was greater. Overall psychological distress for participants decreased over time; however, participants who had a lower percentage of school days attended at baseline had a greater decrease of psychological distress (Slesnick et al., 2008). Although this last finding may be counterintuitive, researchers hypothesized that participants who did not attend school may have had fewer positive interpersonal connections; therefore, the positive interpersonal connections may be especially important for reducing psychological stress. However, study results also indicated that most youth did not find permanent housing and that their utilization of employment, educational and medical service did not change over the course of the study. While drop-in centers may provide services to assist in short term positive outcomes for homeless youth, interventions are still needed to provide a holistic approach to

targeting long-term housing, education, mental health, job attainment, and role models in order to hopefully affect more long-term positive outcomes.

Slesnick and colleagues (2015) examined treatment outcomes for homeless youth who use substances. Participants had a mean age of 18 and were randomly assigned to one of three treatment groups: Community Reinforcement Approach (CRA; 12 sessions of operant based therapy designed to alter the environment so that positive behaviors are reinforced); motivational enhancement therapy (adaption to motivational interviewing approach that seeks to help the client spearhead change within themselves with feedback); and strengths-based case management (case managers connect participants to community resources). Researchers found that all treatment groups showed equivalent reductions in substance use with females showing more significant decrease in substance use than males. Further those that experienced physical abuse showed fewer reductions in substance use than those that did not experience abuse. On measures such as the Beck Depression Inventory-II, Youth Self-Report of the Child Behavior Checklist (YSR), and the Coping Inventory for Stressful Situations, all treatment groups showed significantly decreased levels of depression and percentage of days homeless. Females exhibited more reductions in depressive symptoms and likelihood of victimization, as well as greater increases in emotion-oriented and avoidance-oriented coping skills. No treatment groups showed a significant change in task- or emotion-oriented coping skills, but those in the motivational enhancement therapy significantly improved in avoidance-oriented coping. Participants who received strengths-based case management services also displayed significant decreases in overall internalizing and externalizing symptoms. Those assigned to motivational enhancement therapy experienced significantly fewer reductions in internalizing symptoms, externalizing symptoms, and emotion-oriented coping skills than those assigned to case management. These

findings suggest that these various treatments could be efficacious for decreasing substance use among homeless youth. Further, case management services may lead to the most marked improvement in mental health outcomes among these interventions due to possibly decreasing levels of stress associated with being homeless. However, while all interventions in this study helped to improve some short term outcomes, at the 12-month follow-up, the average frequency of drug use still remained high with 40% to 50% using drugs in the past 90 days (Slesnick et al., 2015). This finding further supports the need for research around interventions for homeless youth that may support various facets of individuals and lead to more long-term positive outcomes.

Similarly to drop-in centers, only a few studies have assessed the outcomes of runaway shelters. Thompson, Pollio, Constantine, Reid and Nebbitt (2002) assessed the short term outcomes of 261 youth who accessed 11 different runaway and emergency shelters in Midwestern states. Using interviews and data collected from the Runaway and Homeless Youth Management Information System (RHY MIS), researchers found that youth improved in the number of days on the run, perceived family support, school behavior, employment, self-esteem, and sexual behavior. Effect sizes were relatively small for family support, days on the run, and self-esteem ranged from .28 to .42. Of note, participants who were housed at their homes before or after accessing a shelter were less likely to drop out of the study, which may potentially bias the ending sample. Lastly, recidivism for homeless youth who attend runaway shelters tends to be high. Baker, McKay, Lynn, Schlange and Auville (2003) found of their sample of 166 youth who accessed a runaway shelter, 34% of repeat runaways and 18% of first time runaways returned within a year.

The breadth of research on transitional housing and living programs for homeless youth is also sparse, as the majority of existing literature is qualitative in nature or focuses on specific subsets of UHY (e.g., LGBT homeless youth and youth aging out of foster care; Rashid, 2004; Skemer & Valentine, 2016). Additionally, due to the variation of implementation within and across transitional housing programs, generalizability is also often limited (Bartlett et al., 2004; Rodriguez & Eidelman, 2017). Many transitional housing programs for homeless youth provide additional supportive services, such as life skills training and case management. Pierce, Grady, and Holtzen (2018) sought to determine educational, employment, and wage outcomes of homeless adolescents and young adults who participated in a 24 month transitional housing program that provided services to improve housing, physical and mental health, life skills, income and employment, and educational outcomes. Based on administrative data collected, of the 174 youth in the study, 51% had diagnosed mood disorders (e.g. depression), 22% had anxiety disorders, and 32% had adjustment disorders (e.g., PTSD). Additionally, 67% had formerly lived in emergency shelters, 51% had previously lived on the streets, and 67% previously couch-hopped. Many of these youth also had histories of criminality, neglect, physical abuse, sexual abuse, and experiences with foster care. Regarding outcomes, researchers found that the majority of participants exiting the program increased their level of education or increased their monthly wages, as well as, were employed for at least 20 hours a week. However, results of chi-square analysis found that the largest predictor of progress toward educational and job outcomes, was length of stay in the program. This provides support that more longitudinal programs that provide multifaceted services may be helpful for homeless youth.

The child welfare system. The child welfare systems seeks to provide homes and services to youth who are not in the care of their parents and may be in the foster care system.

Out of 51 states, Florida had the third highest number of children in foster care on the last day of the 2015 fiscal year with 22,262 children. While the national median for adoption was 3.3%, Florida was the state with the second highest percentage of adoptions, with 15% of children being adopted in 2015. However, establishing housing permanency for children older than 12 years continues to be a national barrier. Nationally and in the state of Florida, about 66% of children older than 12 years of age exit foster care into permanent residency (i.e. reunification, adoption, or legal guardianship), compared to the national average of 89% of children under the age of 12 (Children's Bureau, 2015).

Barker and colleagues (2014) assessed 937 street involved youth who had exposure to the child welfare system in Canada. This cross-sectional study collected from the At-Risk Youth Study included youth who used drugs. Results of logistic regression analysis indicated that 49% of the sample reported being in the custody of the child welfare system at some point in childhood. Researchers also found that younger age at first "hard" substance use, high school incompletion, having a parent with substance abuse problems, and experiencing physical abuse were associated with being exposed to the child welfare system. Unfortunately, youth who are homeless and experience the child welfare system also continue to experience many risk factors.

School-based services. The McKinney Vento Homeless Assistance Act (The McKinney Vento Act) was the first federal legislation to address the needs of homeless children and youth in the school system. Originally authorized in 1987 and reauthorized in 2002, The McKinney Vento Homeless Assistance Act provided a definition for students considered homeless, as well as afforded students' rights and protections under the act. In summary, The McKinney Vento Act states that children that lack a fixed, regular and adequate nighttime residence are considered homeless (McKinney-Vento Homeless Assistance Act, 2002). Staple rights and protections given

to students considered homeless include the requirement of every school district to have a local homeless education liaison to collaborate with schools, students, families, service providers, and state agencies to ensure the needs of all homeless and unaccompanied youth in the district are met under the stipulations of the McKinney Vento Act. Additionally, school districts must immediately enroll homeless youth in their school of origin, the school they last attended when permanently housed, or the school within their current living area. Homeless youth have the right to remain enrolled until the end of the school year.

Once enrolled in a school, homeless students must have access to the educational and other school-related services that will allow them to meet standardized state academic achievement standards. Further, homeless youth and their guardians are required to be given information regarding fee waivers, free uniforms, and low-cost medical services. If requested by a guardian or local liaison, homeless youth must also be provided with transportation services to and from school, comparable to that of other students. Lastly, every state must develop appeal procedures for which homeless youth or guardians can dispute the enrollment, transportation, or fair treatment of a homeless youth. All disputes must be referred to the local liaison to be handled expeditiously according to law and local policy. Unaccompanied youth specifically must receive assistance from their local homeless education liaison related to school selection, transportation, legal rights, and appeal processes (U.S. Department of Education, 2004).

Mentoring programs. Mentoring programs also have been developed to provide homeless youth with an adult who provides ongoing guidance, assistance, encouragement, and instruction. However, mentoring programs are often difficult to study in that they are usually part of a larger intervention program for youth. While having a positive adult relationship has shown to be a protective factor for at-risk youth (Rhode, 2002), meta-analyses have found that effect

sizes for mentoring programs are small (Dubois et al., 2002; Eby et al., 2008). In literature, most research regarding mentorship examines the role of natural mentors (e.g. familial and non-familial mentors) in homeless youths' lives rather than systematic mentoring programs similar to SRN (Dang et al., 2014; Dang & Miller, 2013).

In one of the only known studies examining the utility of mentorship with homeless youth, Bartle-Haring and colleagues (2012) conducted a pilot study with 90 homeless adolescents between 14 and 20 years old. Participants were assigned to a treatment as usual in a drop-in center or a 12-week intervention with substance use/mental health intervention, the Community Reinforcement Approach (CRA), and 12 sessions with an adult mentor. Mentors received a one-day training and met with assigned participants to provide support and guidance in problem solving housing, finances, job attainment, remaining sober, banking, and developing new friendships. Outcome variables were assessed at baseline, 3-months, and 6-months post-baseline using an interview for demographic data and homeless experiences; the Form 90 for substance use severity; the Beck Depression Inventory-Second Edition for depressive symptoms; the Youth Self-Report for internalizing and externalizing problems; and the Problem Oriented Screening Instrument for Teenagers to address problem consequences of drug use. Results of hierarchical linear modeling showed only a few outcomes were associated with mentoring. Homeless adolescents who reported physical or sexual abuse were more likely to attend mentorship sessions than adolescents who did not report abuse. The combination of mentorship and treatment was associated with a decrease of substance use problem behaviors. While treatment with fewer attended mentorship sessions was associated with an increase in internalizing symptoms. Due to the small sample size, the outcomes that could be attributed to the youth themselves and those that could be attributed to the mentee/mentor relationship could

not be separated out. Such results further support the need for better understanding the impact of mentoring programs and their critical components with homeless youth.

Multifaceted Interventions for Homeless Youth

In addition to the services available to homeless youth through schools, shelters, the child welfare system, and other community agencies, there are a few multifaceted, community-based interventions that have been developed specifically for this population. Multifaceted programs are designed to address some of the barriers to service delivery and provide comprehensive supports across different domains of the child's life. While there are several emerging programs of this kind, few have been empirically studied.

Community Reinforcement Approach. The Community Reinforcement Approach (CRA) is a cognitive-behavioral intervention that takes an ecological approach to service delivery. Within 12 sessions, the intervention addresses mental health, employment, social support, medical care, legal services, and housing. Sessions include role plays; homework assignment; and a menu of procedure and module based strategies that allow the therapists to meet the needs of individuals. Slesnick, Prestopnik, Meyers, and Glassman (2007) studied the effect of CRA with 180 street living youth, aged 14 to 22 compared to youth who accessed treatment as usual at a drop-in center. Compared to the control group, youth in CRA had significantly decreased depressive symptoms [$F(1,153)=6.89$, $p<.05$] as measured by the Beck Depression Inventory- II and internalizing symptoms [$F(1,153)=5.73$,$p<.05$] as measured by the Youth Self Report. They also had a statistically significant decrease in drug use and increase in social stability compared to treatment as usual. Although the treatment and control groups both showed improvements in many outcomes, such as coping skills and externalizing problems, there was not a significant difference between the groups. It is also important to note, that participants

completed only an average of 6.8 CRA sessions. Therefore, more treatment compliance may have impacted the results. Nonetheless, these results support that CRA may be an effective multifaceted intervention for homeless youth.

Social Enterprise Intervention. The Social Enterprise intervention (SEI; Ferguson & Xie, 2008) is an emerging model for intervention for homeless youth that seeks to reduce mental health symptoms and high-risk behaviors and increase social support and utilization of services. Given that the majority of traditional interventions and services for homeless youth are more isolated in nature (Ferguson, 2010; Kipke et al., 1997; Morse et al., 1996), the SEI is a seven to twelve month living skills/vocational intervention that incorporates vocational (e.g. graphic design and Photoshop training) and business skill training, clinical mentorship, and access to clinical services. SEI incorporates a strengths-based model of youth development that focuses on internal assets and strengthening commitment to learning, positive values, and social competencies. Vocational and business skill components aim to teach youth marketable job skills and supports to transition them into a more formal labor market, rather than just low-paying jobs.

Ferguson and Xie (2008) pilot tested SEI with a sample of 16 homeless young adults (ages 18 to 24) as compared to 12 young adults in a control group who attended drop-in centers. In order to assess outcomes, researchers conducted structured interviews, as well as administered the Reynolds Depression Screening Inventory, Rosenberg Self Esteem Scale, and Satisfaction With Life Scale. There were no significant differences between the SEI and control groups at baseline. However, after ten months of participation in SEI, homeless youth in the SEI intervention displayed significant increases in overall life satisfaction (Cohen's effect size (ES)= .95); number of sexual partners (ES= 1.92); contact with family (ES= 1.16); peer social support (ES= .72); and a decrease in depressive symptoms (ES= -.59) compared to the control group.

Although this study has a small sample size, it is one of the few studies assessing a longer term intervention addressing multiple needs of homeless youth. However, the SEI does not address services related to long-term housing, health care, or post 12 month services.

Starting Right, Now. Starting Right, Now is a unique, multifaceted, community-based intervention for unaccompanied youth that takes a holistic approach to providing a continuum of care and services. SRN seeks to address the many needs and risk factors for unaccompanied youth through bridging home, school, and community based services, the lack of which often serves as a barrier to effective service provision (Miller, 2011a). SRN was founded by Tampa resident Vicki Sokolik in 2009 and is currently the only multifaceted, community-based intervention in Hillsborough and Pinellas Counties. Based on my research, it may be the only intervention of its kind in the nation. To date, over 150 homeless students have received services through SRN.

Students are referred to Starting Right, Now through school personnel, such as social workers and counselors. In order to qualify for the program, youth must be identified as homeless. Potential applicants must undergo three interviews. During the first interview, program administrators meet the applicant to determine if SRN will be able to meet the needs of the youth. Administrators consider factors like that of the youth's physical and mental health needs, motivation, ability for growth, and overall fit with the program's culture and operations. In the second interview, program administrators introduce students to a potential mentor. At the time of the second interview, students do not know whether or not they will be admitted to the program, nor do they know that they are meeting their potential mentor. If the program administrators determine that they are able to meet the needs of the student, including providing the student with a well-matched mentor, a third interview takes place. During the third interview,

new students learn about the benefits and requirements for remaining in the program. All students voluntarily enter the program, especially since many of them are considered unaccompanied youth and no longer living with their parents.

Once a student is accepted into the program, the youth is matched with a trained mentor; provided a furnished place to live; given access to mental and health care services; provided with a computer and Internet service; assisted with applying to college (including finding and applying for scholarships); connected with the public food assistance program; provided with a network of social support; and provided with individualized support services to help the youth reach his or her full potential (e.g. tutoring, organizational skills development, and additional accountability systems). For the first few years of the program, youth received individual apartments in which to live. However, the program now provides a communal house for multiple youth to live in with an adult guardian. Participants in SRN receive a mentor with whom they can build a close personal relationship. The director prefers for youth to have contact with their mentor at least once a week, with daily contact encouraged. Mentors are available to provide advice, accountability, guidance, and other support to youth as needed. Participants are also given the opportunity to participate in extracurricular activities and educational programs in which they may not have had the financial means to participate previously, like studying abroad and school sports. SRN students meet regularly to attend social events sponsored by SRN, such as holiday celebrations and sporting events. They also attend personal and professional development workshops, such as Dale Carnegie training, which focuses on the development of leadership skills and personal empowerment. Many also participate in Camp Anytown, a residential conference for teens focused on diversity training. Additional trainings provided target other areas of youths' development like emotional intelligence, communication skills,

managing finances, developing a resume, and resolving emotional and behavioral problems. More recently, SRN has also provided trainings focused on positive psychology, or strengths that enable people to thrive. To remain in the program, youth must attend school on a regular basis, maintain a job for 20 hours per week, contribute a portion of their earnings to their household, earn grades at or above a C, be involved in one extracurricular activity per year, and attend all mandatory SRN meetings and trainings. Youth are able to remain in the program indefinitely, as needed, if they continue to meet these requirements. It is expected that youth will remain in SRN for at least one year, and desirably through their college years to provide supports as needed. However, youth may be removed from the program if requirements are not met. SRN covers the cost of participation for these students in the program and provides them with a social support network consisting of SRN staff, volunteers, mentors and other students (Randle, 2016).

Currently, SRN is primarily funded through the advocacy of the director and the board of directors. Through their advocacy, they have been able to obtain funding through private donors, sponsors, and grants from individuals, businesses, and corporations. Continuing research on SRN could aid in program modifications, as well as help facilitate expansion (pending evidence of the intervention's promise). Research on the program might strengthen justification for continued sponsorship from donors and potentially aid in obtaining larger federal grants. To date, two completed studies have examined the impact of SRN on homeless adolescents in SRN.

First, Randle (2016) used thematic analysis of interviews with nine SRN participants to explore their perceptions of how SRN had impacted their lives. All participants indicated they experienced challenges such as meeting the needs of their families, mental health issues, and encounters with law enforcement. All participants also explained various ways in which they benefited from the program. Themes from the qualitative study indicated that participants

perceived that they had been lifted to higher educational and personal levels through obtainment of resources; adult and peer support systems; renewed trust in adults; increased hope; improved mental health; and a heightened sense of community (Randle, 2016). This study provided the first research into the potential positive impact of SRN on various mental health outcomes, including positive indicators of well-being such as life satisfaction.

In the second study, Esposito (2018) investigated the impact of SRN on indicators of well-being (vs. indicators of psychopathology) and coping strategies. Using the dataset examined in the current study, Esposito (2018) evaluated ten participants' life satisfaction, hope, and use of coping strategies across three time points: baseline, 6-months, and 12-months. Outcome variables were assessed using a demographics form, Adult Hope Scale, Brief COPE, and Students' Life Satisfaction Scale. Results of the Wilcoxon Signed-Rank Test indicated a statistically significant increase in life satisfaction (r = .80), hope agency (i.e. individual's determination regarding goals; r = .93), and hope pathways (i.e. individual's appraisal of their ability to overcome barriers and reach goals; r = 1.0) after six months in the program. There was no significant change in these variables from baseline assessment to 12 months, suggesting improvements in positive indicators of mental health that were observed at six months had returned to baseline at the one year mark. Adaptive and maladaptive coping did not significantly change across any timepoints. However, male participants in the study all experienced an increase in the use of adaptive coping strategies. Improvements in life satisfaction and hope factors after six months may be attributed to the various physical, emotional, and academic supports offered by SRN upon immediately entering the program (Esposito, 2018). A lack of change in coping skills is consistent with some previous research on interventions for homeless youth possibly reflecting the difficulty of impacting coping skills with this at-risk population

(Slesnick et al., 2007). A limitation to this study includes the potential that participants did not accurately report maladaptive coping skills due to certain strategies being prohibited by SRN, such as substance use (Esposito, 2018). Additionally, this study primarily focused on changes in indicators of well-being (i.e. life satisfaction and hope) among unaccompanied youth in SRN and due to the small sample size, average baseline levels may not be generalizable to other participants in SRN. Understanding the baseline levels of indicators of well-being, as well as indicators of psychopathology could aid in creating a more targeted intervention to address the mental health needs of the youth participating in SRN.

The current study sought to add to previous research regarding the impact of SRN on mental health symptomology and risk factors, as well as better understand factors that may be associated with homeless adolescents who leave the program. Based on results from Esposito (2018), it is possible that participants' well-being was enhanced because SRN helps students meet their basic needs through providing stable housing, food, and access to social support. SRN also allows students to engage in extracurricular activities they may not have been able to participate in outside of SRN. It was hypothesized that UHY in the current study would experience decreases in anxiety, depression, stress, and emotional suppression (a negative emotion regulation strategy) after entering SRN. In turn, it was also hypothesized that UHY will increase use of cognitive reappraisal (a positive emotion regulation strategy) and school engagement. These changes are hypothesized due to SRN providing students with mental health therapy as needed; access to basic needs that may decrease mental health symptomology; trainings to promote use of prosocial interpersonal and coping skills; access to a mentor to help navigate academic, social, and personal barriers; and housing stability to allow for consistent school attendance. Results from the present study were anticipated to have implications for

program modification, by providing insight into possible ways to increase retention, as well as support the need for enhanced mental health intervention for students entering SRN. Results from the present study were also anticipated to expand research on the effectiveness of multifaceted intervention models for homeless youth.

Chapter III

Method

Purpose

The purpose of this mixed methods study was to explore whether a holistic, community-based program, called Starting, Right Now (SRN), impacted the mental health symptomology, emotion regulation, and school engagement of unaccompanied minors participating in the program. Specifically, the research questions of this study were:

1. At the time of entry into SRN, what percentage of youth are identified as having elevated levels (i.e., above the normal range) of depression, anxiety, and/or stress? Among those with elevated scores, what percentage fall into the mild, moderate, severe, or extremely severe ranges?
2. At the time of entry into SRN, what are the average levels of the emotion regulation strategies of expressive suppression and cognitive reappraisal among participants?
3. At the time of entry, what are the average levels of behavioral, cognitive, and emotional school engagement among participants?
4. Are there significant changes in participants' levels of depression, anxiety, and/or stress after a six-months and a year of participation in SRN?
5. Are there significant changes in participants' levels of the emotion regulation strategies of expressive suppression and cognitive reappraisal after six-months and a year of participation in SRN?

6. Are there significant changes in participants' levels of behavioral, cognitive, and emotional school engagement after six-months and a year of participation in SRN?
7. Are there significant differences in baseline levels of depression, stress, anxiety, emotion regulation, and school engagement among students who persist in SRN and those who drop out of the program before the year mark?
8. What does an interview with an SRN staff member reveal about why students leave or are dismissed from SRN?

In order to address the research questions, archival longitudinal survey data collected by a University of South Florida School Psychology research group, Vulnerable and At-Risk Students: Improving Trajectories for Youth (VARSITY), led by Dr. Linda Raffaele Mendez, was analyzed. Data utilized in this study were collected as a part of a larger research study to assess the impact of SRN on participants' psychopathology, well-being, and school engagement. The USF Institutional Review Board (IRB) approved this survey data to be collected prior to data collection (Pro00023832; Appendix D) and approved analysis of this archival data for the current study (STUDY001502; Appendix D). Survey data were collected as a part of the larger study from December 2015 through October 2019.

Research Design

The current study used a mixed methods, exploratory sequential design to answer the research questions. An exploratory sequential design is best suited for studies that collect qualitative data to help explain or build upon initial quantitative results. This design includes two phases. In the first phase, quantitative data collection and analysis occurred. In the second phase, qualitative data were collected and analyzed. The rationale for this approach is to present the quantitative data in a more detailed manner and explore quantitative results that could not be

solely understood through quantitative analysis alone. Therefore, inherent to the design, there is more emphasis placed on the quantitative data collection and analysis (Creswell, 2012). In the current study, preliminary analyses of survey data indicated that there were many participants who did not stay in SRN for more than a year. Subsequently, an interview with a staff member of SRN was conducted to better understand if mental health issues may have been a factor in whether those participants were no longer in the intervention. The interview also explored potential implications for program modifications.

The research paradigm undergirding this study, and common to many mixed methods studies, is pragmatism. Pragmatism is based on the concept that researchers should use methodological approaches that best answer the research questions or problem being investigated. Within this paradigm, there can be single or multiple realities that may be explored through empirical inquiry (Creswell & Plano Clark, 2011). In this study, the multiple realities included the data from the self-report surveys of UHY and perspective of an SRN staff member. However, a main underpinning of pragmatism is that reality and knowledge in the world are based on beliefs and behaviors that are socially constructed. Therefore, knowledge cannot be definitive as it cannot be completely separated from beliefs, habits, and experiences. Rather, reality remains true as long as "it works" or proves itself good to an individual and/or has stood scrutiny overtime. Given there may be more than one version of reality, pragmatist researchers select the reality that best aligns with desired outcomes, goals, and/or needs (Morgan, 2014; Tashakkori & Teddlie, 2008). Pragmatism as a research paradigm is oriented toward solving real world problems, such as the lack of research on multifaceted interventions for UHY (Creswell & Plano Clark, 2011). It emphasizes developing "shared meanings and joint action" (Morgan,

2007; p. 67), which reflects the underlying belief that qualitative and quantitative research may be combined to complement the benefits and disadvantages presented within each.

Participants

The current study included 57 youth participants who completed surveys assessing their depression, anxiety, stress, emotion suppression, cognitive reappraisal, and school engagement on at least one occasion (baseline/pre-intervention). The current study also included an interview transcript from an SRN staff member discussing the impact of mental health issues for participants dismissed from the program. Of the 57 total participants, 71.9% identified as female and 28.1% as male, with a mean age of 17.25 years. All participants were in high school (grades 9 to 12) at the time of entry into the program, with the majority of the total participants being in 12^{th} grade (54.4%) or 11^{th} grade (26.3%). Regarding ethnicity, participants identified as follows: 43.9% Black or African American, 21.1% multiracial, 10.5% Hispanic or Latino, 8.8% White, 1.8% American Indian/Alaska Native, and 14.0% an 'other' ethnic identity. See Table 2 for further demographic details. Time 1 survey data were collected prior to participants entering the SRN intervention. Time 2 survey data were collected six months after Time 1 collection. Time 3 survey data were collected 12 months after Time 1 collection.

Three data sets (Sample A, B, and C) were analyzed in this study. See Table 1 for a visual description of timepoints analyzed in all samples. Sample A included 19 participants who completed surveys at Time 1 and Time 2. Sample A was 63.2% female with a mean age of 17.33 years. When entering SRN, 89.5% of participants were in 11^{th} or 12^{th} grades. Regarding ethnicity, 42.1% identified as Black or African American, 21.1% as White, 15.8% as Hispanic or Latino, 15.8% as multiracial, and 5.2% other. Sample B included 10 participants who completed surveys at Time 1, Time 2, and Time 3. Sample B participants were also included in Sample A.

Sample B participants were 70.0% female, with a mean age of 17.7 years. Ninety percent were in 12th grade and 40.0% identified as Black or African American, 30.0% as Hispanic or Latino, and 20.0% as White. Sample C included Time 1 survey data from 20 participants no longer in the program before the one year mark, as well as Time 1 survey data from 32 participants enrolled in the program past the one year mark. For five of the 57 total participants, it was unknown when they left the intervention. Therefore, there are a total of 52 participants included in Sample C. Some participants in Sample C were also included in Samples A and B. See Table 2 for further demographic details of Samples A, B, and C.

Table 1

Description of Samples Included In Analysis

	Timepoints Analyzed			
Samples	Time 1	Time 1 to 2	Time 2 to 3	Time 1 to 3
Sample A	-	X	-	
Sample B	-		X	X
Sample C				
0-11 months in SRN	X	-	-	-
12 or more months in SRN	X	-	-	-

Note: X indicates timepoints included in analysis

Table 2

Demographic Features of Samples

Demographics Variable	Total Sample ($N = 57$) %	Sample A ($N = 19$) %	Sample B ($N = 10$) %	Sample C: 0-11 months in SRN (n=20) %	Sample C: 12 or more months in SRN (n=32) %
Gender					
Male	28.1	36.8	30.0	30.0	25.0
Female	72.9	63.2	70.0	70.0	75.0
Grade Level*					
9	8.8	5.2	0.0	15.0	6.2
10	10.5	5.2	0.0	15.0	9.3
11	26.3	26.3	10.0	35.0	18.8
12	54.4	63.2	90.0	35.0	65.7
Age*					
15	5.4	0.0	0.0	5.3	6.3
16	17.9	26.3	10.0	26.3	15.6
17	30.4	26.3	30.0	15.7	40.6
18	39.3	31.6	40.0	47.4	31.2
19	7.1	15.8	20.0	5.3	6.3
Race/Ethnicity					
Black/African American	43.9	42.1	40.0	55.0	34.4
Multi-racial	21.1	15.8	10.0	5.0	31.2
Other	14.0	5.2	0.0	25.0	9.4
Hispanic or Latino	10.5	15.8	30.0	10.0	12.5
White	8.8	21.1	20.0	5.0	12.5
American Indian/ Alaska Native	1.8	0.0	0.0	0.0	0.0

Note: *Grade Level and Age is at the time of entry into the Starting Right, Now program.

Participants were recruited as a part of the larger study based upon their acceptance into the SRN program. When accepted in the SRN program, students signed the SRN contract indicating requirements for enrollment in the program. Immediately after signing the contract, the director of the SRN program provided students with a recruitment flyer for the current study

(Appendix A). If students were interested in participating in the study, they called the principal investigator, Dr. Raffaele Mendez, as indicated on the recruitment flyer. Students were provided information about the study by Dr. Raffaele Mendez and were read the verbal informed consent (Appendix B) and/or verbal assent (Appendix C) scripts. Student questions were also answered while talking on the phone with the principal investigator. Students provided verbal feedback while on the phone with Dr. Raffaele Mendez as to whether they agreed to participate in the study. Incentives were not provided for initial or continued participation in the study.

From December 2015 through October 2019 a total of 57 students provided verbal consent and assent to participate in the larger study. All participants completed surveys at Time 1. Six months and a year after admission into SRN (i.e., Time 2 and Time 3, respectively), all participants in this study were contacted by myself or a different VARSITY research group member to complete surveys. Time 1 surveys were completed upon entry into SRN. Time 2 surveys were completed after six months of participation in SRN. Time 3 surveys were completed after 12 months of participation in SRN. There were 19 participants who provided both Time 1 and Time 2 survey data, representing Sample A. Ten of those 19 participants also provided survey data at Time 3, representing Sample B. The remaining 38 participants did not provide survey data at either Time 2 or Time 3.

Sample C included Time 1 survey data from 20 participants who were no longer in the program at the one year mark, due to various reasons such as opting to not continue with the program once enrolled in college, moving out of the area served by SRN, and being dismissed from the program for various rule violations. The Sample C "Left the Intervention" group includes 9 of the participants who were included in Sample A but not Sample B, as well as 11 participants who did not provide longitudinal data either because they had left the program

before the 6 month survey or they remained in the program for some time but did not provide longitudinal data. For the participants in the "Left the Intervention" group, it is unknown the duration of the absence and whether they may have returned after the 12-month mark. According to SRN staff, although re-entry into the intervention is not a common practice, exceptions are sometimes made depending on the circumstances (SRN staff member, personal communication, March 8, 2021). Therefore, a limitation of the current study was that some participants may not permanently be a part of the "Left the Intervention" group. Sample C also included Time 1 survey data from 32 participants enrolled in SRN past the one year mark. The Sample C "Still Enrolled" group includes the 10 participants in Sample B, as well as the 22 participants who did not provide longitudinal data (i.e., did not take part in continued data collection), but nevertheless remained in the program. For many of the participants, SRN staff could only verify whether they left before the 12-month mark, and could not provide exact dates. Therefore, it is unknown how many participants in the "Left the Intervention" group left before or after the six month mark. For five of the 57 participants at Time 1, it was unknown when they left the intervention and they were thus excluded from Sample C.

The current study also included an interview transcript with an SRN staff member. The study principal investigator and I conducted the interview. The SRN staff member is a senior member who helps to facilitate the admission and dismissal decisions in SRN. In turn, the staff member is highly knowledgeable regarding the intimate personal backgrounds and needs of students in the SRN intervention. Experiences of the staff member have enhanced his/her knowledge base regarding mental health. Specifically, the staff member works closely with mental health care professionals that provide therapy and services to students; therefore, gaining information on students' mental health diagnoses, response to treatments, and ongoing concerns.

The staff member has also worked closely with mental health professionals and professors in the field of psychology to provide trainings to all students in SRN regarding various topics such as mindfulness and healthy coping strategies. Given the SRN staff member's knowledge of the students in the intervention and familiarity with mental health issues, he/she was believed to be the most credible and reliable person to answer questions regarding why some students dropped out or were dismissed from SRN.

Within the interview, the SRN staff member referred to 13 student participants who left or were dismissed from the program before the one year mark as of July 2018. These participants' data were also included in the Sample C, "Left the Intervention" group. These participants were assigned a participant number 1 through 13, in no particular order. Demographic data on the 13 participants discussed in the interview had been collected from their Time 1 participant surveys. The following demographic data does not include the age, grade, and ethnicity of Participant 11, or the age of Participant 10, due to incomplete data on the associated section of the Demographic Questionnaire. Nine of the 13 participants are female, with an age range from 16 to 19 years (M= 17.36) at the time of entry into SRN. Nine of the participants were in either 11th or 12th grades. Participants' self-identified ethnicities were Black or African American, Hispanic or Latino, White, Multi-racial, and an "other" ethnicity. The assigned participant numbers, gender, ages, grades, and ethnicities of participants are displayed in Table 3.

Table 3

Demographic Features of Participants Discussed in Interview

Participant Number	Gender	Age*	Grade Level*	Ethnicity
1	Female	17	12	Black or African American
2	Male	18	12	Hispanic or Latino
3	Male	19	12	Black or African American
4	Female	17	12	White
5	Female	17	12	Multi-racial
6	Female	18	11	Black or African American
7	Female	18	12	Black or African American
8	Male	19	11	White
9	Female	16	10	Black or African American
10	Female	--	9	Black or African American
11	Female	--	--	--
12	Female	16	11	Other
13	Male	16	9	Black or African American

Note: *Grade Level and Age is at the time of entry into the Starting Right, Now program, -- indicates missing data

Archival Survey Data Collection Procedures

Survey data were collected by the VARSITY research group at three different timepoints as part of a larger study to assess participant's psychopathology, well-being, and school engagement. The USF Institutional Review Board approved the use of verbal consent to be utilized in this study in order to protect the identity of participants. Parental consent was waived for participants under the age of 18 given that participants were unaccompanied adolescents and

were not legally in the custody of their parents when entering SRN. Survey data were collected for this study from December 2015 through October 2019.

Time 1 surveys were administered from December 2015 to October 2019 via paper and pencil survey on the same day students were accepted into the SRN program, but before entering the SRN house. Upon acceptance into the program, the SRN director gave students a recruitment flyer and access to a phone to call the principal investigator if they chose to learn more about the study. After speaking with the principal investigator, students provided verbal consent and assent if they chose to participate in the study. After consent was received, the director of SRN provided participants with the surveys to be completed. Once completed, the SRN director placed surveys in a sealed envelope and contacted the principal investigator. A member of the VARSITY research group retrieved the sealed envelopes.

Time 2 surveys were administered after six months of participation in SRN. Survey data for Time 2 were collected from June 2016 to July 2019 via the Survey Monkey online survey program or paper and pencil survey. Surveys were completed by participants at the SRN office on a private computer or via paper. Survey measures were presented in a different order than Time 1 to minimize order effects.

Time 3 surveys were administered after a year of participation in SRN. Survey data for Time 3 were collected from February to December 2017. Surveys were again administered through the Survey Monkey program on a private computer or via paper and pencil at the SRN office. Survey measures were again presented in a counterbalanced order so as to minimize order effects.

I conceptualized the current study in the summer of 2018. At this time, the majority of survey data had already been collected, and I facilitated communication with SRN staff to collect

any remaining surveys. Surveys are housed in a locked filing cabinet. The majority of surveys, were first scored by myself and entered into a password protected database. All surveys were ultimately scored by two members of the research team in order to ensure the accuracy. Prior to entering data into the database, participant surveys were de-identified with an assigned participant number.

Archival Interview Procedures

An interview with a senior board member of SRN was conducted in July 2018 by the principal investigator and I in order to better understand why participants may no longer be in the program and whether their leaving or being dismissed may be associated with mental health issues. Preliminary findings of the larger study indicated that many participants were no longer in SRN after one year. Therefore, we conducted an interview to explore reasons for this occurrence and whether mental health challenges contributed to students leaving SRN. The SRN staff member was recruited for participation in the interview after sharing their willingness to be interviewed for any research pertaining to SRN with the principal investigator. The principal investigator then contacted the staff member to explain the purpose of the interview and schedule an appointment to conduct the interview.

Inclusion criteria for the one participant who was interviewed were (1) facilitation of the admission and dismissal of students in SRN (2) in depth understanding of student's strengths, barriers, and life stories through consistent interaction with participants in the study and (3) knowledge of participants' date of entry into SRN. The interview was conducted in a private SRN office and lasted about 68 minutes. After reading the Interview Protocol (Appendix F) and prior to starting the formal interview, the SRN staff member signed a consent form (Appendix E).

For each student who did not have Time 2 and/or 3 survey data as of July 2018, I provided the interviewer with the date the participant entered the program. Subsequently, the SRN staff member searched for the participant in the SRN database in order to answer questions related to whether they are still in the program, potentially associated mental health barriers, and potential practices that could have prevented the participant from leaving the program. The SRN staff member discussed 13 participants who were no longer in the SRN. See Appendix F for the specific guiding questions asked during the interview. Clarifying questions were asked as needed to better understand the perspective of the SRN staff member. Participants' preferred pronouns were used during the interviews; however, participant names or other identifying information was not used in the discussion to preserve their identities.

Measures

Demographics questionnaire. Administered at Time 1, the Demographics Questionnaire (refer to Appendix G) was completed by all participants in the study. The form collected information pertaining to participant age, grade level, gender, and race/ethnicity.

Modified Depression, Anxiety, and Stress Scale- 21 items (DASS-21; S.H. Lovibond & P.F. Lovibond, 1995). The Modified DASS-21(Appendix H) was administered at all three time points in order to assess participant's emotional states of depression, anxiety, and stress. The wording of the directions and eleven questions on the DASS-21 scale was modified in order to help facilitate comprehension of the questions by the at-risk population of adolescents included in this study. For example, one of the original questions on the DASS-21 reads, "I felt down-hearted and blue". This question was modified to: "I felt down-hearted and sad". The DASS-21 was originally created for Australian adults. Moore et al. (2017) of also adjusted item wording of the original measure in order to increase interpretability for the United States high

school students included in their study of the DASS-21's factor structure. The wording on the DASS-21 utilized in this study was modified to increase interpretability specifically for the targeted population of study. To date, the majority of the empirical research regarding the DASS-21 has included adult and adolescent populations who are not in the United States (Henry & Crawford, 2005; Mellor, et. al., 2014; Ng et. al., 2007). Research of this measure in the United States has primarily focused on its use with college students (Tull & Gratz, 2008), pregnant women (Huang et al., 2014), and clinical populations (McMullen et. al., 2018; Nanthakumar et al., 2017). Therefore, the DASS-21 Modified version included in this study will continue to extend literature regarding the use of this measure with an at-risk adolescent population in the United States.

The Modified DASS-21 includes a series of 21 self-report statements that asks respondents to indicate the degree to which the statement applies. Responses are measured on a four point Likert scale ranging from zero to three. Modified DASS-21 response options include zero to three ratings; however, response option wording was also modified. For example, a rating of zero indicates that the statement does "not at all" apply. A rating of three indicates the statement applies "all of the time." For the purpose of the larger study, the directions and the response option wording were also adjusted to increase comprehension for the at-risk students included in this study. Modified directions asked, "In the past week, how much has each of the following statements applied to you?" (S.H. Lovibond & P.F. Lovibond, 1995).

The statements included in this measure are designed to measure the degree of emotional states of depression, anxiety, and stress. Each scale is comprised of seven questions. The DASS-21 measures five different severity levels of the three scales. The sum of each scale is calculated then doubled in order to correspond to scores on the 42-item DASS. The final score falls into one

of five descriptive categories of each scale, including the Normal, Mild, Moderate, Severe, or Extremely Severe dimension. Increased scores indicate a higher degree of negative problems. Questions related to the depression scale assess dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. Statements related to the anxiety scale assess automatic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. Statements related to the stress scale are targeted to examine levels of chronic non-situational arousal. Specifically, the stress scale assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/ over-reactive and impatient (S.H. Lovibond & P.F. Lovibond, 1995).

Development of the Depression and Anxiety scales of the DASS-42 item and DASS-21 item forms were based upon Clark and Watson's tripartite model. Within this model, anxiety and depression are both characterized by elevated negative affect, but they differ in terms of positive affect and physiological hyperarousal. Specifically, depression is differentiated by low levels of positive affect and anxiety by physiological hyperarousal (Clark & Watson, 1991). Therefore, the Anxiety scale of the DASS measures panic attack or physical arousal symptoms and the Depression scale measures anhedonia and dysphoric mood symptoms (S.H. Lovibond & P.F. Lovibond, 1995).

However, S.H. Lovibond and P.F. Lovibond's (1995) DASS model and tripartite model differ in their categorization of the symptoms of difficulty relaxing, tension, and irritability that comprise the Stress scale. The tripartite model combines difficulty relaxing, tension, and irritability symptoms, along with other symptoms, into a Negative Affect group, that is argued to underlie both depression and anxiety (Clark & Watson, 1991). The DASS model separates difficulty relaxing, tension, and irritability symptoms to define a third and distinct syndrome as

evidenced by the longitudinal stability of the Stress scale and the items of the Stress scale loading into a separate scale using factor analysis (Henry & Crawford, 2005; P.F. Lovibond, 1998; P.F. Lovibond & S.H. Lovibond, 1995). The Stress scale was originally named as such as it seemed to reflect underlying constructs of a stress response involving chronic arousal and impaired functioning as described by Selye (1974) and items of the scale appeared to create its own affective stress state, similar to what was described by Lazarus (1993). However, subsequent research on the measure found the Stress scale to be associated with DSM-IV criteria of Generalized Anxiety Disorder (GAD) and the Anxiety Scale with Panic Disorder (Brown et al., 1997). Specifically, the symptoms of difficulty relaxing, tension, and irritability are also similar to three of the six Criterion C symptoms for Generalized Anxiety Disorder (GAD; i.e. restlessness, muscle tension, and irritability) in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV; American Psychiatric Association, 1994). The other three criteria of fatigue, difficulty concentrating, and sleep disturbance in the DSM-IV tend to be relatively nonspecific markers of general distress and therefore were not included in the Stress scale (Brown et al., 1997; S.H. Lovibond & P.F. Lovibond, 1995; Watson et al., 1995). Furthermore, S.H. Lovibond and P.F. Lovibond (1995) argue that the scales of the DASS are inter-correlated due the three syndromes sharing common causes, such as genetic and environmental factors. They do not believe the scales are inter-correlated due to the syndromes sharing common symptoms, since non-specific symptoms (e.g. difficulty concentrating and sleep disturbance) were excluded from the measure (P.F Lovibond & S.H. Lovibond, 1995; S.H. Lovibond & P.F. Lovibond, 1995; P.F. Lovibond, 1998).

Both the DASS 42-item and 21-item forms have shown to be both reliable and valid measures of depression, anxiety, and stress in populations of adults (Antony, et. al., 1998; Henry

& Crawford, 2005; P.F. Lovibond, 1998; P.F. Lovibond & S.H. Lovibond, 1995; Taylor, et. al., 2005). Regarding reliability, Antony et al. (1998) found that the factor structure of the DASS-21 was similar to that of the DASS. All items on the DASS-21 loaded on the associated scale with factor loadings of >.30. Internal consistency of the DASS-21 subscales was found to be high with the following Cronbach's alphas: .94 for Depression, .87 for Anxiety, and .91 for Stress. The concurrent validity of the DASS and DASS-21 to other measures of anxiety and depression yielded moderately high correlations. The DASS-21 Anxiety scale correlated most highly with the Beck Anxiety Inventory (BAI; r= .85). The DASS-21 Depression scale correlated with the Beck Depression Inventory (BDI; r= .79). Given that the Stress scale measures many symptoms associated with Depression and Anxiety, as expected, the DASS-21 Stress scale correlated highly with measures of depression (BDI, r= .69) and anxiety (BAI, r= .70; State-Trait Anxiety Inventory - Trait version, r= .68). When comparing the DASS and DASS-21 across the clinical and nonclinical samples, pattern findings were similar for both versions. Further enhancing validity, clinically depressed participants scored higher on the Depression and Stress subscales, while clinically anxious scored highest on the Anxiety subscale. The nonclinical population scored lowest on all subscales (Antony et. al., 1998).

While the DASS has been utilized in previous studies with adolescents (Einstein et al., 2000; Sawrikar & Hunt, 2005), psychometric properties have not yet been established for youth younger than 18. For younger adolescents, some studies have indicated that the three emotional states measured on the DASS may not be distinct entities, as symptomatology of anxiety, depression, and stress often manifests differently. Previous studies have concluded that the three factor model on the DASS may still be developing during late childhood and early adolescence; therefore two-factor models summarizing symptoms of negative affect and anxiety may be most

appropriate (Duffy et al., 2005; Szabo´ & P.F. Lovibond, 2006). However, sample specific characteristics, such as sample size, sample diversity, and range of age, may have also influenced results of previous studies. Szabó (2010) sought to add to the psychometric literature base by testing several alternative models for young adolescents with a mean age of 13. Results indicated a poor fit of a one-factor model that assumed anxiety and depression were not distinguishable in young adolescents. Two-factor models and two-three factor models were also tested. Results consistently showed that the DASS model provided a relatively better fit than all aforementioned models. More recently, Lee (2019) examined the validity of the DASS-21 with a sample of college students with an average age of 20 years. Using Confirmatory Factor Analysis (CFA), they found a .87 convergent validity coefficient with a Psychological Distress variable. Results also corresponded with the theoretical claims of P.F. Lovibond and S.H. Lovibond (1995), showing high correlations between all three variables (i.e. nomological validity; $0.50 < r < 0.75$, $p < 0.001$) and appropriate ($r < .85$) discriminant validity between variables ($.66 < r < .72$).

Emotion Regulation Questionnaire (ERQ, Gross & John, 2003)**.** The ERQ (Appendix I) was administered at all three time points in order to assess participants' emotion regulation behavior. This measure is designed to assess one's tendency to regulate emotions through expressive suppression and cognitive reappraisal behaviors. Authors conceptualize cognitive reappraisal as one's ability to think differently about an emotion provoking situation in order to change the situation's emotional impact. Expressive suppression is defined as inhibiting the outward expression of emotional behavior. The ERQ is a 10-item measure, using a seven point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Six questions were designed to measure Cognitive Reappraisal and four questions to measure Expressive

Suppression. The average of each scale is calculated. Higher scores indicate greater use of the emotion regulation strategy.

In a series of studies, Gross and John (2003) found the ERQ to have moderate to high levels of reliability and validity with undergraduate students. Internal consistency of Cognitive Reappraisal items averaged a Cronbach's alpha of .79 and .73 for Expressive Suppression items. Test-retest reliability was .69 for both scales over the course of three months. Increased Emotional Suppression behavior was associated with minority American status and men. Ethnic differences for Cognitive Reappraisal were not found. Results of exploratory and confirmatory factor analyses on the same sample supported two factors. Test-retest reliability for 3 months was sound (r = .69 for both scales). Convergent validity results indicate that Cognitive Reappraisal was related to the Reinterpretation scale of the COPE Inventory (Carver et al., 1989; B= .43), Negative Mood Regulation scale (Catanzaro & Mearns, 1990; B= .30), and Repair scale of the Trait Meta-Mood questionnaire (Salovey et al., 1995; B= .36). Suppression was related to the Inauthenticity Scale (Gross & John, 1998; B= .47); Venting scale of the COPE (Carver et al., 1989; B= -.43); and the Attention (B= -.40) and Clarity (B= -.30) scales of Trait Meta-Mood questionnaire (Salovey et al., 1995). Discriminant validity results indicated modest associations with the Big Five Inventory (John & Srivastava, 1999). The largest beta for reappraisal was -.20 with the Neuroticism scale and - .41 for suppression and the Extraversion scale.

Gullone and Taffe (2012) conducted a psychometric evaluation of a revised version of the ERQ for 827 children and adolescents between 10 and 18 years old (ERQ-CA) in Australia. Similar to results of Gross and John (2003), internal consistency or reliability coefficient for the cognitive reappraisal scale was .82 and .79 for the expressive suppression scale for 16 to 18 year olds. Over a 12-month period retest coefficients for 16 to 18 year olds were .47 and .63 for the

cognitive reappraisal and expressive suppression scales, respectively. Support for construct and convergent validity was also demonstrated through associations with other measures of coping, personality, and mood regulation (COPE, Trait Mega-Mood questionnaire, Negative Mood Regulation Scale, Big Five Inventory). While the ERQ and modified versions has been studied with a few different populations such as clinical health patients (e.g., oncological patients; Brandão et al., 2017), university students (Ioannidis & Siegling, 2015), and international adolescents (Liu et al., 2017), its use with at-risk adolescents in the United States continues to be an area of study needed.

School Engagement Scale (SES, Fredricks et al., 2005)**.** The SES (Appendix J) was administered at all three time points in order to assess participants' behavioral, cognitive, and emotional engagement in school. Behavioral engagement involves participation in academic, social, and/or extracurricular activities (Connell, 1990; Finn, 1989). Emotional engagement involves one's appeal to the school environment, which is presumed to impact connectedness to the institution and willingness to complete work. Emotional engagement includes both positive and negative reactions to teachers, peers, academics, or school (Connell, 1990; Finn, 1989). Cognitive engagement draws on the concept of investment in school. It includes being thoughtful and willing to exert effort in order to gain understanding and mastery of complex and/or difficult ideas and skills (Corno & Mandinach, 1983; Fredricks et al., 2004; Newmann et al., 1992). The SES is comprised of fifteen statements in which participants select response options on a Likert scale from one (*Never*) to 5 (*Very True*). Five statements comprise the Behavioral subscale, six comprise the Emotional subscale, and eight comprise the Cognitive subscale. Three items are reverse scored. Items in each subscale are averaged to create scores for each subscale and a total School Engagement score. Scores are measured on a continuous scale, with higher scores

indicating more engagement. Fredericks et al. (2005) examined the psychometric properties of the three subscales with elementary aged children in inner-city, majority free or reduced lunch schools. All items associated with the subscales had high factor loadings on the theorized factors of Behavioral Engagement (Cronbach's alpha: .77), Emotional Engagement (.86) and Cognitive Engagement (.82). Reliability was similar for both boys and girls.

Regarding validity, results indicated that girls reported significantly higher scores on all subscales (Behavioral: F= 25.15, p< .001; Emotional: F= 8.68, p<.01; and Cognitive: F= 6.59, p<.01). Concurrent validity between the three subscales and the students' perceptions of school context derived from literature was also examined. Zero-order correlations between the three subscales of the SES and subscales of perceptions of school (i.e. perceived teacher support, perceived peer support, work orientation, perceptions of school value, and task challenge) resulted in significantly positive correlations ranging from .23 to .49. Reports of school attachment had the highest correlation to the SES subscales (r = .44 to .57). Teachers' report of students' behaviors was highly correlated with students' report of school engagement. In general, correlations were strongest with the full scale and outcome variables than with individual items. Other studies have also found evidence of strong convergent validity with the Student School Engagement Measure (r= .80) in a population of middle school students in the United States (Hazel et al., 2014).

Hazel and colleagues (2014) also engaged in a subset of follow-up interviews in order to better understand phenomenology of engagement and add to the validity of the measure. Through the use of different analytic techniques, including scoring of interviews on a one to ten engagement scale, they found exact correspondence between SES and interview results for high and low engaged students. Overall, highly engaged students were more positive regarding their

classroom, teachers, and peers. Low engaged students varied in their reasons for disengagement. Some reasons included academic work being too easy or too hard and social problems with peers and/or teachers (Hazel et al., 2014).

Interview protocol. The principal investigator and I created a semi-structured interview protocol (see Appendix F) that was utilized to conduct the interview with the SRN staff member. The interview questions were developed in order to better understand the preliminary finding that some participants are leaving or being dismissed from SRN less than a year after being admitted into the program, thus reflecting a mixed methods explanatory sequential design (Crewell, 2015). Semi-structured interviewing is used primarily in mixed methods research when researchers are seeking specific information. This format allows researchers to respond to the specific research questions at hand, as well as ask questions regarding new ideas, worldviews, and information presented during the interview (Merriam, 2016). In the current study, semi structured interviewing was appropriate because while researchers sought specific information regarding the association between leaving SRN and mental health issues, they also required flexibility to ask follow-up questions if unclear or new insight was presented by the SRN staff member.

At the start of the interview, I read the introduction on the protocol that explained the purpose of the interview, which is to better understand why certain participants may no longer be in the program, and whether their leaving or being dismissed may be associated with mental health issues. It was explained that for each student that does not have Time Point 2 and/or 3 data, and for whom the SRN staff verified the youth had discontinued the program, the following questions would be asked: (1) To what degree do you believe that mental health issues (e.g. depression, anxiety, etc.) were a factor in this student leaving or being dismissed from SRN? If

you believe mental health issues were a factor, please explain what happened with the student. (2) In retrospect, do you believe that you or other SRN staff could have done something different to avoid having the student dismissed from the program? I requested that the SRN staff member not use any names or identifying information of the participants outside of their preferred pronouns (e.g., he, she). After consent was signed by the SRN staff member, these questions were asked for each participant with missing data points.

I transcribed the interview by listening to the audio recording and typing the interviewee's words verbatim. Another graduate student in a school psychology program reviewed the transcript for accuracy and make corrections to the transcription as needed.

Regarding interviewer experience and competency of the principal investigator and I, we both were familiar with interviewing techniques, particularly phenomenological interviewing that focuses on allowing the interviewees to tell their stories in their own words (Bevan, 2014). We were also familiar with best practices in semi-structured interviewing techniques as used in this current study (Merriam & Tisdell, 2016). Further, I received extensive interview training through my doctoral coursework in School Psychology. The principal investigator currently works as a faculty member in a School Psychology training program, teaching students therapeutic and consultative interviewing skills. I have worked as a school psychologist in public schools applying interviewing skills during psychoeducational evaluations, counseling, and consultation with various stakeholders.

Data Analysis

Archival survey data analysis. In order to answer research questions 1 – 7 within this study, 19 participants in Sample A and 10 participants in Sample B were examined. Descriptive analyses were calculated to determine average scores on rating scales and percentages of

participants in various categorical levels of distress. Due to limited data points for each participant, descriptive analysis rather than visual analysis (i.e., graphs) were conducted to reflect each participant's data on the Modified Depression, Anxiety, and Stress Scale- 21items (DASS-21), the Emotion Regulation Questionnaire (ERQ), and the School Engagement Scale (SES), respectively.

In order to analyze changes in variables over time within Samples A and B, dependent or paired samples *t*-tests were conducted. This test was used to determine whether there was a statistically significant difference in a given outcome between baseline (Time 1) data and Time 2 data, first for all participants in Sample A. It was also used to determine if there was a statistically significant difference in a given outcome between Time 2 and Time 3 data for all participants in Sample B. Effect size was also calculated (Cohen's *d*). A dependent *t*-test is a parametric test of difference that assumes groups come from the same population and data are approximately normally distributed and have a similar amount variance within each group being compared. The null hypothesis of the *t*-test is that there is no difference between two measurements. If the research hypotheses were supported, participants would show improvement on the positive mental health (i.e. cognitive reappraisal on the ERQ) and school engagement (i.e. school engagement, behavioral, emotional, and cognitive engagement on the SES) outcomes. Conversely, participants would show a decline in negative mental health outcomes (i.e. depression, anxiety, and stress on the Modified DASS-21; emotional suppression on the ERQ).

In order to analyze Sample C, an independent samples *t*-test was utilized to determine statistical significance between outcomes for participants who remain and do not remain in SRN past one year. Effect size was also calculated (Cohen's *d*). An independent samples *t*-test is a parametric test of difference that assumes groups come from different populations, that data are

approximately normally distributed, and that data have a similar amount variance within each group being compared. The null hypothesis for this test is that outcomes between the two groups (i.e. participants remaining in SRN and participants who are no longer in SRN) are equal. If the research hypotheses are supported, compared to participants still in the program past one year, participants no longer in the program would have higher negative mental health outcomes at baseline (i.e. depression, anxiety, and stress on the Modified DASS-21; emotional suppression on the ERQ). Conversely, they would also have fewer positive mental health (i.e. cognitive reappraisal on the ERQ) and less school engagement (i.e. school engagement, behavioral, emotional, and cognitive engagement on the SES) outcomes.

The Wilcoxon Signed-Rank Test is a nonparametric, inferential, statistical test utilized with small sample sizes that does not assume normality of data. Esposito (2018) utilized the Wilcoxon Signed-Rank Test to analyze longitudinal changes in hope, life satisfaction, and coping strategies of ten participants in SRN and yielded significant findings using this type of analysis. Both the Wilcoxon Signed-Rank Test and *t*-test was used to analyze the data. However, the *t*-test was utilized for this study as the results for skewness and kurtosis reported in Chapter 4 were within normal limits, indicating normality of data. Further, I conducted sensitivity analyses to determine if the statistical approach used affected findings, and ran the analyses two ways: using the Wilcoxon Signed-Rank Test and using dependent sample t-tests. The conclusions from the two approaches were the same, thus only findings from the dependent t-tests are reported in Chapter 4. The SPSS statistical software was utilized to analyze data in this study.

Archival interview data analysis. The transcribed interview with the director of SRN was analyzed in order to answer the eighth research question: What does an interview with an SRN staff member reveal about why students leave or are dismissed from SRN? Thematic

analysis was used to report patterns or themes within the interview data. Thematic analysis is a common form of analysis used in qualitative research as it allows for flexibility in analyses within a variety of methodological perspectives (Braun & Clark, 2006), including pragmatism.

During the thematic analysis, both a deductive and inductive approach to theme development was used. This approach is also supported by pragmatists and is referred to as "abduction" (Morgan, 2007), which was helpful in discovering and verifying themes within the interview. The deductive approach examined whether resilience theory research on existing risk and protective factors for UHY emerge as themes in understanding why participants left the intervention prematurely. An inductive approach was also utilized to derive themes from the interview data itself (Merriam, 2009).

The foundation of the six step guide for thematic analysis proposed by Braun and Clarke (2006) was utilized to answer the aforementioned research question. First, I familiarized myself with the interview by reviewing the transcript and tape recording. Phase two was to develop initial codes and definitions for a codebook. The interview was coded independently by two researchers-- myself and the principle investigator of the larger study. We then collaboratively agreed upon codes that were acceptable and encompassed all features of the interview data. To address inter-coder agreement and credibility of the process, I coded the interview independently, then collaboratively agreed upon codes with the professor (MacQueen et al., 1998). Both semantic (explicit) and latent (interpretative) features of the interview data were considered when developing themes. For example, latent features, such as pauses, inflections, or omissions may reflect sarcasm and may impact the interpretation of the code (Braun & Clarke, 2006).

In the third phase I developed themes by sorting codes into broader themes that answered the proposed research questions. At this phase, no codes were discarded and overarching and subthemes were considered. The fourth phase consisted of reviewing the themes with the professor to devise a set of primary themes. Themes were re-evaluated and modified. Within this phase, we ensured that codes within themes were cohesive and followed a coherent pattern. We also ensured that themes were explicitly distinct from one another. In order to ensure the validity of individual themes, we confirmed that each theme reflected multiple participants described in the interview. This phase was complete when we felt comfortable with the various themes that emerged from the interview, how they connect, and how accurately they reflected the reality presented by the SRN staff member.

Phase five involved defining and naming the themes. In this phase, I returned to the data extracts for each theme and developed a name that best represents the overall concept of the theme. Next, I wrote a detailed description of the theme and its relation to the research question and other themes. Theme names and descriptions were agreed upon by a professor (Braun & Clarke, 2006). The last phase of thematic analysis of the archival interview was to produce the results. It is recommended that the write-up of results include "concise, coherent, logical, non-repetitive and interesting accounts of the story the data tell-- within and across themes" (Braun & Clarke, 2006, p. 93). Examples and excerpts were used to make a connection between the data and the research question (Braun & Clarke, 2006).

Chapter IV

Results

This chapter provides the results of the analyses conducted to address the research questions in this study. First, reliability and descriptive statistics of Time 1 survey data will be provided. Then, results from dependent and independent sample *t*-tests will be summarized. Effect sizes of observed differences will also be described. Lastly, results of the thematic analysis of an interview with an SRN staff member will be summarized in order to better understand why students leave or are dismissed from Starting Right, Now, as well as considerations for the program moving forward.

Data Screening and Missing Data

To screen for errors and accuracy, the minimum and maximum scores of each outcome variable were examined. There were no irregular scores found during data screening. Surveys included in analyses contained at least 70% of items in each subscale (Nunnally, 1978). Of note, 95% of surveys had all items completed.

Scale Reliability

Internal reliability was calculated for all measures used in this study (e.g. DASS-21, SES, ERQ). Internal reliability was only calculated for measures at Time 1 due to the small sample sizes at Time 2 and 3. At Time 1, for 57 participants, the internal consistency (as measured by the coefficient alpha) for the DASS-21 Depression, Anxiety and Stress subscales were .86, .76, and .83, respectively. For the SES, coefficient alpha values for the Total Score and Behavioral, Emotional, and Cognitive Engagement subscales were .88, .44, .89, and .78, respectively. For the

ERQ, the coefficient alpha value for the Cognitive Reappraisal scale was .85 and .72 for the Expressive Suppression scale.

Descriptive Analyses of Time 1 Surveys

In order to answer research questions one, two, and three regarding levels of participants' depression, anxiety, stress, emotion regulation, and school engagement when entering SRN, descriptive analyses were calculated and are summarized in Table 4.

Table 4

Descriptive Statistics of All Measures Completed at Time 1

Measure Subscales	Mean	*SD*	Median	Mode	Skewness	Kurtosis
DASS-21						
Depression	14.49	10.49	12.00	0.00	.38	-.80
Anxiety	12.49	8.82	12.00	6.00	.51	-.58
Stress	16.18	10.07	16.00	18.00	.31	-.89
ERQ						
Expressive Suppression	4.69	1.27	4.50	4.50	.17	-.55
Cognitive Reappraisal	5.17	1.32	5.17	6.00	-.44	-.54
SES						
Total	3.36	.68	3.27	3.07	-.072	.15
Behavioral	4.03	.63	4.00	3.75*	-.18	-.45
Cognitive	2.84	.88	2.80	2.80*	.15	-.40
Emotional	3.35	.91	3.50	3.50*	-.41	.04

Note: *Multiple modes exist. The smallest value is shown.

The DASS-21 Scoring Table indicating the severity ranges for particular scores is summarized in Table 5. Higher scores represent a higher degree of severity of symptoms as measured by the DASS-21. Severity labels describe the range of scores in the population. For example, a "mild" score indicates a person is above the population mean; however, likely far below typical severity of a person seeking clinical assistance. It does not indicate a mild level of a disorder.

Table 5

DASS-21 Scoring Table

Severity Label	Depression Score	Anxiety Score	Stress Score
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Table 6 presents the proportion of participants that fell within each of the categories of DASS-21 symptomatology at Time 1. For the 57 participants who completed the DASS-21 at Time 1 or upon entering SRN, 33.4% had scores that fell in the Mild or Moderate ranges and 31.8% had scores that fell into the Severe or Extremely Severe ranges on the Depression subscale. On the Anxiety subscale of the DASS-21, 35.1% of participants' scores fell in the Mild or Moderate ranges and 31.9% fell in the Severe or Extremely Severe ranges. On the Stress scale of the DASS-21, 31.6% of scores fell in the Mild or Moderate ranges and 22.9% of scores fell into the Severe or Extremely Severe ranges. These scores indicate that upon entering SRN, over 65 and 67% of participants experienced an elevated level of depression and/or anxiety, respectively; and about 54% experienced elevated levels of stress as measured by the DASS-21. The mean scores on the DASS-21 Depression (M= 14.49, SD= 10.49) and Anxiety (M= 12.49, SD= 8.82) subscales fell in the Moderate ranges, while the mean score on the Stress subscale (M= 16.18, SD= 10.07) fell in the Mild range. Given the large standard deviations, other measures of central tendency are listed in Table 4. On the DASS-21, the median scores on the Depression, Anxiety, and Stress subscales fell in the Mild, Moderate, and Mild ranges, respectively. Of note, Appendix K presents the percentage of participants in Sample B (n=10) that fell into the various DASS-21 severity levels at Time 1, 2, and 3.

Table 6

Percentage of Participants at Time 1 by Severity Label on the DASS-21

Severity Label	Depression %	Anxiety %	Stress %
Normal	35.1	33.3	45.6
Mild	17.6	8.8	19.3
Moderate	15.8	26.3	12.3
Severe	17.6	10.6	15.8
Extremely Severe	14.2	21.3	7.10

On the ERQ, higher scores indicate greater use of the emotion regulation strategy. Average scores range from 1 to 7 with a score of 1.00 indicating a participant strongly disagreed with endorsing use of the strategy, a score of 4.00 indicating a participant was neutral with endorsing use of the strategy, and a score of 7.00 indicating a participant strongly agreed to using the strategy. On the ERQ, the mean Expressive Suppression score *(M*= 4.69, *SD*= 1.27) fell slightly above the Neutral score of 4.00 and the mean Cognitive Reappraisal score *(M*= 5.17, *SD*= 1.32) fell between the Neutral and Strongly Agree descriptors. Refer to Table 4 for detailed descriptive statistics of participant scores on the ERQ at Time 1.

On the SES, higher scores indicate greater school engagement. Average scores range from 1 to 5, with the following scale descriptors indicating the degree to which a participant endorsed a statement: 1= Never, 2= On Occasion, 3= Some of the Time, 4= Most of the Time, 5= All of the Time. On the SES, the mean Total Engagement score *(M*= 3.36, *SD*= .68) fell between Some of the Time and Most of the Time. The mean Behavioral score *(M*= 4.03, *SD*=.63) corresponded to Most of the Time. The mean Cognitive score *(M*=2.84*, SD*= .88) was most near Some of the Time. The mean Emotional score *(M*= 3.35, *SD*= .91) fell between Some of the Time and Most of the Time.

Dependent and Independent *t*-test Analyses

In order to answer research questions four through six, dependent or paired samples *t*-tests were used to determine potential differences in outcome variables for Samples A and B. Wilcoxon Signed-Rank tests, a nonparametric statistical test utilized with small sample sizes that does not assume normality of data, were also calculated for Samples A and B. Results of Wilcoxon Signed-Rank tests yielded the same conclusions with respect to statistically significant outcomes as the dependent samples *t*-tests. Therefore, given the normality of the data, based on skewness and kurtosis scores listed in Table 4, dependent samples *t*-tests were utilized and results are described below.

Sample A. In order to determine if participants experienced significant differences in anxiety, depression, stress, emotion regulation strategies, and school engagement between Time 1 and Time 2, Sample A was analyzed. Sample A included 19 participants who completed the measures at Time 1 and 2. Regarding the DASS-21, results of the dependent sample *t*-test indicated a statistically significant decrease in Depression from Time 1 (M= 12.74, SD= 9.24) to Time 2 (M=6.94, SD= 7.56; $t(18)$= 1.20, p= .009) and the effect size was moderate (d= .69). There was also a statistically significant decrease in Stress from Time 1 (M=17.05, SD= 11.12) to Time 2 (M=7.84, SD= 7.84; $t(18)$= 2.42, p=.026) and the effect size was also moderate (d=.70; Cohen, 1988). There was no significant difference in Anxiety scores between Time 1 and Time 2. See Table 7 for mean scores at Times 1 and 2, *t* and *p* values from the dependent sample *t*-tests, and effect sizes for DASS-21 anxiety and all other scales from the DASS-21, ERQ, and SES.

Regarding the ERQ, there were also 19 participants included in the dependent sample *t*-tests analyses. Results indicated no significant differences in Expressive Suppression or

Cognitive Reappraisal scores between Time 1 or 2. Of note, although Expressive Suppression did not reach statistical significance between Time 1 and 2, the effect size was moderate (d= .64), which may indicate the sample size was not large enough to provide the precision needed to display a statistically significant result. Regarding the SES, there were 18 participants included in analyses, due to one survey being incomplete. Results indicated there were no significant differences in Total, Behavioral, Cognitive, or Emotional Engagement scores between Time 1 and Time 2.

Table 7

Descriptive Statistics and t-test Results for All Outcomes from Time 1 to Time 2 in Sample A

	Time 1		Time 2						
Measure Subscales	*M*	*SD*	*M*	*SD*	*n*	df	*t*	*p*	*d*
DASS-21									
Depression	12.74	9.24	6.94	7.56	19	18	1.20	.009**	.69
Anxiety	13.16	9.44	10.42	7.44	19	18	1.20	.247	.32
Stress	17.05	11.12	7.84	7.84	19	18	2.42	.026*	.70
ERQ									
Expressive Suppression	4.68	1.35	3.82	1.35	19	18	1.86	.079	.64
Cognitive Reappraisal	5.01	1.20	5.33	1.36	19	18	-.842	.411	-.25
SES									
Total	3.30	.76	3.40	.75	18	17	-.822	.423	-.15
Behavioral	3.98	.61	4.00	.62	18	17	-.106	.917	-.03
Cognitive	2.74	1.11	3.13	1.13	18	17	-1.64	.119	-.35
Emotional	3.31	.79	3.24	.86	18	17	.551	.589	.09

Note: *p< .05, **indicates of p< .01, d represents Cohen's d

Sample B. In order to determine if participants experienced significant differences in anxiety, depression, stress, emotion regulation strategies, and school engagement between Time 2 and Time 3, as well as between Time 1 and Time 3, Sample B was analyzed. Sample B includes 10 participants who completed the measures at all three timepoints. See Table 8 for mean scores at Times 2 and 3, and Table 9 for mean scores at Time 1 and 3; both tables present t and p values from the dependent sample t-tests, and effect sizes for all DASS-21, ERQ, and SES

scales. Regarding the DASS-21 and ERQ, there were no significant differences in any subscale scores between Time 2 and Time 3, or Time 1 and Time 3. Of note, although the DASS-21 Depression (d= -.79) and Stress subscales (d= -.65) did not reach statistical significance between Time 2 and 3, the effect sizes were moderate, which may indicate the sample size was not large enough to provide the precision needed to detect a statistically significant effect despite the apparent trend for increasing scores (i.e., declining mental health) from 6- to 12-month follow-up. On the DASS-21, Depression, Anxiety, and Stress scores increased between Time 2 and Time 3, although increases were not statistically significant. Of note, in this reduced sample (10 participants vs. 19 in Sample A), all DASS-21 subscales decreased from Time 1 to 3 in Sample B (decrease not statistically significant), suggesting that the improvements in mental health problems observed in Sample A may have eroded by the Time 3 check-in six months later. Regarding the SES, results of dependent sample t-test indicated a significant decrease in Behavioral Engagement from Time 2 (M=4.23, SD= .52) to Time 3 (M=3.58 , SD= .68); $t(9)$= 2.49, p=.035. The effect size for this decrease was large (d= 1.07). There were no significant differences in Total, Emotional, or Cognitive Engagement from Time 2 to 3, or Time 1 to 3.

Table 8

Descriptive Statistics and t-test Results for All Outcomes from Time 2 to Time 3 in Sample B

	Time 2		Time 3						
Measure Subscales	*M*	*SD*	*M*	*SD*	*n*	Df	*t*	*p*	*d*
DASS-21									
Depression	3.60	3.75	9.00	8.86	10	9	-1.82	.102	-.79
Anxiety	6.80	6.12	7.80	9.59	10	9	-.43	.678	.20
Stress	7.60	7.11	13.20	9.99	10	9	-2.22	.054	-.65
ERQ									
Expressive Suppression	3.78	1.15	4.05	1.79	10	9	-.490	.636	.18
Cognitive Reappraisal	5.78	1.46	5.72	1.27	10	9	.10	.926	.04
SES									
Total	3.62	.69	3.45	.66	10	9	.983	.351	.00
Behavioral	4.23	.52	3.58	.68	10	9	2.49	.035*	1.07
Cognitive	3.36	1.07	3.42	1.30	10	9	-.19	.857	-.05
Emotional	3.43	.90	3.40	1.11	10	9	-.413	.689	.03

Note: **p*< .05, *d* represents Cohen's *d*

Table 9

Descriptive Statistics and t-test Results for All Outcomes from Time 1 to Time 3 in Sample B

	Time 1		Time 3						
Measure Subscales	*M*	*SD*	*M*	*SD*	*n*	df	*t*	*p*	*d*
DASS-21									
Depression	11.00	7.62	9.00	8.86	10	9	-.70	.504	.24
Anxiety	11.88	8.30	7.80	9.59	10	9	-1.11	.294	.45
Stress	17.00	11.16	13.20	9.99	10	9	-.80	.442	.36
ERQ									
Expressive Suppression	4.80	1.33	4.05	1.79	10	9	1.67	.130	.41
Cognitive Reappraisal	5.47	1.11	5.72	1.27	10	9	.763	.465	-.21
SES									
Total	3.51	.77	3.45	.66	10	9	-.33	.747	.08
Behavioral	3.88	.72	3.58	.68	10	9	-.937	.373	.43
Cognitive	3.16	1.17	3.42	1.30	10	9	1.22	.253	-.21
Emotional	3.55	.86	3.40	1.11	10	9	-.413	.689	.15

*Note:***p*< .05, *d* represents Cohen's *d*

Sample C. Sample C was analyzed in order to determine if there were significant differences in baseline levels of depression, stress, anxiety, emotion regulation, and school engagement among students who persisted in SRN (i.e. "Left the Intervention" group) and those

who dropped out of the program before the one year mark (i.e. "Still Enrolled" group). Sample C included 32 participants in the "Still Enrolled" group, who stayed in the program for at least one year (12 or more months). Sample C also included 20 participants in the "Left the Intervention" group, who left before the one year mark (0 to 11 months). Independent sample t-tests were used to determine significant differences between samples. Equal variances between samples was assumed. Regarding the DASS-21, ERQ, and SES, there were no significant differences in any subscale scores between the "Left the Intervention" group and the "Still Enrolled" group. See Table 10 for detailed results of Sample C.

Table 10

Descriptive Statistics and t-test Results for All Outcomes at Time 1 in Sample C

	"Left the Intervention" group (*n*=20)		"Still Enrolled" group (*n*=32)					
Time 1 Measure Subscales	*M*	*SD*	*M*	*SD*	F	*t*(50)	*p*	*d*
DASS-21								
Depression	15.10	11.67	14.44	9.95	.376	-.218	.828	.06
Anxiety	12.10	8.37	13.56	8.72	.044	.597	.553	-.17
Stress	14.90	9.70	17.88	10.24	.247	1.04	.303	-.30
ERQ								
Expressive Suppression	4.70	1.64	4.63	1.00	10.21	-.184	.855	.05
Cognitive Reappraisal	5.14	1.56	5.02	1.18	1.04	-.329	.744	.09
SES								
Total	3.29	.81	3.41	.65	1.35	.617	.540	-.15
Behavioral	4.08	.71	3.97	.58	1.15	-.578	.566	.17
Cognitive	2.73	.99	2.91	.86	.643	.679	.500	-.20
Emotional	3.23	1.04	3.46	.88	.503	.482	.408	-.24

Note: **p*< .05, *d* represents Cohen's *d*

Thematic Analyses of Interview with SRN Staff Member

This section presents the themes that emerged from an interview with an SRN staff member regarding 13 participants who left or were dismissed from the program before the one-year mark. These 13 participants were chosen as they were identified in the preliminary analysis as having dropped out of SRN as of July 2018. It is expected that participants in SRN remain in the intervention for at least a year, and desirably through their college years to provide supports as needed. The interview was conducted in order to better understand the preliminary finding that many participants left or were dismissed from SRN before the six-month or one-year mark. Using thematic analysis as described by Braun and Clarke (2006), the interview was analyzed to explore the proposed research questions: *What does an interview with an SRN staff member reveal about why students leave or are dismissed from SRN?*

The interview was analyzed with an eye toward natural themes that emerged from the content that the SRN staff member chose to share. Themes were agreed upon by myself and the primary investigator. Eight themes emerged from the interview that included the discussion of 13 participants who left or were dismissed from the program. Table 11 includes the names and descriptions of the resulting themes, as well as the assigned student numbers of the participants included in the theme. Theme names were developed to summarize the content of each theme. Themes are not listed in any particular order.

Table 11

Summary of Themes of Perceptions Expressed by the SRN Staff Member Interviewed

Theme name	Description of theme	Student number included in theme
1. History of trauma	All participants who left the program early experienced a history of housing instability and trauma, such as sexual abuse and loss of a parent.	All
2. Unresolved mental health issues and drug addiction	Participants who left the program early experienced unresolved mental health issues, such as suicidal ideation and depression. Some also experienced drug addiction.	Mental health issues: 1, 2, 4, 5, 8, 12, 13 Drug use: 4, 8, 12, 13
A. Refusal to participate in mental health treatment	A subtheme of theme two, was how some participants who left SRN early also chose not to attend mental health therapy or drug rehabilitation treatment when offered by SRN.	4, 5, 8, 12, 13
3. Derailed by the family	Participants who left SRN early, experienced setbacks as a result of their families.	1, 12, 13
4. Trust issues	Participants who left SRN early, experienced difficulty trusting others, including SRN staff.	1, 3, 7, 13
5. Benefited while in the program	Participants who left SRN early, still experienced benefits while in the program that they may have never received outside of participation in SRN, such as high school graduation and crisis mental health care support. Some participants also voluntarily left as they had supports outside of SRN.	1, 2, 3, 4, 5, 6, 7, 8, 12, 13
6. Setbacks and wanting to return to SRN	Participants who left SRN early, experienced setbacks and hardships when voluntarily or involuntarily away from SRN. Some participants also asked to return to the program after leaving.	Setbacks when away: 1, 4, 12, 8, 13 Asked to return: 3, 4, 8
7. Considerations for SRN moving forward	Some participants who left early, experienced difficulties being the first students on a new SRN campus. The SRN staff member reflected on the importance of a sense of community and a strong adult support system for students, as well as addressing potential vicarious trauma for staff.	9, 10, 11

Theme one: History of trauma. One of the most prevalent themes that emerged from the interview with the SRN staff member was the trauma experienced by nearly all of the participants who left SRN before the one year mark. The staff member described that most students in the program have experienced Adverse Childhood Events (ACEs) or potentially traumatic events that occur from birth to 17 years that increase one's risk for negative mental health, physical, economic, and interpersonal outcomes. The staff member stated, "Right, the ACEs score… my kids have the majority of those and it's just like their vulnerable, vulnerable, vulnerable…" ACEs can include traumatic events such as experiencing abuse, neglect, or witnessing violence, as well as being in a household with substance abuse, familial mental health problems, and instability due to parental separation or familial incarceration (Centers for Disease Control and Prevention, 2019).

Regarding the thirteen students who left the program prematurely, the SRN staff member noted how they *all* experienced some form of a trauma. All of the participants experienced housing instability, which is what led them to SRN. For example, Student 3 experienced frequent mobility, almost monthly, within the foster care system, while Student 11 was chronically homeless with her parent. The staff member described how the participants who left had experienced physical abuse, sexual abuse, emotional abuse, parental neglect, witnessed domestic violence, experienced the loss of a parent, and/or witnessed family drug use. Some also had a parent choose their romantic partners over housing and supporting their child. For some of the 13 participants, they also experienced trauma while being in the program, such as being sexually assaulted when away from the SRN house. The staff member explained the abuse of Student 7,

> She had intense trauma… her father sexually molested her from age 7, almost every morning and then would get her dressed for school. And that went on until she was 16 years old… And while in our program, had to testify against her father.

The traumatic events experienced by the participants often co-occurred with mental health and drug issues that are described in the next theme. The SRN staff member explained that most participants who enter SRN have experienced significant trauma.

Theme two: Unresolved mental health issues and drug addiction. The second theme that emerged from the interview with the SRN staff member was the unresolved mental health issues and drug addiction of many of the participants who left SRN before the one year mark. The staff member described how at the time of leaving, seven of the thirteen participants who left the program prematurely, had experienced known mental health issues such as suicidal ideation, suicidal attempts, non-lethal self-injurious behavior, and depression. One participant had an intellectual disability and was placed in a more appropriate program. Further, four of the aforementioned seven participants left the program due to continued drug use. All of the seven participants had a history of trauma, from being forced out by a parent that chose a partner over the youth to experiencing abuse from a family member to witnessing domestic violence. However, three of the four participants who engaged in drug use, had also experienced a recent trauma while being in the program, in conjunction with a history of trauma. For example, Student 4 was sexually assaulted away from the SRN building and likely has a history of sexual abuse and parental abandonment. The staff member also described the guilt that Student 13 felt regarding his mother being violently assaulted by his sibling and stepfather, on two separate occasions,

> His mother had been stabbed [repeatedly] by his sister…and she lived but was really badly hurt. And what he said to me was, "If I would have been there, it wouldn't have happened." And I said, "No, that's not true. That's not on you. This is on your sister." And his sister…is being tried as an adult. So there were a lot of things going on.

In addition to a history of trauma and having experienced recent trauma, two of the four participants who left due to drug use (i.e. Student 12 and Student 4), began using after having voluntarily left the program for a period of time. When they asked to come back, they were then using drugs, and refused drug rehabilitation treatment. For all SRN students who enter the program, SRN staff attempt to provide mental health services as needed. While some of the thirteen participants who left before the one year mark accessed mental health services, it was only for a brief period of time while in the program. However, conversely, some of the participants who likely needed such services, chose not to participate in them.

Sub-theme of theme two: Refusal to participate in mental health treatment. A subtheme of "Unresolved mental health issues and addiction" is that five of the six participants with known mental health issues (not including the participant with an intellectual disability), chose not to attend mental health therapy or drug rehabilitation treatment when offered by SRN. This number includes all of the participants who were using drugs and subsequently had to leave the program, as drug use is prohibited. The SRN staff member described trying to help Student 5 access mental health services,

> She graduated from high school. Went to [name of a community college], dropped out. She did not do well. Her mom had died six months prior to that so I think that was her trauma. She would refuse to go to mental health counseling… and her

> father is dying…So I've learned the hard way that I can't force someone to do that. Because then they go and they don't want to be there.

The staff member also described how many students in the program believed that talking to staff members was sufficient enough to address their mental health issues, and staff would frequently have to explain how they were not mental health professionals. While many students who participate in SRN do access mental health services, a common theme of those who leave prematurely is that they refuse. Therefore, it is likely that their history of trauma and mental health needs are still unresolved at the time of leaving.

Theme three: Derailed by the family. The third theme that emerged from the interview with the SRN staff member was that youth were derailed or taken off track from their goals, by their own families. As alluded to within the first two themes, all of the participants experienced some form of trauma within the context of their families. For three of the participants who left SRN before the one year mark, reported dysfunction within their families was perceived as having had a negative impact on their progress. The SRN staff member described this theme when discussing how Student 13 began to emotionally decline and use drugs after his mother was stabbed and then beaten by family members, on multiple occasions, while he was in SRN. His stepfather then refused to give him any details on the status of his mother. The SRN staff member reflected on Student 13,

> And it's like he had totally gotten off track. You know these people, these families, derail these kids in the end.

For Student 1, she had a history of involuntarily mental health institutionalization and frequent mobility within foster care. She was receiving intensive mental health treatment while in SRN, but decided to leave the supports of SRN to live with her father,

> She was one of those kids who had been in foster care almost her whole life and had been bounced so many times that… I think she had a picture of what being with her dad was going to be like… she is no longer with him and she is pregnant. And she's still a minor...

A similar situation occurred for Student 12 who after leaving SRN, her mother did not follow through with her commitment to allow the student to live with her. Student 12 began using drugs while away from SRN. While the setbacks look slightly different for each of these participants, the SRN staff member expressed that this is a common occurrence, as students in the program often seem to be derailed by their family members.

Theme four: Trust issues. The fourth theme that emerged from the interview with the SRN staff member was that participants who left the program early had difficulty trusting others, including SRN staff. The staff member spoke about four participants in particular who experienced the barrier of building trust in others within the program. Given the traumatic and transient histories of the participants, it was difficult for them to trust that staff had their best interests in mind and that they genuinely wanted to provide support, services, safety, and care for them. The trust issues experienced by the participants often made it difficult for them to completely buy-in, follow the rules, and take advantage of all of the supports and services afforded in the program.

Regarding Student 7 who had been sexually assaulted by a parent, the staff elaborated, "She had major, major, major, trust issues… She didn't even give her mentor a chance, which is unusual." The staff member often used the term "trust issues" when describing barriers for four of the participants who left SRN early. For Student 13, when he began having emotional

difficulties, the SRN staff member inquired about what was going on. The staff member described his reaction,

> So I came over and he's like "you're not going to care when I tell you what happened to me". And I'm like, 'how do you know? You haven't even given me the opportunity? And when he told me, I was like, "Not only do I care, but I'm sad and I'm appalled and I'm sad for you."

Student 13 explained to the staff member that his stepfather refused to explain the condition of his mother who was violently attacked. The staff member then took Student 13 to the hospital so that he could see the condition of his mother for himself. While the SRN staff member explained that trust issues were a barrier for four of the participants who left SRN early, she also indicated that this is a common barrier for most participants in the program.

Theme five: Benefitted while in the program. The fifth theme reflects that although participants left the program early, they still seemingly benefited while in the program, as they were able to receive resources that they may have never received outside of participation in SRN. This theme emerged as the SRN staff member described the many resources that all of the participants were able to access while in the program. The SRN staff member described benefits experienced by all of the participants, except for the three participants who were placed in a new housing location and were in the program for a short period of time. These three participants are described more in Theme Six. While immediate housing is the most obvious benefit for all of the participants, they also received additional supports. One of the benefits for participants who left early was access to mental health care while in the program. While the SRN staff member indicated that every student entering SRN is encouraged to access mental health services

afforded through the program, it is ultimately the choice of the student. The staff member reflected on Student 7's experience accessing Accelerated Resolution Therapy (ART),

> She was molested by her stepdad... He even prostituted her. And she went to [name of therapist]… five times and she said, "you come out of there and you are so physically drained". Which you are, like mentally and physically. And she said, "But you feel like you've gotten all of the yuck out of you". And that's a great way to describe it.

Seven of the participants who left SRN early accessed some form of mental health services, even if for a few sessions, such as Accelerated Resolution Therapy (ART), crisis center services, and/or targeted programs for sexual abuse and domestic violence.

Additional benefits were that five of the participants were able to graduate high school, two went on to attend college, and many accessed academic tutoring while enrolled in SRN. For Student 2 who likely had an intellectual disability, the staff member explained the supports provided while SRN staff were searching for a more suitable program for him to attend,

> We took him under the auspices that we were going to get his high school diploma… and then have like a plan for where he would go. So he wasn't going to be like our typical student, but he literally had nowhere to go. And so we were like, we're taking him…A lot of tutoring, and a lot of like, self-care in the home. He didn't even know how to properly shower, 'cause he's not your typical student that lives here.

For many of the participants, the staff member indicated how the program went "above and beyond" to try to ensure students received all of the necessary supports they needed. Through the mentoring program, caring staff, and other students in the program, these

participants were also able to access a support system that they did not have prior to the program. While participants accessed housing, mental health, academic tutoring, and support system resources while in SRN, there were a few participants who left early that had additional supports outside of the program.

For three participants who voluntarily left SRN prematurely, while they benefited while in the program, they also had additional outside supports that ultimately led them to feel as if they no longer needed the support of SRN. For Student 7, she earned significant college scholarship money with the help of SRN and also had the support of her boyfriend's family. She voluntarily left the program after being accepted into college. For Student 1, she decided to go live with her father and later became pregnant. For Student 3 he had services through extended foster care,

> So he actually graduated high school… and just recently finished a vocational training. And has asked to come back…So he was in extended foster care, so he really had his own ability to get money and get everything he needed to get to the next level. But I mean, he left on good terms. He just had trust issues.

For Students 1 and 3, although they seemingly had supports outside of SRN that led them to voluntarily leave the program early, they also reflect the next theme of asking to return to the program and experiencing setbacks when away from SRN.

Theme six: Setbacks and wanting to return to SRN. The sixth theme gleaned from the interview with an SRN staff member is that for five participants who left early, they experienced setbacks when away from the program. Setbacks when away from the program included teenage pregnancy (Student 1), drug use (Students 4 and 12), dropping out of high school (Student 8), and transferring to a high school that does not align with personal goals for the future (Student

13). The staff member explained that for Student 8, his older age of 20 likely played a large role in his difficulties in following rules in the program; however, he was at least enrolled in school when in SRN. The staff member explained,

> Oh, he got asked to leave. Yeah, and I do not believe he even graduated high school. He was actually 20 years old. He was on his last year to be in high school. He had dropped out for a long time because he was homeless, argued himself back into high school… He just couldn't follow a rule to save his life. He also kept going places we told him not to go and would bring bed bugs home, which is a major problem here…he definitely had depression. He did go to therapy maybe one or two times and refused to go back. Umm, and he was also a big drug person, which is not allowed. So we were having issues with that and he refused to go to rehab, which is why we asked him to leave.

Similar to Student 8, while all of the participants had experienced various setbacks and trauma throughout their lives, SRN seemed to provide a set of protective factors (i.e. housing, support system, structure, mental health care) that helped to mitigate stressors while in the program. However, when either voluntarily or involuntarily leaving the program, participants experienced amplified risk factors for homeless youth (i.e. academic failure, teen pregnancy, and drug use).

The aforementioned setbacks outside of SRN and supports provided through SRN is what the SRN staff member perceived led to three participants asking to return. For Student 3, although he was able to finish vocational training while away from SRN, when asked why he wanted to return to the program, the staff member stated, "He said he misses the family." For Students 4 and 8, they were not allowed to return due to continued drug use. When discussing Student 4 wanting to return, the staff member explained,

> So she called me hysterically crying saying, "Can I come back?" and I said, "Yes, but you need to be back today and a week went by. And she never came back…And then called and said she was coming back today, and walked in high…

The staff member further explained that students often leave because they are held accountable and have structure for the first time in their lives, and as a result they may want to leave. However, many soon realize the supports that they had through SRN are better than the alternative and will ask to return. The intervention will accept returning students, dependent on the circumstances. The staff member also believed that Student 13 would eventually ask to return as well for this particular reason.

Theme seven: Considerations for SRN moving forward. The last theme that emerged from the interview with an SRN staff member entailed the staff member's reflection of considerations regarding program expansion. For three of the participants (Students 9, 10, 11), they were all unique from the other participants who left SRN before the one year mark, because they were the first students enrolled in a new expansion of SRN, located on a campus within a different nearby county. However, all three participants left the program in less than three months and within days of each other. The SRN staff member reflected on how a lack of a sense of community and weak house management by staff likely contributed to the participants leaving,

> Those three were all new students from our [name of county] program. Which had an unsecure staff, not strong house management…Since then we've revamped, but they were the first three and I just think we weren't ready…I think part of the problem is that it's this huge facility that, you know, houses 50 kids. It's a

> campus, it's not a house. And the board made a decision, that I don't think was good, that we were only taking three kids. Well you have these three kids on this huge property, there's no community…I just think there wasn't community and that's just the bottom line.

The staff member further described how on the primary campus, there are many students, which allows for students to never be alone and to interact with each other. The new campus was more isolating with only three students on campus. Further, the staff member explained that the new housing staff did not adequately foster trust, support, and community in the house and had to be replaced. Given these setbacks, SRN revamped the new location to address these barriers. However, this reflection from the staff member indicated two important features of program expansion: continuing to foster a sense of community and a strong adult support system.

The other consideration that was mentioned in the interview was potentially addressing vicarious trauma for staff members. The staff member reflected on her own need for therapy,

> And the other thing is that I found, in a very funny way, that I needed to be in therapy. Because I was getting like really burdened and more so from the kids that leave or that we ask to leave. Because then I start questioning, you know, "Is there something we should of done? Could we have done something differently? Could I have been a better listener?" And so I started going through ART [Accelerated Resolution Therapy] and I called [name of therapist] and said, "You know, I think I need to do it, to get some of this off of my chest". And it definitely helps me.

The staff member explained how they did not want to ask the students to do anything they were not willing to do themselves. Given that staff often have to frequently hear and help address traumatic situations experienced by students, it is also possible that it may affect the mental well-

being of staff members. Therefore, moving forward, regarding program expansion, in addition to ensuring a sense of community and strong adult support for students, it may also be beneficial to consider addressing potential vicarious trauma experienced by staff.

In summary, from the perception of the SRN staff member, students who left SRN prematurely had histories riddled with trauma from sexual abuse to parental abandonment. Most students also had unresolved mental health issues and/or drug addiction; some also refused to attend treatment. Students who refused treatment for drug use were asked to leave SRN due to violation of policy. According to the SRN staff member, while most students had difficulty trusting other people, some students also experienced setbacks as a result of their own families' dysfunction. Familial dysfunction likely led to premature departure from SRN and for some increased mental health issues. For students that voluntarily or involuntarily left early, many experienced further setbacks while away from SRN (e.g. pregnancy or dropping out of school) and some eventually asked to return to the intervention. The SRN staff member reflected that even for students who left early, most experienced benefits while in the intervention, such as high school graduation and access to crisis mental health support. In regard to considerations for program expansion, the SRN staff member expressed the importance of continuing to provide a strong sense of community and adult support for students; as well as, potentially addressing vicarious trauma experienced by staff members. The next chapter will compare the quantitative and qualitative results of this chapter to existing literature, discuss implications for practice and research, as well as, review limitations of the current study.

Chapter V

Discussion

The current study examined the longitudinal impact of Starting Right, Now (SRN) on unaccompanied homeless youths' mental health (psychopathology symptoms), emotion regulation, and school engagement. It also examined potential differences in these variables between participants who persisted in SRN for at least one year and those who left early. An archival interview with an SRN staff member was analyzed to further explore the staff member's perception of why some participants leave or are dismissed from the intervention prematurely. The following discussion explores the findings of this study as they relate to the research questions, as well as in relation to existing research on UHY and interventions for homeless youth. Next, limitations, implications for research and practice, and directions for future research on this topic are discussed.

Impact of SRN on Participants' Mental Health

Depression, anxiety, and stress at point of entry (Time 1). The first research question in the study sought to determine participants' levels of depression, anxiety, and stress at the time of entry into SRN (Time 1). For the participants who completed the Depression, Anxiety, and Stress Scale-21 items (DASS-21) upon entering SRN, about 64% experienced an elevated level of depression and/or anxiety; and 54% experienced elevated levels of stress. Moreover, on the DASS-21 Depression scale, about 32% of participant scores fell in the Severe or Extremely Severe ranges, indicating scores well above the normative population mean. These severity levels also may indicate a need for clinical assistance. This percentage is much higher than the

approximate 13% of adolescents in the general population, aged 12 to 17, who have experienced a major depressive episode in the past year (Substance Abuse and Mental Health Services Administration, 2017). This number is commensurate with rates of depression found in literature, which ranged from 21% (Cauce et al., 2000) to 41% (Busen & Engebretson, 2008). Rates of depression in literature often varied depending on the specific characteristics of the population and the measurement of depression included in the study. Regarding symptoms of anxiety and stress observed in this study, about 32% and 23% of participant scores fell in the Severe or Extremely Severe ranges of DASS-21 Anxiety and Stress scores, respectively. For anxiety, this percentage is higher than the 15% to 20% of children and adolescents with an anxiety disorder in the general population (Kessler et al., 2012; Merikangas et al., 2010). This percentage is aligned with the prevalence rates of 8% to 34% for general anxiety, panic disorders, and PTSD found in studies of different homeless populations aged 18 to 24 (Bender et al., 2010; Bender et al., 2014; Merscham et al., 2009; Medalia et al., 2014.). Regarding stress, although the DASS-21 was not found to be used in studies with homeless youth, the mean score found in this study (M= 16.18) is much higher than the mean scores found among non-clinical samples of adults. However, the mean stress score of this study appears to be within the range found in clinical samples of adults researched in literature (Brown et al., 1997; Henry & Crawford, 2005).

The rates of elevated symptoms of depression, anxiety, and stress found among participants at Time 1 suggest that the unaccompanied homeless youth entering SRN may be particularly likely to present with mental health problems, as indexed by high psychopathology. This is consistent with previous research on participants of SRN that suggested they experience high levels of risk, such as sexual abuse, mental health issues, and housing instability (Raffaele Mendez et al., 2018). These findings are also consistent with the perception of the SRN staff

member interviewed as a part of this study, who reflected that many students who leave SRN prematurely have unresolved mental health issues and trauma. Traumatic experiences and stress of instability in housing often result in mental health disorders, like PTSD, depression, and anxiety (Bender et al., 2010). These results continue to add to the body of literature indicating that homeless youth experience higher rates of mental health problems than their housed peers (Kamieniecki, 2001; Slesnick & Prestopnik, 2005).

Impact of SRN on depression, anxiety, and stress. The fourth research question of the current study explored potential changes in participants' levels of depression, anxiety, and stress after six-months and one-year of participation in SRN. Results from the dependent sample *t*-tests indicated a significant decrease in depression (d= .69) and stress (d=.70) from Time 1 (entry into SRN) to Time 2 (six-months after entry), with moderate effect sizes. There were no significant changes in anxiety scores. Of note, previous research supports that the Anxiety and Stress subscales are highly correlated (Lee, 2019). Stress as measured by the DASS-21 assesses tension-stress symptoms such as irritability, tension, and difficulty relaxing, which often overlap with clinical symptoms of anxiety. Further factor analysis of the DASS-21 with this population may be warranted.

Despite these improvements in depression and stress during the first six months of intervention, available data for the half of the sample that persisted in the intervention and provided data at the one-year mark (Time 3), revealed increases in stress and depression that did not reach statistical significance between Time 2 and 3. However, these increases were associated with moderate effect sizes, making these results meaningful. The sample size of participants (N = 10) with complete data at Times 1, 2, and 3 (i.e., Sample B) was likely not large enough to provide the precision needed to detect a statistically significant effect. Of note, the

trend in DASS-21 subscales reflected decreases from Time 1 to 3 in Sample B, although this decrease was also not statistically significant and yielded smaller effect sizes. Findings from the qualitative results suggest that levels of psychopathology may increase between the six-month and one-year mark because (a) participants become more involved in components of SRN that provide structure and accountability for duties that they have not previously had (i.e. attending school, therapy, SRN events), and/or (b) participants transitioning to college may have also experienced additional life stressors and changing circumstances.

The findings that SRN is associated with a short-term decrease in participants' depression and stress after six months of participation aligns with previous research conducted on SRN that found that participants perceived that they had been lifted to higher educational and personal levels through obtainment of resources; support systems; renewed trust in adults; increased hope; improved mental health; and a heightened sense of community (Randle, 2016). Esposito (2018) also found that after six months in SRN, participants experienced significant increases in life satisfaction and hope agency. The findings of the current study and that of Esposito (2018), also align with previous research by Ferguson and Xie (2007), who found that after ten months of participation in the Social Enterprise Intervention, another multicomponent intervention, participants experienced decreases in depression and increases in life satisfaction compared to treatment as usual. The dual factor model of mental health supports the emphasis on understanding both psychopathology and well-being to best predict youth outcomes (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Taken together, these findings suggest that soon upon entry into the program, SRN's services may be decreasing participants' psychopathology and increasing life satisfaction through providing comprehensive services to meet participants' physical, emotional, and academic needs. Further, results of this study revealed a promising

trend of an overall decrease in psychopathology from entry into SRN to one-year of participation. Although this decrease was not statistically significant in the modest sample of 10 participants, it is hypothesized that a larger sample may yield a significant result. Additionally, collecting survey data after 12 months may also help to provide insight into whether the peak impact of SRN on participants' psychopathology occurs after the one-year mark.

Impact of SRN on Participants' Emotion Regulation

Cognitive reappraisal and emotional suppression at point of entry (Time 1). The second research question of the current study sought to determine participants' use of the emotion regulation strategies of expressive suppression and cognitive reappraisal at Time 1. Average scores on the Emotion Requestion Questionnaire (ERQ) range from 1 to 7 with a score of 1.00 indicating a participant strongly disagreed with endorsing use of the strategy and a score of 7.00 indicating a participant strongly agreed to using the strategy. For the participants who completed the ERQ at Time 1 or upon entering SRN, the mean Expressive Suppression score *(M*= 4.69) fell slightly above the Neutral score of 4.00 and the mean Cognitive Reappraisal score *(M*= 5.17) fell between the Neutral and Strongly Agree descriptors. The ERQ has not been used often in studies of emotion regulation in the adolescent population. However, in a sample of undergraduate students, Gross and John (2003) found that men (*M*=3.64, *SD*= 1.11) scored significantly higher than females (*M*=3.14, *SD*=1.18) on expressive suppression. They also found that a minority ethnic group status was associated with greater use of suppression. The majority of the sample in this study were females (72.9%) and identified as Black/African American (43.9%). The mean expressive suppression score of this study was higher than both aforementioned means reported by Gross and John (2003). This may suggest that UHY entering SRN have increased use of expressive suppression, which is aligned with previous research on

SRN participants (Raffaele Mendez et al., 2018). Regarding cognitive reappraisal, Gross and John (2003) found no consistent differences between gender or ethnic groups. Men had a mean of 4.60 (*SD*=.94) and women had a mean of 4.61 (*SD*=1.02), both of which are lower than the results in the current study. This may suggest that UHY entering SRN are using average or more cognitive reappraisal strategies than expected, but further research is needed to support this claim. To date, there were no published studies found that used the ERQ with homeless youth. Of note, expressive suppression as defined by the ERQ reflects that this strategy is *maladaptive* for youth. However, it may be that for UHY and street-involved youth, being cautious of expressing emotions may serve as an adaptive, short-term, protective mechanism, such as to prevent abuse while on the streets or involvement from child protection agencies (Li et al., 2017). Therefore, these results provide a foundation for understanding UHY's presenting emotion regulation. However, further investigation is needed to support whether UHY experience higher rates of expressive suppression and cognitive reappraisal than found in the general adolescent population, as well as whether expressive suppression may actually be an adaptive short-term skill for this vulnerable population.

Impact of SRN on cognitive reappraisal and emotional suppression. The fifth research question of the current study explored potential changes in participants' use of the emotion regulation strategies of expressive suppression and cognitive reappraisal after six-months and a year of participation in SRN. Results from dependent sample *t*-tests indicated no significant change in cognitive reappraisal or expressive suppression between any timepoints. However, there was a trend for reduced levels of expressive suppression from Time 1 to Time 2, with a moderate effect size (*d*= .64).

These findings that SRN may not be associated with significant changes in cognitive reappraisal (an adaptive strategy) and expressive suppression (a maladaptive strategy) cannot be directly compared to previous research, as the current study is the first to investigate the impact of a comprehensive intervention for UHY on these specific strategies. Of note, due to a lack of definitive construct definitions (Compas et al., 2017, Gross & Thompson, 2007), emotion regulation and coping strategies are often discussed interchangeably in literature. Regarding coping strategies, Esposito (2018) also found no significant changes in maladaptive or adaptive coping associated with participation in SRN. Further, Slesnick and colleagues (2007) found that the Community Reinforcement Approach for homeless youth did not significantly impact participants' use of coping strategies. In contrast, in a qualitative study examining the impact of SRN on participants' lives, one of the themes entitled "Better Ways to Deal" reflected that participants learned how to identify their maladaptive coping mechanisms (e.g. over-eating, anger outbursts, and emotional suppression) and learn more adaptive coping mechanisms (e.g. exercise, consequential thinking, communication skills, and self-care; Randle, 2016). It may be the sample size in the current study was too small to detect significant changes, or that within the first year youth are still learning about identifying maladaptive and adaptive coping strategies through SRN trainings. Therefore, after one year, participants may not have not yet applied learned skills to their life. In all, these results suggest that it may be particularly difficult to have large positive impact on participants' coping and emotion regulation strategies within a year of participation in SRN.

Impact of SRN on Participants' School Engagement

Behavioral, cognitive, and emotional school engagement at point of entry (Time 1). The third research question of the current study sought to determine participants' levels of behavioral, cognitive, and emotional school engagement at Time 1, as measured on the School Engagement Scale (SES). Average scores range from 1 to 5, with higher scores indicating greater school engagement. On the SES, the mean scores were as follows: Total Engagement (*M*= 3.36, *SD*= .68), Behavioral Engagement *(M*= 4.03, *SD*=.63), Cognitive Engagement *(M*=2.84*, SD*= .88) and Emotional Engagement *(M*= 3.35*, SD*= .91). The SES has not been used in prior research to assess emotion regulation in adolescent or homeless youth populations. However, Fredericks and colleagues (2004) developed the measure with fourth and fifth graders and found mean scores as follows: Behavioral Engagement 4.00 (*SD*=.76), Emotional Engagement 3.76 (*SD*= .85), and Cognitive Engagement 3.49 (*SD*=.79). Total Engagement was not calculated. Comparatively, behavioral engagement appeared similar between studies, while emotional and cognitive engagement appeared slightly lower in the current study which may be due to differences in sample age or risk status. These results provide a foundation for understanding UHY's presenting school engagement. Further investigation is needed to support whether any meaningful differences in school engagement exist between UHY and housed peers.

Impact of SRN on behavioral, cognitive, and emotional school engagement. The sixth research question of the current study explored potential changes in participants' total, behavioral, cognitive, and emotional school engagement after six-months and a year of participation in SRN. Results from dependent sample *t*-tests indicated no significant change in scores from Time 1 to Time 2, but a large (*d*= 1.07) statistically significant *decrease* in

Behavioral Engagement from Time 2 to Time 3. There were no significant differences in Total, Emotional, or Cognitive Engagement from Time 2 to 3, or Time 1 to 3.

These findings cannot be directly compared to previous research, as the current study is the first to investigate the impact of a comprehensive intervention for UHY on these specific areas of school engagement. However, the finding that participants' behavioral engagement significantly decreased from Time 2 to Time 3 may reflect that some participants transitioned to college during that time. When transitioning to college, SRN students may no longer live on a SRN campus that provides adult supervision and a support system that may foster behavioral engagement in school. The findings that SRN may not be associated with changes in any other areas of school engagement across the timepoints may have multiple possible explanations beyond an unpowered study. For instance, Randle (2016) found that the overarching theme among participants in SRN was that they described how SRN gave them a better life quality and moved them to a higher personal and educational level. It may be that SRN does not impact the discrete in-class behaviors assessed with the SES, but that participants benefit from the resources and supports that allow them to graduate from high school and/or attend college. Educational attainment while in SRN is also reflected in the qualitative results of the current study. Further, the SES was normed on elementary school students (Fredericks et al., 2004), it may be that the school engagement items included in the measure may not be specifically applicable and/or sensitive to change over late adolescence to young adulthood.

Insight Into Participants Who Leave SRN Prematurely

Youth admitted into SRN are offered comprehensive supports as long as needed, with an expectation that they will remain enrolled in the intervention for at least one year and desirably through their college years to continue to provide needed supports. The seventh research

question of this study explored whether there were features of youth when they entered the program (i.e., elevated baseline levels of depression, stress, and anxiety; lower emotion regulation or school engagement) that may help predict which students are more likely to persist in SRN vs. leave the intervention before the year mark. Results from independent sample *t*-tests revealed that there were no significant differences in these variables between a group of 32 participants who persisted in SRN for 12 months or more and 20 participants who left the program before the one year mark. To the best of this author's knowledge, this is the first study to assess for differences in mental health, emotion regulation, and school engagement between UHY that drop out early and those that persist in a comprehensive homeless intervention for youth, precluding a direct integration with prior research.

Results of the comparisons in the current study should be interpreted with caution, given the modest sample sizes of the groups. However, it may also be that other variables, such as experiences of Adverse Childhood Events (ACEs) may differentiate participants who drop out from those that remain in the study. In a qualitative component of this study, a SRN staff member was interviewed in order to more fully consider the experiences of students in SRN including those who left early. The SRN staff member indicated that most students who enter SRN have experienced ACEs or other traumatic events that occur in youth that increase one's risk for negative mental health, physical, economic, and interpersonal outcomes (Centers for Disease Control and Prevention, 2019). The staff member described that several students who left the intervention prematurely after having had recently experienced a traumatic event, either right before entering or during participation in SRN. This and other factors not assessed through the quantitative measures of this study that could account for students leaving SRN early are described in the next section.

Qualitative results. In order to explore the preliminary finding that some participants were leaving SRN prematurely, the last research question was developed in order to discover what an interview with an SRN staff member revealed about why students leave or are dismissed from SRN. The staff member was asked about 13 participants who had left SRN early. Thematic analysis of the interview revealed seven themes pertaining to this question from the perception of the SRN staff member. The following themes reflect the various risk factors faced by UHY who leave SRN early, as well as some potential protective factors afforded through the intervention (i.e., a sense of community) that may help to foster retention for youth.

The first two themes reflected that from the viewpoint of the SRN staff member, all of the participants who left early experienced a history of trauma (theme 1) and in turn, many participants had unresolved mental health issues and drug addiction (theme 2). Some of whom refused to participate in mental health or drug rehabilitation treatment (sub-theme of theme 2). Per the SRN staff member, nearly *all* of the students who enter SRN have experienced some form of trauma (e.g., sexual abuse, death of a parent, and/or parental neglect) and mental health challenges (e.g. depression and/or suicidal ideation), which may also account for the insignificant differences in mental health, emotion regulation, and school engagement between those who leave and stay in SRN. The themes of participants experiencing trauma, drug use, and refusal of treatment may also explain the increased levels of psychopathology experienced by UHY entering SRN in this study. These themes are consistent with previous qualitative research with participants of SRN that revealed histories of physical, sexual, and/or emotional abuse; suppression of the abuse; unmet basic needs; and housing instability. These themes are also consistent with literature indicating homeless youth endure higher rates of trauma prior to and during homelessness that negatively impacts mental health. For example, Stewart et al. (2004)

found that 83% of homeless youth report experiencing a form of victimization, and an estimated 39% to 70% of homeless youth abuse drugs or alcohol (Baer et al., 2004). In the current study, of the four participants who left early due to continued prohibited drug use, three had experienced a known recent trauma. This study is the first to posit participant drug use and refusal to attend treatment as barriers to retention in SRN. Findings also add to the existing literature on SRN by highlighting the connection between experiencing a *recent* trauma when in SRN and leaving the intervention early. While many students who participate in SRN choose to access mental health services, refusal of such treatment is common among those who leave prematurely. Randle (2016) also found that SRN participants expressed difficulty transitioning from premature adulthood back into adolescence, where there were more rules (i.e. prohibited drug use), expectations, and structure than they may have had before. Therefore, it may be that youth who leave SRN early due to prohibited drug use and/or who refuse mental health treatment may also be experiencing difficulty with the newfound accountability, structure, and expectations placed upon them when participating in the intervention.

The third theme that emerged out of the interview with the SRN staff member was that for some participants who left early, dysfunction within their families was perceived as having had a negative impact on their progress. Closely connected to the previous themes, the SRN staff member explained how familial dysfunction, such as broken parental promises regarding permanent housing and continued domestic abuse of a mother, resulted in significant emotional declines and drug use. Randle (2016) also found that participants in SRN expressed difficulty transitioning away from families and felt overwhelmed about having to care for family members. The extent to which the dysfunction within families continues to impact students' mental health while in SRN may warrant further investigation. It may be that youth who leave SRN early

experience a heightened negative impact of familial dysfunction compared to youth who remain in the intervention. However, familial dysfunction may still negatively impact youths' psychopathology who remain in SRN, which may also contribute to the trend of an increase in psychopathology from six to 12 months of participation. This theme of being derailed by one's family may reflect an important treatment target when participants enter SRN.

The fourth theme from the interview was that participants who left early had difficulty trusting others, including SRN staff. From the perspective of the SRN staff member, given the often traumatic and tumultuous histories of all participants in SRN, most have difficulties with attachment and trust that often make it difficult for them to completely buy-in, follow the rules, and take advantage of all of the supports and services afforded in the program. This conclusion from the SRN staff member is aligned with Randle's (2016) finding that SRN participants had to learn to trust people again. Participants in that study described how when they first entered SRN they questioned the intentions of SRN staff and mentors. However, in that study, participants expressed that as adults proved themselves to be trustworthy, they learned how to trust SRN staff, mentors, and/or other adults outside of the program. Previous research also suggests that homeless youth learn to rely on peers as a source of support, in the absence of an adult presence (Bao, et al., 2000) and that a lack of trust in formal adult professionals is not uncommon (De Rosa, et al., 1999; Kidd, 2003). For youth who leave SRN prematurely, they may not have fully connected with a trusting adult support system, which may have served as a risk factor for attrition (Dang & Miller, 2013; Randle, 2016).

The fifth theme that emerged out of the interview with the SRN staff member is the idea that the majority of participants that left SRN experienced benefits while in the intervention that they may not have received otherwise. Such benefits include educational attainment and access

to crisis mental health resources, even if for a few sessions. This finding may also explain the significant decrease in depression, stress, and expressive suppression found in the current study, after just six months of participation in SRN. It may also explain the promising trend of a decrease in psychopathology from point of entry into SRN to the one-year mark. Randle (2016) also found that participants in SRN described that since entering the intervention they spent less time worrying about meeting basic needs, which gave them more time to focus on self-development (e.g. education, extra-curricular activities, and mental health treatment). This finding is consistent with the goal of SRN which is to provide comprehensive services to homeless youth. For three participants who voluntarily left SRN prematurely, the SRN staff member perceived that although they benefited while in the program, they had expressed having additional outside supports and not needing services afforded through the intervention. However, as described in the next theme, two of these three asked to return to the intervention.

The sixth theme that emerged from the interview with an SRN staff member is that almost half of the thirteen participants experienced setbacks and hardships when voluntarily or involuntarily away from SRN. According to the SRN staff member, risk factors amplified for youth when away from SRN and included pregnancy, drug use, dropping out of school, and making poor educational placement decisions. After experiencing such hardships, three participants asked to return, which is sometimes permitted dependent on the circumstances around the student leaving. The staff member explained that for many students, they want to leave SRN because they are held accountable for the first time in their lives, but many ask to return when they realize the supports in SRN are better than other available alternatives. This finding that youth also experienced increased hardships after voluntarily or involuntarily leaving SRN not only provides new insight into the experiences of UHY when away from the

intervention, but also lends support to previous research that SRN reduces risk factors for youth who remain in the intervention (Esposito, 2018; Randle, 2016). As described previously, Randle (2016) also found that youth experience difficulty adjusting to the rules, expectations, and structure of SRN. Difficulties and setbacks are not only age normative, but they are common for those youth who are exiting homelessness. In a qualitative study by Thompson, Pollio, Eyrich, Bradbury and North (2004), researchers found that homeless youth who eventually attained stable housing experienced challenges along the way, such as difficulties in employment, mental health, personal motivation, and relationships with family/friends and service providers. However, both Randle (2016) and Thompson and colleagues (2004) found that social support, like the assistance provided by SRN staff and mentors, may help mitigate the potential negative impact of challenges faced by homeless youth. This is likely why the SRN staff member indicated in the interview that participants are often allowed to return to SRN after leaving. It may be important to directly address and intervene on these known challenges for UHY in order to help foster retention.

The seventh and last theme that emerged from the interview entailed the staff member's reflections on program expansion. It was reflected that three participants who were among the first enrolled on a new SRN campus, left early likely due to a lack of a sense of community and weak house management by staff. These results lend support to existing research reflecting the importance of mentorship and social support for homeless youth (Bartle-Haring et al., 2012; Dang et al., 2014; Dang & Miller, 2013; Randle, 2016). Also included in this theme is the staff member's reflection on the benefits of accessing mental health supports to address both personal trauma and vicarious trauma experienced while working at SRN. Vicarious trauma among service providers documented in prior research (e.g., Lawson & Myers, 2011; Pearlman and

Saakvitne, 1995) with a prevalence rate of about 46% among counselors (Dunkly & Whelan, 2006). Vicarious trauma can occur when service providers, like counselors, engage with persons who have been traumatized and in turn experience a disruption within the service provider's view of their self-competence, trust of others, and the world as a safe place (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995; Williams et al., 2012). Untreated vicarious trauma can lead to rigidity in beliefs, cynicism, withdrawal, anxiety, and depression (Pearlman & Saakvitne, 1995; Saakvitne & Pearlman, 1996). Therefore, when expanding, SRN should consider ensuring the continuity of a strong adult support system and sense of community for the students, but also consider addressing the potential mental health needs of staff who work closely with this vulnerable population.

Summary of Findings

Youth who enter SRN arrive with particularly high levels of internalizing forms of psychopathology; nearly one-third of participants in this study had severely elevated levels of anxiety or depression. The receipt of protective factors afforded through SRN, such as stable housing, mentorship, and counseling, was accompanied by decreases in depression and stress during the first sixth months of intervention. While other youth outcomes, such as anxiety, emotion regulation, and school engagement did not show significant changes over time, all results, except for emotional school engagement, showed a trend in the hypothesized direction from point of entry into SRN (Time 1) to six months of participation in the intervention (Time 2). However, from six to twelve months of intervention, the improvements in mental health appear to cease, and behavioral school engagement actually decreased although changes in that outcome may reflect barriers to transitioning to college. Attempts to understand features of youth who left SRN prematurely did not reveal notable baseline levels of mental health challenges,

emotion regulation, or student engagement. However, themes from the perspective of a seasoned SRN staff member provided insight into why some students may leave early. In particular, participants who left early had a history of recent trauma, mental illness, drug addiction, refusal of mental health treatment, trust issues, and familial dysfunction. However, youth appear to gain multiple benefits during their time in the intervention, and many who leave prematurely experience setbacks when away from the intervention. Fostering a sense of community on SRN campuses is likely critical to intervention success, including by ensuring a strong adult support system on campus and addressing potential vicarious trauma for staff.

This study and other studies on SRN (Esposito, 2018; Randle, 2016) have collectively explored the impact of SRN on the mental health of homeless youth from a dual factor framework which emphasizes understanding both psychopathology and well-being to best predict outcomes (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Taken together, results of this study have supported improvements in mental health from the point of entry to six months later, and suggested considerations for long-term supports (i.e., after six months) that may be critical for ensuring a continued positive impact of SRN on unaccompanied homeless youth.

Limitations

There are several limitations of the current study. The first limitation is in regard to internal validity. A control group was not utilized in this study; thus, the design is not experimental, and causal relationships between SRN and outcomes cannot be identified. Control group data could not be collected due to the lack of access to students who applied to SRN and were not admitted. Additionally, specific components of SRN that may impact outcomes cannot be identified because the intervention was examined as an entire package without consideration

of which youth participants received which support. An additional limitation regarding internal validity, is that it was unknown if any participants in the "Left the Intervention" group in Sample C, may have returned to SRN after the 12-month mark. Although this is not a common practice, some participants are allowed to return to the intervention depending on the circumstances (SRN staff member, personal communication, March 8, 2021). Therefore, it is possible that some participants in the "Left the Intervention" group may not permanently be a part of this group, possibly affecting comparisons between the "Left the Intervention" group and the "Still Enrolled" group.

Another limitation to the study is that all participants did not enter SRN at the same time due to ongoing enrollment processes. Therefore, data collection between the three time points overlapped (e.g., data from Time 2 overlapped with data from Time 1, and data from Time 3 overlapped with data from Time 2). Overlapping data does not account for the possibility that the time of year UHY enter SRN may impact their experience in the program. For example, students who enter SRN within their senior year of high school and transition into college may have had different experiences with services afforded through the intervention than those participants who entered in their freshman through junior year of high school.

The next limitation to this study are the small sample sizes (n= 19 for Sample A; n=10 for Sample B) that limited power in the current study and made it hard to detect statistically significant, small to moderate effects of SRN on mental health, emotion regulation, and school engagement outcomes. Additionally, due to the small sample size and uniqueness of SRN, external validity is limited. Results of the study may not generalize to other unaccompanied homeless adolescents and comprehensive multifaceted programs. In particular, given that the SRN director selects UHY for SRN based on their potential to be successful in the intervention,

the participants in the current study may not be representative of the general population of UHY. Additionally, only students interested in participating in the study after receiving the recruitment flyer called the principal investigator to give consent; therefore, it is unknown exactly what percent of students entering SRN participated in the study. Given the unknown participation rate in the study and the small sample size, it is plausible that the results of the study may also not generalize to other UHY who participate in SRN or other programs for UHY.

Regarding the qualitative data collected and examined in the current study, the dataset is limited by the design of only one interview with pre-determined interview questions (i.e., information restricted to participants who were no longer in SRN, and reflections prompted on potential implications for program modification). Lastly, an inherent limitation to an exploratory sequential mixed methods design is that more weight is given to the collection and analysis of quantitative data to address the research questions. While I believe that the quantitative data collection and analysis is appropriate to address the research questions, it is possible that more in depth qualitative data collection could have resulted in a more rich understanding of mental health, emotion regulation, and school engagement among UHY in Starting Right, Now.

Implications for Research and Practice

Despite limitations, this study has several implications for research and practice. To date, two studies that have formally examined the impact of SRN. The first was a qualitative study that analyzed interviews in order to determine the ways in which unaccompanied adolescents in SRN perceived their lives as having changed since entering the program (Randle, 2016). Results indicated overall participant themes related to an improvement in quality of life, including personal and educational areas. The second study by Esposito (2018) utilized the data set included in this study to examine the impact of SRN on students' life satisfaction, hope, and

coping strategies over a year time period. Results of that study indicated statistically significant increases in indicators of well-being, specifically life satisfaction and hope, after six months of participation in SRN. The current study continues to add to this literature base by expanding understanding of the impact of SRN on indicators of psychopathology (i.e. anxiety, depression, and stress), emotion regulation, and school engagement. This study also expands literature on prevalence rates of these variables among UHY and begins to provide insight into why some students leave the intervention prematurely. SRN continues to be one of the only multifaceted, holistic interventions in the country for unaccompanied adolescents; therefore, results also add to the literature positing that the traditional model of service delivery may not address the variety of risk factors and barriers faced by this population of adolescents (Esposito, 2018; Ferguson & Xie, 2008; Randle, 2016). Unfortunately, UHY continues to be an understudied population (Moore, 2005). The current study also contributes to this limited body of literature.

The current study also has several implications for practitioners, including school mental health providers such as social workers and school psychologists, who work with unaccompanied homeless youth in schools and in the Starting Right, Now intervention. Given SRN was found to significantly decrease aspects of psychopathology in the current study and improve aspects of participants' well-being (Esposito, 2018), practitioners' knowledge base of how to support UHY can be expanded. Results of this study, in conjunction with results from Esposito (2018), support the importance of specifically targeting school engagement and emotion regulation/coping skills of UHY, as these areas may not be as sensitive to change through comprehensive service delivery (Esposito, 2018; Slesnick et al., 2007). Practitioners can work to collaborate with school personnel and community-based organizations to implement a comprehensive system of care for UHY in their own communities. Specifically, UHY may

benefit from supports and intervention that focus on all aspects of youths' lives in order to improve their well-being and decrease psychopathology. Improvement in well-being and psychopathology may be particularly important for this vulnerable population (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008; Suldo et al., 2016). For example, Suldo and colleagues found that youth with minimal symptoms of psychopathology and many indicators of well-being had better perceived academic, health, and social outcomes.

Further, practitioners and service providers supporting youth in SRN may also consider providing additional or more targeted mental health and educational supports to youth participating in SRN, particularly between six and 12 months of participation in the intervention. Findings of this study revealed that during this period, participants' improvements in mental health appeared to cease, and behavioral school engagement actually decreased. Given that many youth entering SRN are in their senior year of high school, practitioners may want to provide more intensive and individualized support to these students in navigating and coping with barriers and stressors associated with transitioning to college or employment after graduation. Further, based on the qualitative results of this study, practitioners may also consider addressing homeless youths' potential trauma, mental health issues, drug use, willingness to attend therapy, and familial dysfunction, as these may serve as barriers to continued participation in SRN or other comprehensive programs. Based on insight provided by the SRN staff member in this study, it possible that practitioners working with this population may experience vicarious trauma. Therefore, it is important for practitioners to continue to monitor their own mental health and well-being, and to seek mental health supports as needed (Lawson & Myers, 2011; Pearlman and Saakvitne, 1995). Overall, the current study supports the need for continued referral to the Starting Right, Now program, as well as program expansion.

Summary and Future Directions

The current study has contributed to the literature by providing examination of the longitudinal impact of Starting Right, Now on participants' mental health, emotion regulation, and school engagement. The current study is also the first to provide mixed method analysis to explore premature attrition from SRN. Results of this study have added to the limited body of research on efficacious interventions for UHY. The results of this study indicate that participation in SRN was associated with decreases in depression and stress after six months of participation in the intervention. Participation in SRN was also associated with decreases in behavioral school engagement between six months to a year in SRN. There were no significant changes between timepoints for anxiety, emotion regulation, or other dimensions of school engagement. Levels of psychopathology, student engagement, and emotion regulation at time of entry into SRN did not differentiate participants who leave SRN prematurely from those who stay for at least a year. Insight from analysis of an interview with an SRN staff member revealed that many youth who left the intervention early had personal histories significant for recent trauma, trust issues, mental health problems, refusal to access mental health treatment, and familial dysfunction.

These findings support previous research on SRN that suggested that participation in SRN improved participants' life satisfaction, hope, and moved them to higher personal and educational levels (Esposito, 2018; Randle, 2016). Findings of this study also lend support to the importance of addressing both psychopathology and well-being among UHY through comprehensive service delivery (Esposito, 2016; Suldo & Shaffer, 2008; Suldo et al., 2016).

In order to gain a better understanding of the impact of SRN on mental health, well-being, school engagement, and emotion regulation, future research should aim to explore these

factors with a larger sample of participants. Additional measures may be considered to assess these variables, such as broadband measures of mental health and/or behavior, like the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015). Measures chosen should be psychometrically sound and well researched with this age group. Further, other variables, such as ACEs, motivation, and drug use that may account for early attrition from SRN should be explored. Future mixed-method research on attrition may also include interviews with youth who voluntarily or involuntary leave SRN early. Given results of this study and Esposito's (2018) study revealed changes in psychopathology and well-being only after six months of participation, future research may be enhanced through more frequent data collection. This may allow future researchers to determine trends over time and determine when SRN has a peak impact on participants.

Another goal of future research should be to analyze which intervention components of SRN (i.e. housing, mentorship, mental health services, academic tutoring, etc.) have the greatest positive impact on participants and may serve as protective factors for youth. For example, it is unknown whether specific emotion regulation, coping, and school engagement strategies are taught to youth through access to mental health services or through ongoing personal and professional development trainings. Further, it may be important to group students by time of entry into the program in order to help control for exposure to certain intervention components. This future research would help to determine whether there are specific components of SRN that impact unaccompanied homeless youth's mental health, school engagement, and well-being. Currently, research supports that the intervention on the whole is associated with improved mental health from the point of entry into SRN to the six months-in-intervention mark. This is

particularly important given the elevated rates of psychopathology that UHY are likely to be characterized with at the point of entry into SRN.

References

Achenbach, T. M. (1991). *Manual for the child behavior checklist/4-18 and 1991 profile*. Dept. of Psychiatry, University of Vermont.

Altena, A. M., Beijersbergen, M. D., & Wolf, J. R. (2014). Homeless youth's experiences with shelter and community care services: Differences between service types and the relationship to overall service quality. *Children And Youth Services Review*, 195. doi:10.1016/j.childyouth.2014.08.019

Altena, A. M., Brilleslijper-Kater, S. N., & Wolf, J. L. (2010). Effective interventions for homeless youth: a systematic review. *American Journal of Preventive Medicine*, *38*(6), 637–645.

Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research*, *64*(2), 287–309.

Antaramian, S. P., Huebner, E. S., Hills, K. J., & Valois, R. F. (2010). A dual-factor model of mental health: Toward a more comprehensive understanding of youth functioning. *American Journal of Orthopsychiatry, 80*, 462-472.

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-Item and 21-Item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, (2). 176.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school:

Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, *45*(5), 369-386.

Archambault, I., Janosz, M., Morizot, J., & Pagani, L. (2009). Adolescent behavioral, affective, and cognitive engagement in school: Relationship to dropout. *Journal of School Health*, *79*(9), 408-415.

Aub, J., Fichman, L., Saltaris, C., & Koestner, R. (2000). Gender differences in adolescent depressive symptomatology: Towards an integrated social-developmental model. *Journal of Social & Clinical Psychology*, *19*(3), 297.

Baer, J. S., Peterson, P. L., & Wells, E. A. (2004). Rationale and design of a brief substance use intervention for homeless adolescents. *Addiction Research & Theory, 12*(4), 317–334.

Baker, F. & Intagliata, J. (1982) Quality of life in the evaluation of community support systems. *Evaluation and Programme Planning*, 5, 69-79.

Baker, A. J., McKay, M. M., Lynn, C. J., Schlange, H., & Auville, A. (2003). Recidivism at a shelter for adolescents: First-time versus repeat runaways. *Social Work Research*, *27*(2), 84-93.

Barman-Adhikari, A., Petering, R., Lengnick-Hall, R., Rice, E., Rhoades, H., & McCune, S. (2016). Social context of service use among homeless youth in Los Angeles, California. *Journal of Social Service Research*, *4*, 501.

Barr, N., Fulginiti, A., Rhoades, H., & Rice, E. (2017). Can better emotion regulation protect against suicidality in traumatized homeless youth?. *Archives Of Suicide Research*, (3), 490.

Bartle-Haring, S., Slesnick, N., Collins, J., Erdem, G., & Buettner, C. (2012). The utility of

mentoring homeless adolescents: A pilot study. *American Journal Of Drug And Alcohol Abuse*, (4), 350.

Bartlett, M., Copeman, A., Golin, J., Miller, D., & Needle, E. (2004). Unlocking the potential of homeless older adolescents: Factors influencing client success in four New England transitional living programs. *https://youthcatalytics.org/wp-content/uploads/ 2012/ 07/TLPReport_ Unlocking_final.pdf.*

Bao, W., Whitbeck, L. B., & Hoyt, D. R. (2000). Abuse, support, and depression among homeless and runaway adolescents. *Journal Of Health And Social Behavior*, *41*(4), 408-420.

Bender, K., Brown, S. M., Begun, S., Barman-Adhikari, A., & Ferguson, K. (2016). Coping styles associated with victimization profiles among homeless youth. *Families in society*, (3). 171.

Bender, K., Ferguson, K., Thompson, S., Komlo, C., & Pollio, D. (2010). Factors associated with trauma and posttraumatic stress disorder among homeless youth in three U.S. cities: The importance of transience. *Journal Of Traumatic Stress*, *23*(1), 161-168.

Bender, K., Ferguson, K., Thompson, S., & Langenderfer, L. (2014). Mental health correlates of victimization classes among homeless youth. *Child Abuse & Neglect*, *38*(10), 1628–1635.

Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs*, *33*(12), 2106-2115.

Bevan, M. (2014). A Method of Phenomenological Interviewing. *Qualitative Health Research*, *24*(1), 136-144.

Bradley, J. (1997). *Runaway youth: Stress, social support, and adjustment.* New York: Garland.

Brandão, T., Schulz, M. S., Gross, J. J., & Matos, P. M. (2017). The emotion regulation questionnaire in women with cancer: A psychometric evaluation and an item response theory analysis. *Psycho-Oncology*, *26*(10), 1647-1653.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research In Psychology*, *3*(2), 77.

Brody, G. H., & Flor, D. L. (1998). Maternal resources, parenting practices, and child competence in rural, single-parent African American families. *Child Development*, *69*(3), 803-816.

Brown, S. M., Begun, S., Bender, K., Ferguson, K. M., & Thompson, S. J. (2015). An exploratory factor analysis of coping styles and relationship to depression among a sample of homeless youth. *Community Mental Health Journal*, (7), 818.

Brown, T. A., Chorpita, B. F., Korotitsch, W., & Barlow, D. H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. *Behaviour Research and Therapy*, *35*(1), 79–89.

Brown, R., & Evans, W. P. (2002). Extracurricular activity and ethnicity: Creating greater school connection among diverse student populations. *Urban Education*, *37*(1), 41-58.

Busen, N. H., & Engebretson, J. C. (2008). Facilitating risk reduction among homeless and street-involved youth. *Journal of the American Academy of Nurse Practitioners*, *20*(11), 567-575.

Carter, R., Silverman, W. K., & Jaccard, J. (2011). Sex variations in youth anxiety symptoms: Effects of pubertal development and gender role orientation. *Journal of Clinical Child and Adolescent Psychology : The Official Journal for the Society of Clinical Child and*

Adolescent Psychology, American Psychological Association, Division 53, *40*(5), 730–741.

Carthy, T., Horesh, N., Apter, A., Edge, M. D., & Gross, J. J. (2010). Emotional reactivity and cognitive regulation in anxious children. *Behaviour Research and Therapy*, 48, 384–393.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of personality and social psychology*, *56*(2), 267–283.

Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H., McClay, J., Mill, J., Martin, J., Braithwaite, A., & Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. *Science*, *301*(5631), 386-389.

Catanzaro, S. J., & Mearns, J. (1990). Measuring generalized expectancies for negative mood regulation: Initial scale development and implications. *Journal of Personality Assessment, 54,* 546-563.

Cauce, A. M. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal Of Emotional & Behavioral Disorders*, *8*(4), 230.

Cauce, A. M., Paradise, M., Ginzler, J. A., Embry, L., Morgan, C. J., Lohr, Y., & Theofelis, J. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional and Behavioral Disorders*, *8*(4), 230-239.

Cauce, A. M., Ptacek, J. T., Mason, C., & Smith, R. E. (1995). *The Social Support Rating Scale-Revised (SSRS-R): Three studies on development and validation*. Unpublished manuscript, University of Washington.

Centers for Disease Control and Prevention (2019). Preventing adverse childhood experiences: Leveraging the best available evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, *82*(2), 217–225.

Children's Bureau (2015). *Child Welfare Outcomes 2015: Report to Congress.* https://www.acf.hhs.gov/cb/resource/cwo-2015.

Chun, J., & Springer, D. W. (2005). Stress and coping strategies in runaway youths: An application of Concept Mapping. *Brief Treatment and Crisis Intervention*, *1*, 57.

Clark, L. A., & Watson, D. (1991). Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology, 100*(3), 316–336.

Cochran, B. N., Stewart, A. J., Ginzler, J. A., & Cauce, A. M. (2002). Challenges faced by homeless sexual minorities: Comparison of gay, lesbian, bisexual, and transgender homeless adolescents with their heterosexual counterparts. *American Journal of Public Health*, *92*(5), 773.

Cohen J. (1988). Statistical Power Analysis for the Behavioral Sciences. New York, NY: Routledge Academic

Cohn, J. F., & Tronick, E. (1989). Specificity of infants' response to mothers' affective behavior. *Journal of the American Academy of Child & Adolescent Psychiatry, 28*(2), 242-248.

Cole, P. M., Armstrong, L. M., & Pemberton, C. K. (2010). *The role of language in the*

development of emotion regulation. In S. D. Calkins & M. A. Bell (Eds.), *Human brain development. Child development at the intersection of emotion and cognition* (p. 59–77). American Psychological Association.

Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development*, *75*(2), 317-333.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, *1*, 87.

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, *143*(9), 939–991.

Connell, J. P. (1990). *Context, self, and action: A motivational analysis of self-system processes across the life span.* In D. Cicchetti & M. Beeghly (Eds.), *The John D. and Catherine T. MacArthur foundation series on mental health and development. The self in transition: Infancy to childhood* (p. 61–97). University of Chicago Press.

Coren, E., Hossain, R., Pardo, J., Veras, M. M., Chakraborty, K., Harris, H., & Martin, A. J. (2016). Interventions for promoting reintegration and reducing harmful behaviour and lifestyles in street-connected children and young people: A systematic review. *Campbell Systematic Reviews*, *12*(1), 1–198.

Corno, L., & Mandinach, E. (1983). The role of cognitive engagement in classroom learning and motivation. *Educational Psychologist*, 18, 88-108.

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, *60*(8), 837–844. https://doi.org/10.1001/archpsyc.60.8.837

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.

Creswell, J.W. & Plano Clark, V.L. (2011). *Designing and conducting mixed methods Research* (2nd ed.). Sage Publications, Los Angeles.

Culhane, D., Treglia, D., Steif, K., Kuhn, R., Byrne, T. (2020). *Estimated emergency and observational/quarantine capacity need for the US homeless population related to COVID-19 exposure by county; Projected hospitalizations, Intensive care units and mortality.* https://works.bepress.com/dennis_culhane/237/

Cyranowski, J. M., Frank, E., Young, E., & Shear, M. K. (2000). Adolescent onset of the gender difference in lifetime rates of major depression: a theoretical model. *Archives of general psychiatry*, *57*(1), 21-27.

Dalgleish, T., Moradi, A. R., Taghavi, M. R., Neshat-Doost, H. T., & Yule, W. (2001). An experimental investigation of hypervigilance for threat in children and adolescents with post-traumatic stress disorder. *Psychological Medicine*, 3, 541–547.

Dalton, M. M., & Pakenham, K. I. (2002). Adjustment of homeless adolescents to a crisis shelter: Application of a stress and coping model. *Journal of Youth and Adolescence, 31,* 79–89.

Dang, M. T., Conger, K. J., Breslau, J., & Miller, E. (2014). Exploring Protective Factors among homeless youth: The role of natural mentors. *Journal of Health Care for the Poor & Underserved*, *25*(3), 1121.

Dang, M. T., & Miller, E. (2013). Characteristics of natural mentoring relationships from the perspectives of homeless youth. *Journal Of Child & Adolescent Psychiatric Nursing*, *26*(4), 246-253 8p.

Darbyshire, P., Muir-Cochrane, E., Fereday, J., Jureidini, J., & Drummond, A. (2006). Engagement with health and social care services: Perceptions of homeless young people with mental health problems. *Health & Social Care In The Community*, *14*(6), 553-562.

Davies, B. R., & Allen, N. B. (2017). Review: Trauma and homelessness in youth: Psychopathology and intervention. *Clinical Psychology Review*, *54*17-28. doi:10.1016/j.cpr.2017.03.005

De Rosa, C., Montgomery, S., Kipke, M., Iverson, E., Ma, J., & Unger, J. (1999). Service utilization among homeless and runaway youth in Los Angeles, California: Rates and reasons [corrected and republished article originally printed in Journal of Adolescent Health 1999 Mar; 24(3): 190-200]. *Journal Of Adolescent Health*, *24*(6), 449-458.

Diener, E., Scollon, C. N., & Lucas, R. E. (2009). The evolving concept of subjective well-being: The multifaceted nature of happiness. In E. Diener (Ed.) *Assessing well-being: The collected works of Ed Diener Social Indicators Research Series 39.* (pp. 67-100). New York, NY: Springer.

Dixon, C., Funston, L., Ryan, C., & Wilhelm, K. (2011). Linking young homeless people to mental health services: An exploration of an outreach clinic at a supported youth accommodation service. *Advances In Mental Health*, (1), 83.

Dohrn, B. (1991). *A long way from home: Chicago's homeless children and the schools*. Homeless Advocacy Project and Legal Assistance Foundation of Chicago. https://files.eric.ed.gov/fulltext/ED378250.pdf

DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology*, *30*(2), 157–197.

Duffy, C. J., Cunningham, E. G., & Moore, S. M. (2005). The factor structure of mood states in an early adolescent sample. Journal of Adolescence, 28, 677–680.

Dunkley, J., & Whelan, T, A. (2006). Vicarious traumatisation: Current status and future directions. *British Journal of Guidance and Counselling*, 34, 107-116.

Dunn, V., & Goodyer, I. M. (2006). Longitudinal investigation into childhood-and adolescence-onset depression: psychiatric outcome in early adulthood. *British Journal of Psychiatry*, 216.

Eby, L. T., Allen, T. D., Evans, S. C., Ng, T., & Dubois, D. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior*, *72*(2), 254–267.

Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & Mac Iver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist, 48*(2), 90–101.

Eckenrode, J., Rowe, E., Laird, M., & Brathwaite, J. (1995). Mobility as a mediator of the effects of child maltreatment on academic performance. *Child Development*, *66*(4), 1130-1142.

Edidin, J. P., Ganim, Z., Hunter, S. J., & Karnik, N. S. (2012). The mental and physical health of homeless youth: a literature review. *Child Psychiatry and Human Development*, *43*(3), 354–375.

Eisenberg, N., Spinrad, T. L., & Eggum, N. D. (2010). Emotion-related self-regulation and its

relation to children's maladjustment. *Annual Review of Clinical Psychology*, *6*, 495-525.

Einstein, D. A., Lovibond, P. F., & Gaston, J. E. (2000). Relationship between perfectionism and emotional symptoms in an adolescent sample. *Australian Journal of Psychology, 52*(2), 89–93.

Eklund, K., Dowdy, E., Jones, C., & Furlong, M. (2011). Applicability of the dual-factor model of mental health for college students. *Journal of College Student Psychotherapy, 25*(1), 79-92.

Esposito, Emily E. (2018). A longitudinal analysis of the effect of the Starting Right, Now program on unaccompanied homeless adolescents' well-being. *Graduate Theses and Dissertations.* https://scholarcommons-usf-edu.ezproxy.lib. usf.edu/etd/7283

Fantuzzo, J., LeBoeuf, W., Chen, C., Rouse, H., & Culhane, D. (2012). The unique and combined effects of homelessness and school mobility on the educational outcomes of young children. *Educational Researcher, 41*(9), 393-402.

Feeny, N. C., Zoellner, L. A., Fitzgibbons, L. A., & Foa, E. B. (2000). Exploring the roles of emotional numbing, depression, and dissociation in PTSD. *Journal of Traumatic Stress*, *3*, 489.

Ferguson, K. M. (2007). Implementing a Social Enterprise Intervention with homeless, street-living youths in Los Angeles. *Social Work -Albany, New York-*, *2*, 103.

Ferguson, K. (2010). Social Development, Social Enterprise, and Homeless Youth. In *Social Work and Social Development: Theories and Skills for Developmental Social Work* (Vol. 9780199732326). Oxford University Press.

Ferguson, K., & Xie, B. (2008). Feasibility study of the social enterprise intervention with homeless youth. *Research On Social Work Practice*, *18*(1), 5-19.

Finn, J. D. (1989). Withdrawing From School. *Review of Educational Research*, *59*(2), 117–142.

Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology*, *82*(2), 221.

Finn, J. D., & Voelkl, K.E. (1993). School characteristics related to student engagement. *The Journal of Negro Education*, *62*(3), 249.

Fowler, P. J., Toro, P. A., & Miles, B. W. (2009). Pathways to and from homelessness and associated psychosocial outcomes among adolescents leaving the foster care system. *American Journal of Public Health*, *99*(8), 1453–1458.

Fredricks, J. A., Blumenfeld, P., Friedel, J., & Paris, A. (2005). School engagement. In *What do children need to flourish?* (pp. 305-321). Springer, Boston, MA. Frijda, N. H. (1986). *The emotions*. Cambridge University Press.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59-109.

Garber, J. (2006). Depression in children and adolescents: Linking risk research and prevention. *American Journal of Preventive Medicine*, *31*(6), 104–125.

Garnefski, N., Legerstee, J., Kraaij, V., van Den Kommer, T., & Teerds, J. A. N. (2002). Cognitive coping strategies and symptoms of depression and anxiety: A comparison between adolescents and adults. *Journal of adolescence*, *25*(6), 603-611.

Garner, P. (2006). Prediction of prosocial and emotional competence from maternal behavior in African American preschoolers. *Cultural Diversity & Ethnic Minority Psychology.* 12. 179-98.

Gibb, B. E., & Abela, J. R. (2008). Emotional abuse, verbal victimization, and the development

of children's negative inferential styles and depressive symptoms. *Cognitive Therapy and Research*, *32*(2), 161-176.

Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *TheLancet*, *373*(9657), 68-81.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41-54.

Gullone, E., Hughes, E. K., King, N. J., & Tonge, B. (2010). The normative development of emotion regulation strategy use in children and adolescents: A 2-year follow-up study. *Journal of Child Psychology and Psychiatry*, *51*(5), 567-574.

Gullone, E., & Taffe, J. (2012). The emotion regulation questionnaire for children and adolescents (ERQ–CA): A psychometric evaluation. *Psychological Assessment*, 24, 409–417.

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research, 54,* 81-108.

Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology, 74*(1), 224–237.

Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science*, 10, 214–219. doi: 10.1111/1467-8721.00152

Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences.

Psychophysiology, 39, 281–291.

Gross, J. J., & John, O. P. (1998). Mapping the domain of expressivity: Multimethod evidence for a hierarchical model. *Journal of Personality and Social Psychology*, *1*, 170.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*(2), 348.

Gross, J. J., & Levenson, R. W. (1993). Emotional suppression: Physiology, self-report, and expressive behavior. *Journal of Personality and Social Psychology*, *64*(6), 970–986.

Gross, J. J., & Thompson, R. A. (2007). *Emotion Regulation: Conceptual Foundations.* In J. J. Gross (Ed.), *Handbook of Emotion Regulation* (p. 3–24). The Guilford Press.

Hankin, B. L., & Abramson, L. (2001). Development of gender differences in depression: An elaborated cognitive vulnerability-transactional stress theory. *Psychological Bulletin*, 127, 773–796.

Hardy-Brown, K., & Plomin, R. (1985). Infant communicative development: Evidence from adoptive and biological families for genetic and environmental influences on rate differences. *Developmental Psychology*, *21*(2), 378.

Hawker, D. S., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(4), 441-455.

Hazel, C. E., Vazirabadi, G. E., Albanes, J., & Gallagher, J. (2014). Evidence of convergent and discriminant validity of the Student School Engagement Measure. *Psychological Assessment*, *26*(3), 806–814. doi: 10.1037/a0036277

Heinlein, L. M., & Shinn, M. (2000). School mobility and student achievement in an urban

setting. *Psychology in the Schools*, *37*(4), 349-357.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227–239.

Henry, K. L., Knight, K. E., & Thornberry, T. P. (2012). School disengagement as a predictor of dropout, delinquency, and problem substance use during adolescence and early adulthood. *Journal of Youth and Adolescence*, *41*(2), 156-166.

Heusel, K. D. (1995). *Homeless children: Their perspectives.* New York: Garland.

Hirshfeld-Becker, D. R., Biederman, J., Henin, A., Faraone, S. V., Davis, S., Harrington, K., & Rosenbaum, J. F. (2007). Behavioral inhibition in preschool children at risk is a specific predictor of middle childhood social anxiety: A five-year follow-up. *Journal of Developmental & Behavioral Pediatrics*, *28*(3), 225-233.

Hirshfeld-Becker, D. R., Masek, B., Henin, A., Blakely, L. R., Rettew, D. C., Dufton, L., Segool, N., & Biederman, J. (2008). Cognitive-behavioral intervention with young anxious children. *Harvard review of psychiatry*, *16*(2), 113–125.

Hodgson, K. J., Shelton, K. H., van den Bree, M. B., & Los, F. J. (2013). Psychopathology in young people experiencing homelessness: a systematic review. *American Journal of Public Health*, *103*(6), e24–e37.

Holli, T. (2005) Coregulating distress: Mother-child interactions around children's distress from 14 to 24 months, *International Journal of Behavioral Development*, 29:5, 433-444.

Hsieh, M., & Stright, A. D. (2012). Adolescents' emotion regulation strategies, self-concept, and internalizing problems. *The Journal of Early Adolescence*, *32*(6), 876-901.

Huang, C-Y., & Menke, E. M. (2001). School-aged homeless sheltered children's stressors and coping strategies. *Journal of Pediatric Nursing, 16,* 102–109.

Huang, J. Y., Arnold, D., Qiu, C., Miller, R. S., Williams, M. A., & Enquobahrie, D. A. (2014). Association of Serum Vitamin D with symptoms of depression and anxiety in early pregnancy. *Journal of Women's Health (15409996)*, *23*(7), 588–595.

Huebner, E. S. (1991). Initial development of the Students' Life Satisfaction Scale. *School Psychology International, 12*, 231–240.

Hyde, J. S., Mezulis, A. H., & Abramson, L. Y. (2008). The ABCs of depression: Integrating affective, biological, and cognitive models to explain the emergence of the gender difference in depression. *Psychological Review*, (2), 291.

Ioannidis, C. A., & Siegling, A. B. (2015). Criterion and incremental validity of the emotion regulation questionnaire. *Frontiers in Psychology, 6,* Article 247.

Jaser, S. S., Champion, J. E., Reeslund, K. L., Keller, G., Merchant, M. J., Benson, M., & Compas, B. E. (2007). Cross-situational coping with peer and family stressors in adolescent offspring of depressed parents. *Journal of Adolescence*, *30*(6), 917-932.

John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72, 1301–1333.

John, O. P., & Srivastava, S. (1999). *The Big Five Trait taxonomy: History, measurement, and theoretical perspectives.* In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (p. 102–138). Guilford Press.

Joniak, E. A. (2005). Exclusionary practices and the delegitimization of client voice: How staff

create, sustain, and escalate conflict in a drop-in center for street kids. *American Behavioral Scientist*, *48*(8), 961–988.

Kagan, J., Reznick, J. S., Snidman, N., Gibbons, J., & Johnson, M. O. (1988). Childhood derivatives of inhibition and lack of inhibition to the unfamiliar. *Child Development*, *59*(6), 1580–1589.

Kamieniecki, G. W. (2001). Prevalence of psychological distress and psychiatric disorders among homeless youth in Australia: a comparative review. *Australian and New Zealand Journal of Psychiatry, 3*, 352.

Karg, K., Burmeister, M., Shedden, K., & Sen, S. (2011). The serotonin transporter promoter variant (5-HTTLPR), stress, and depression meta-analysis revisited: Evidence of genetic moderation. *Archives of General Psychiatry*, *68*(5), 444-454.

Kendler, K. S., Kessler, R. C., Neale, M. C., Heath, A. C., & Eaves, L. J. (1993). The prediction of major depression in women: Toward an integrated etiologic model. *American Journal of Psychiatry*, *150*, 1139-1139.

Kendler, K. S., Kuhn, J., Vittum, J., Prescott, C., & Riley, B. (2005). The interaction of stressful life events and a serotonin transporter polymorphism in the prediction of episodes of major depression. *Archives of General Psychiatry*, 62, 529 –535.

Kerby, D. S. (2014) The simple difference formula: an approach to teaching nonparametric correlation. *Innovative Teaching*, 3, 1.

Kern, M. L., Benson, L., Steinberg, E. A., & Steinberg, L. (2016). The EPOCH measure of adolescent well-being. *Psychological Assessment, 28*(5), 586-597.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International Journal of Methods in Psychiatric Research*, *21*(3), 169–184.

Kidd, S. (2012). Seeking a coherent strategy in our response to homeless and street-involved youth: A historical review and suggested future directions. Journal of Youth and Adolescence, 41, 533–543.

Kidd, S. A., & Carroll, M. R. (2007). Coping and suicidality among homeless youth. *Journal of Adolescence*, *30*(2), 283–296.

Kidwell, S. L., Young, M. E., Hinkle, L. D., Ratliff, A. D., Marcum, M. E., & Martin, C. N. (2010). Emotional competence and behavior problems: Differences across preschool assessment of attachment classifications. *Clinical Child Psychology and Psychiatry*, *15*(3), 391–406.

Kipke, M. D., Unger, J. B., O'Connor, S., Palmer, R. F., & LaFrance, S. R. (1997). Street youth, their peer group affiliation and differences according to residential status, subsistence patterns, and use of services. *Adolescence*, *32*(127), 655-669.

Kozloff, N., Adair, C. E., Palma Lazgare, L. I., Poremski, D., Cheung, A. H., Sandu, R., & Stergiopoulos, V. (2016). “Housing First” for Homeless Youth With Mental Illness. *Pediatrics*, *138*(4), 1–10.

Larson, C. L., Taubitz, L. E., & Robinson, J. S. (2010). MAOA T941G polymorphism and the time course of emotional recovery following unpleasant pictures. *Psychophysiology*, *47*(5), 857-862.

Larsen, J. K., Vermulst, A. A., Eisinga, R., English, T., Gross, J. J., Hofman, E., Scholte, R. H., & Engels, R. C. (2012). Social coping by masking? Parental support and peer victimization as mediators of the relationship between depressive symptoms and expressive suppression in adolescents. *Journal of Youth and Adolescence*, 12, 1628.

Laurent, J., Catanzaro, J., Joiner, T. E., Rudolph, K., Potter, K. I., Lambert, S., . . . Gathright, T. (1999). A measure of positive and negative affect for children: Scale development and preliminary validation. *Psychological Assessment, 11*, 326–338.

Lawson, G., & Myers, J. E. (2011). Wellness, professional quality of life, and career-sustaining behaviors: What keeps us well? *Journal of Counseling and Development*, 89, 163-171.

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, *46*(4), 352.

Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44, 1-21.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Lee, D. (2019). The convergent, discriminant, and nomological validity of the Depression Anxiety Stress Scales-21 (DASS-21). *Journal of Affective Disorders*, *259*, 136–142.

Lewinsohn, P. M., Allen, N. B., Seeley, J. R., & Gotlib, I. H. (1999). First onset versus recurrence of depression: Differential processes of psychosocial risk. *Journal of Abnormal Psychology*, *3*, 483.

Lewinsohn, P. M. Rohde, P., Seeley, J.R., Klein, D.N. & Gotlib, I.H. (2000). Natural course of adolescent Major Depressive Disorder in a community sample: Predictors of recurrence in young adults. *American Journal of Psychiatry: Official Journal of the American Psychiatric Association*, *10*, 1584.

Li, P., Wang, W., Fan, C., Zhu, C., Li, S., Zhang, Z., Qi, Z., & Luo, W. (2017). Distraction and Expressive Suppression Strategies in Regulation of High- and Low-Intensity Negative Emotions. *Scientific Reports*, *7*(1), 1–8.

Lieb, R., Wittchen, H. U., Höfler, M., Fuetsch, M., Stein, M. B., & Merikangas, K. R. (2000). Parental psychopathology, parenting styles, and the risk of social phobia in offspring: a prospective-longitudinal community study. *Archives of General Psychiatry*, *57*(9), 859–866.

Liu, W., Chen, L., & Tu, X. (2017). Chinese adaptation of Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CCA): A psychometric evaluation in Chinese children. *International Journal Of Psychology*, *52*(5), 398-405.

Lougheed, J. P., & Hollenstein, T. (2012). A limited repertoire of emotion regulation strategies is associated with internalizing problems in adolescence. *Social Development*, 21, 704–721.

Lovibond, P. F. (1998). Long-term stability of depression, anxiety, and stress syndromes. *Journal of Abnormal Psychology, 107*(3), 520–526.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335–343.

Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression Anxiety & Stress Scales. (2nd Ed.) Sydney: Psychology Foundation.

MacQueen, K. M., McLellan, E., Kay, K., & Milstein, B. (1998). Codebook development for team-based qualitative analysis. *Field Methods*, *10*(2), 31.

MacLean, M. G., Embry, L. E., & Cauce, A. M. (1999). Homeless adolescents' paths to separation from family: Comparison of family characteristics, psychological adjustment, and victimization. *Journal of Community Psychology*, *27*(2), 179-187.

MacLeod, C., Rutherford, E., Campbell, L., Ebsworthy, G., & Holker, L. (2002). Selective attention and emotional vulnerability: Assessing the causal basis of their association through the manipulation of attentional bias. *Journal of Abnormal Psychology*, 111, 107–123.

Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout?. *Developmental Psychology*, *33*(2), 241.

Manlove, J. (1998). The influence of high school dropout and school disengagement on the risk of school-age pregnancy. *Journal of Research on Adolescence*, *8*(2), 187-220.

Martijn, C., & Sharpe, L. (2006). Pathways to youth homelessness. *Social Science & Medicine*, *62*(1), 1-12.

Mason, C. A., Cauce, A. M., Gonzales, N., Hiraga, Y., & Grove, K. (1994). An ecological model of externalizing behaviors in African-American adolescents: No family is an island. *Journal of Research on Adolescence, 4*(4), 639–655.

Masten, A. S. (1989). Resilience in development: Implications of the study of successful adaptation for developmental psychopathology. In D. Cicchetti, D. Cicchetti (Eds.), *The emergence of a discipline: Rochester Symposium on Developmental Psychopathology,Vol. 1* (pp. 261-294). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

Masten A. S. (2007). Resilience in developing systems: progress and promise as the fourth wave rises. *Development and Psychopathology*, *19*(3), 921–930.

Masten, A. S. (2018). Resilience Theory and Research on Children and Families: Past, Present, and Promise. *Journal of Family Theory and Review*, *1*, 12.

McCann. I. L,., & Pearlman, I.. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3, 131-149. doi: 10.10.07/BF00975140

McKinney-Vento Homeless Assistance Act of 1987. 42 U.S.C. § 11431, et seq. 2002.

McMullen, M., Lau, P. K. H., Taylor, S., McTigue, J., Cook, A., Bamblett, M., Hasani, A., & Johnson, C. E. (2018). Factors associated with psychological distress amongst outpatient chemotherapy patients: An analysis of depression, anxiety and stress using the DASS-21. *Applied Nursing Research*, 45.

Medalia, A., Ronan, E. J., Lee, S., & Saperstein, A. M. (2014). Cognitive deficit and mental health in homeless transition-age youth. *Pediatrics*, *1*, 138.

Medlow, S., Klineberg, E., & Steinbeck, K. (2014). The health diagnoses of homeless adolescents: A systematic review of the literature. *Journal of Adolescence*, (5). 531.

Mellings, T. M., & Alden, L. E. (2000). Cognitive processes in social anxiety: The effects of self-focus, rumination and anticipatory processing. *Behaviour Research and Therapy*, *38*(3), 243-257.

Mellor, D., Vinet, E. V., Xu, X., Bt Mamat, N. H., Richardson, B., Román, F. (2014). Factorial invariance of the DASS-21 among adolescents in four countries. *European Journal of Psychological Assessment,* 31,138–142.

Menke, E. M. (2000). Comparison of the stressors and coping behaviors of homeless, previously homeless, and never homeless poor children. *Issues in Mental Health Nursing, 21,* 691–710.

Merikangas, K. R., Avenevoli, S., Dierker, L., & Grillon, C. (1999). Vulnerability factors among children at risk for anxiety disorders - Mechanisms of psychiatric disorder. *Biological Psychiatry -New York-*, *11*, 1523.

Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication--Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(10), 980–989.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). San Francisco, CA: Jossey Bass.

Merscham C., Van Leeuwen, J.M., McGuire, M. (2009). Mental health and substance abuse indicators among homeless youth in Denver, Colorado. *Child Welfar*e, 88(2), 93-110.

Miller, P. M. (2011a). An Examination of the McKinney-Vento Act and Its Influence on the Homeless Education Situation. *Educational Policy*, *25*(3), 424-450.

Miller, P. M. (2011b). A Critical Analysis of the Research on Student Homelessness. *Review Of Educational Research*, *81*(3), 308-337.

Moore, J. (2005). *Unaccompanied and homeless youth review of literature (1995-2005).* Greensboro, NC: National Center for Homeless Education.

Moore, S. A., Dowdy, E., & Furlong, M. J. (2017). Using the Depression, Anxiety, Stress Scales–21 with U.S. adolescents: An alternate models analysis. *Journal of Psychoeducational Assessment*, *35*(6), 581–598.

Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, *1*(1), 48–76.

Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, *20*(8), 1045–1053.

Morris, J., Belfer, M., Daniels, A., Flisher, A., Villé, L., Lora, A. and Saxena, S. (2011), Treated prevalence of and mental health services received by children and adolescents in 42 low-and-middle-income countries. *Journal of Child Psychology and Psychiatry*, 52: 1239-1246.

Morse, G., Calsyn, R., Miller, J., Rosenberg, P., Gilliland, J. & West, L. (1996). Outreach to homeless mentally ill people: conceptual and clinical considerations. *Community Mental Health Journal*, *32*(3), 261-274.

Moses, J. O., & Villodas, M. T. (2017). The potential protective role of peer relationships on school engagement in at-risk adolescents. *Journal of Youth and Adolescence*, *46*(11), 2255-2272.

Moskowitz, A., Stein, J. A., & Lightfoot, M. (2013). The Mediating Roles of Stress and Maladaptive Behaviors on Self-Harm and Suicide Attempts Among Runaway and Homeless Youth. *Journal of Youth and Adolescence*, *7*, 1015.

Nanthakumar, S., Bucks, R. S., Skinner, T. C., Starkstein, S., Hillman, D., James, A., & Hunter, M. (2017). Assessment of the Depression, Anxiety, and Stress Scale (DASS-21) in untreated Obstructive Sleep Apnea (OSA). *Psychological Assessment*, *10*, 1201.

National Alliance to End Homelessness (2020). *State of homelessness: 2020 edition.* Retrieved from https://endhomelessness.org/homelessness-in- america/homelessness-statistics/ state-of-homelessness-2020/

National Center for Homeless Education (2020). Federal data summary school years 2015-16 through 2017-18: Education for homeless children and youth. https://nche.ed.gov/ wp-content/uploads/2020/01/Federal-Data-Summary-SY-15.16-to-17.18-Published-1.30.2020.pdf

National Center on Family Homelessness. (1999). *Homeless Children: America's New Outcasts*. Newton, MA.

National Coalition for the Homeless. (2012). Data collection summary from school year 2010-2011 federally required data collection for the McKinney-Vento Education Assistance Improvements Act of 2001 and comparison of the SY 2008-09, SY 2009-10 and SY 2010-11 data collections. Washington, DC: Author.

Nelson, E. C., Grant, J. D., Bucholz, K. K., Glowinski, A., Madden, P. A. F., Reich, W., & Heath, A. C. (2000). Social phobia in a population-based female adolescent twin sample: Comorbidity and associated suicide-related symptoms. *Psychological Medicine*, 30, 797–804.

Newmann, F., Wehlage, G. G., & Lamborn, S. D. (1992). The significance and sources of student engagement. In F. Newinann (Ed.), Student engagement and achievement in American secondary schools (pp. 11-39). New York: Teachers College Press.

Ng, F., Trauer, T., Dodd, S., Callaly, T., Campbell, S., & Berk, M. (2007). The validity of the 21-item version of the Depression Anxiety Stress Scales as a routine clinical outcome measure. *Acta Neuropsychiatrica*, *19*(5), 304–310.

Noh, D. (2018). Psychological interventions for runaway and homeless youth. *Journal of Nursing Scholarship*, *5*, 465.

Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, *115*(3), 424.

Nooner, K. B., Linares, L. O., Batinjane, J., Kramer, R. A., Silva, R., & Cloitre, M. (2012). Factors related to posttraumatic stress disorder in adolescence. *Trauma, Violence, & Abuse*, *13*(3), 153-166.

Nunnally, J. (1978) Psychometric theory, 2nd edition. McGraw-Hill, New York

Pawlak, C., Pascual-Sanchez, T., Rae, P., Fischer, W., & Ladame, F. (1999). Anxiety disorders, comorbidity, and suicide attempts in adolescence: A preliminary investigation. *European Psychiatry*, 14, 132–136.

Pearlman, L. A., & Saakvtime, K. W. (1995). Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors. New York, NY: Norton.

Perlman, S., Willard, J., Herbers, J. E., Cutuli, J. J., & Garg, K. E. (2014). Youth homelessness: Prevalence and mental health correlates. *Journal Of The Society For Social Work & Research*, *5*(3), 361. doi:10.1086/677757

Perrino, T., Beardslee, W., Bernal, G., Brincks, A., Cruden, G., Howe, G., ... & Brown, C. H. (2015). Toward scientific equity for the prevention of depression and depressive symptoms in vulnerable youth. *Prevention Science*, *16*(5), 642-651.

Pierce, S. C., Grady, B., & Holtzen, H. (2018). Daybreak in Dayton: Assessing characteristics and outcomes of previously homeless youth living in transitional housing. *Children and Youth Services Review*, *88*, 249–256.

Porche, M. V., Fortuna, L. R., Lin, J., & Alegria, M. (2011). Childhood trauma and psychiatric disorders as correlates of school dropout in a national sample of young adults. *Child development*, *82*(3), 982-998.

Prelow, H. M., & Loukas, A. (2003). The role of resource, protective, and risk factors on academic achievement-related outcomes of economically disadvantaged Latino youth. *Journal of Community Psychology*, *31*(5), 513-529.

Raffaele Mendez, L. M. R., Dickinson, S., Esposito, E., Connolly, J., & Bonilla, L. (2018). Common themes in the life stories of unaccompanied homeless youth in high school: Implications for educators. *Contemporary School Psychology*, *22*(3), 332–343.

Rafferty, Y., Shinn, M., & Weitzman, B. C. (2004). Academic achievement among formerly homeless adolescents and their continuously housed peers. *Journal Of School Psychology*, *42*(3), 179-199.

Randle, C.A. (2016). *Lifted: A thematic analysis of homeless youths' reflections on their lives since beginning a multi-faceted, community-based intervention called Starting Right, Now*. (Specialist-level thesis). Retrieved from University of South Florida Scholar Commons. (ETD6363).

Rashid, S. (2004). Evaluating a Transitional Living Program for Homeless, Former Foster Care Youth. *Research on Social Work and Practice, 4, 240.*

Restifo, K., & Bögels, S. (2009). Family processes in the development of youth depression: Translating the evidence to treatment. *Clinical Psychology Review*, *29*(4), 294-316.

Renshaw, T. L. & Cohen, A. S. (2014). Life satisfaction as a distinguishing indicator of college student functioning: Further validation of the two-continua model of mental health. *Social Indicators Research, 117*, 319-334.

Reynolds, C. R., & Kamphaus, R. (2004). *Behavior Assessment System for Children* (2nd ed.). Circle Pines, MN: American Guidance Services.

Reynolds, C.R. & Kamphaus, R.W. (2015). *Behavior Assessment System for Children* (3rd ed.) [Assessment instrument]. Bloomington, MN: Pearson.

Rhodes, J. E. (2002). *Stand by Me : The Risks and Rewards of Mentoring Today's Youth*. Cambridge, Mass: Harvard University Press.

Rice, F., Harold, G., & Thapar, A. (2002). The genetic aetiology of childhood depression: a review. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, *43*(1), 65.

Riva Crugnola, C., Tambelli, R., Spinelli, M., Gazzotti, S., Caprin, C., & Albizzati, A. (2011). Attachment patterns and emotion regulation strategies in the second year. *Infant Behavior & Development*, *34*(1), 136–151.

Rodriguez, J. M., & Eidelman, T. A. (2017). Homelessness interventions in Georgia: Rapid re-Housing, transitional housing, and the likelihood of returning to shelter. *Housing Policy Debate*, *6*, 825.

Rodriguez, N., Vande Kemp, H., & Foy, D. W. (1998). Posttraumatic stress disorder in survivors of childhood sexual and physical abuse: A critical review of the empirical research. *Journal of Child Sexual Abuse*, 72, 17- 45.

Rohde, P., Noell, J., Ochs, L., & Seely, J. R. (2001). Depression, suicidal ideation and STD-related risk in homeless older adolescents. *Journal Of Adolescence*, *24*(4), 447.

Rohr, M. E., & James, R. (1994). Runaways: Some suggestions for prevention, coordinating services, and expediting the reentry process. *The School Counselor*, *42*(1), 40-47.

Rolf, J., Garmezy, N., Masten, A.S., Cicchetti D., Nüchterlein K.H., Weintraub S. (1990). *Risk and Protective Factors in the Development of Psychopathology*. Cambridge, NY: Cambridge University Press.

Rowe, E., & Eckenrode, J. (1999). The timing of academic difficulties among maltreated and nonmaltreated children. *Child Abuse & Neglect*, *23*(8), 813-832.

Rueter, M. A., Scaramella, L., Wallace, L. E., & Conger, R. D. (1999). First onset of depressive or anxiety disorders predicted by the longitudinal course of internalizing symptoms and parent-adolescent disagreements. *Archives of General Psychiatry*, *8*, 726.

Saakvitne, K. W., & Pearlman, L. A. (1996). Transforming the pain: A workbook on vicarious traumatization. New York, NY: Norton.

Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). *Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale.* In J. W. Pennebaker (Ed.), *Emotion, disclosure, & health* (p. 125–154). American Psychological Association.

Sawrikar, P., & Hunt, C. J. (2005). The relationship between mental health, cultural identity and cultural values in Non-English Speaking Background (NESB) Australian adolescents. *Behaviour Change, 22*(2), 97–113.

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press.

Selye, H. (1974). Stress without distress. New York: Lippincott

Scott, J., Chant, D., Andrews, G., Martin, G., & McGrath, J. (2007). Association between trauma exposure and delusional experiences in a large community-based sample. *The British Journal of Psychiatry*, *190*(4), 339-343.

Shi, J., Potash, J. B., Knowles, J. A., Weissman, M. M., Coryell, W., Scheftner, W. A., Lawson, W. B., DePaulo, J. R., Gejman, P. V., & Sanders, A. R. (2011). Genome-wide association study of recurrent early-onset major depressive disorder. *Molecular Psychiatry*, *2*, 193.

Shyn, S. I., Shi, J., Kraft, J. B., Potash, J. B., Knowles, J. A., Weissman, M. M., Garriock, H. A., Yokoyama, J. S., McGrath, P. J., & Peters, E. J. (2011). Novel loci for major depression identified by genome-wide association study of Sequenced Treatment Alternatives to Relieve Depression and meta-analysis of three studies. *Molecular Psychiatry*, *2*, 202.

Siegel, R.S., La Greca, A.M., Harrison, & H.M. (2009) Peer victimization and social anxiety in adolescents: Prospective and reciprocal relationships. *Journal of Youth Adolescence*, 3, 1096–1109.

Silberg, J., Pickles, A., Rutter, M., Hewitt, J., Simonoff, E., Maes, H., Carbonneau, R., Murrelle, L., Foley, D., & Eaves, L. (1999). The influence of genetic factors and life stress on depression among adolescent girls. *Archives of general psychiatry*, *56*(3), 225–232.

Skemer, M., & Valentine, E. J., (2016). Striving for Independence: Two-year impact findings from the Youth Villages Transitional Living Evaluation. In *MDRC*. MDRC.

Slesnick, N., Feng, X., Guo, X., Brakenhoff, B., Carmona, J., Murnan, A., Cash, S., & McRee, A. L. (2016). A test of outreach and drop-in linkage versus shelter linkage for connecting homeless youth to services. *Prevention Science*, *4*, 450.

Slesnick, N., Guo, X., Brakenhoff, B., & Bantchevska, D. (2015). A comparison of three interventions for homeless youth evidencing substance use disorders: results of a randomized clinical trial. *Journal of Substance Abuse Treatment*, *54*, 1–13

Slesnick, N., Kang, M., Bonomi, A., & Prestopnik, J. (2008). Six- and twelve-month outcomes

among homeless youth accessing therapy and case management services through an urban drop-in center. *Health Services Research*, *43*(1 Part 1).

Slesnick, N., & Prestopnik, J. (2005). Dual and multiple diagnosis among substance using runaway youth. *American Journal of Drug & Alcohol Abuse*, *31*(1), 179–201.

Slesnick, N., Prestopnik, J.L., Meyers, R.J., & Glassman, M. (2007). Treatment outcome for street-living, homeless youth. *Addictive Behaviors, 32,* 1237-1251.

Smith, P., Perrin, S., Yule, W., & Rabe-Hesketh, S. (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia-Herzegovina. *Journal of Child Psychology and Psychiatry*, 42, 395–404.

Smoller, J. W., Paulus, M. P., Fagerness, J. A., Purcell, S., Yamaki, L. H., Hirshfeld-Becker, D., Biederman, J., Rosenbaum, J. F., Gelernter, J., & Stein, M. B. (2008). Influence of RGS2 on Anxiety-Related Temperament, Personality, and Brain Function. *Archives of General Psychiatry*, *3*, 298.

Spell, A. W., Kelley, M. L., Wang, J., Self-Brown, S., Davidson, K. L. et al. (2008). The moderating effects of maternal psychopathology on children's adjustment post-Hurricane Katrina. *Journal of Clinical Child and Adolescent Psychology*, 37, 553–563.

Spinrad, T. L., Eisenberg, N., Gaertner, B., Popp, T., Smith, C. L., Kupfer, A., Greving, K., Liew, J., & Hofer, C. (2007). Relations of maternal socialization and toddlers' effortful control to children's adjustment and social competence. *Developmental Psychology*, *43*(5), 1170–1186.

Steiner, M., Dunn, E., & Born, L. (2003). Hormones and mood: from menarche to menopause and beyond. *Journal of Affective Disorders*, *74*(1), 67-83.

Stewart, A. J., Steiman, M., Cauce, A. M., Cochran, B. N., WhiteBeck, L. B., & Hoyt, D. R.

(2004). Victimization and posttraumatic stress disorder among homeless adolescents. *Journal Of The American Academy Of Child And Adolescent Psychiatry*, (3), 325.

Streeck-Fischer, A., & van der Kolk, B. A. (2000). Down will come baby, cradle and all: Diagnostic and therapeutic implications of chronic trauma on child development. *Australian and New Zealand Journal of Psychiatry*, *34*(6), 903-918.

Substance Abuse and Mental Health Services Administration. (2017). *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health* (HHS Publication No. SMA 17-5044, NSDUH Series H-52). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

Suldo, S. M. (2016). *Promoting student happiness: Positive psychology interventions in schools*. New York: Guilford.

Suldo, S. M. & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review, 37*, 52-68.

Suldo, S. M., Thalji-Raitano, A., Kiefer, S. M., & Ferron, J. M. (2016). Conceptualizing high school students' mental health through a dual-factor model. *School Psychology Review*, *45*(4), 434-457.

Szabó, M. (2010). The short version of the Depression Anxiety Stress Scales (DASS-21): Factor structure in a young adolescent sample. *Journal of Adolescence*, *33*1-8.

Szabó, M., & Lovibond, P. F. (2006). Anxiety, depression, and tension/stress in children. *Journal of Psychopathology and Behavioral Assessment, 3*, 192.

Teddlie, C., & Tashakkori, A. (2008). *Foundations of mixed methods research –*

Integrating quantitative and qualitative approaches in the social and behavioral sciences. Thousand Oaks, CA: Sage.

Terrell, N. (1997). Street life: aggravated and sexual assaults among homeless and runaway adolescents. *Youth & Society*, *28*(3), 267-290.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 59*(2-3), 25–52, 250–283.

Thompson, S. J., Bender, K., Windsor, L., Cook, M. S., & Williams, T. (2010). Homeless youth: characteristics, contributing factors, and service options. *Journal of Human Behavior In The Social Environment*, *20*(2), 193-217. doi:10.1080/10911350903269831

Thompson, S. J., Pollio, D. E., & Bitner, L. (2000). Outcomes for adolescents using runaway and homeless youth services. *Journal of Human Behavior in the Social Environment*, *3*(1), 79-97.

Thompson, S. J., Pollio, D. E., Constantine, J., Reid, D., & Nebbitt, V. (2002). Short-term outcomes for youth receiving runaway and homeless shelter services. *Research on Social Work Practice, 12*(5), 589–603.

Thompson, S. J., Pollio, D. E., Eyrich, K., Bradbury, E., & North, C. S. (2004). Successfully exiting homelessness: experiences of formerly homeless mentally ill individuals. *Evaluation And Program Planning*, *27*423-431.

Tronick, E., & Reck, C. (2009). Infants of depressed mothers. *Harvard Review of Psychiatry*, *17*(2), 147–156.

Tull, M. T., & Gratz, K. L. (2008). Further examination of the relationship between anxiety

sensitivity and depression: The mediating role of experiential avoidance and difficulties engaging in goal-directed behavior when distressed. *Journal of Anxiety Disorders*, *22*(2), 199–210.

Tyler, K.A., Gervais, S.J., & Davidson, M.M. (2013). The relationship between victimization and substance use among homeless and runaway female adolescents. *Journal of Interpersonal Violence, 28 3*, 474-93 .

Tyler, K., Melander, L., & Almazan, E. (2010). Self injurious behavior among homeless young adults: A social stress analysis. *Social Science & Medicine*, *70*(2), 269-276.

Tyler, K. A., & Schmitz, R. M. (2013). Family histories and multiple transitions among homeless young adults: Pathways to homelessness. *Children and Youth Services Review*, *35*(10), 1719. doi:10.1016/j.childyouth.2013.07.014

Tyler, K. A., & Schmitz, R. M. (2020). Childhood disadvantage, social and psychological stress, and substance use among homeless youth: A life stress framework. *Youth & Society*, *52*(2), 272–287.

Uher, R., & McGuffin, P. (2010). The moderation by the serotonin transporter gene of environmental adversity in the etiology of depression: 2009 update. *Molecular psychiatry*, *15*(1), 18-22.

Unger, J. B., Kipke, M. D., Simon, T. R., Johnson, C. J., Montgomery, S. B., & Iverson, E. (1998). Stress, coping, and social support among homeless youth. *Journal of Adolescent Research*, (2). 134.

U.S. Department of Education (2004). *Education for Children and Youth Program, Title VII-B of the McKinney-Vento Homeless Assistance Act, As Amended by the No Child Left Behind Act of 2001, Non-regulatory Guidance.* https://www2.ed.gov/programs/homeless/

guidance.pdf

U.S. Department of Education (2014). *Education for Homeless Children and Youth Consolidated Data: School Years 2010-11, 2011-12, 2012-13.* Retrieved from: http://center.serve.org/nche/pr/data_comp.php

U.S. Department of Housing and Urban Development (2017). *The 2016 annual homeless assessment report (AHAR) to Congress. https://files.hudexchange.info/resources/documents/2016-AHAR-Part-1.pdf*

U.S. Department of Housing and Urban Development (2019). *The 2018 annual homeless assessment report (AHAR) to Congress. https://files.hudexchange.info/resources/documents/2018-AHAR-Part-1.pdf*

U.S. Department of Housing and Urban Development (2020). *The 2019 annual homeless assessment report (AHAR) to Congress. https://files.hudexchange.info/resources/documents/2019-AHAR-Part-1.pdf*

Votta, E., & Manion, I. (2004). Suicide, high-risk behaviors, and coping style in homeless adolescent males' adjustment. *Journal of Adolescent Health*, (3). 237.

Watson, D., Clark, L. A., Weber, K., Assenheimer, J. S., Strauss, M. E., & McCormick, R. A. (1995). Testing a tripartite model: II. Exploring the symptom structure of anxiety and depression in student, adult, and patient samples. *Journal of Abnormal Psychology*, *104*, 15–25.

Weems, C. F., Hammond-Laurence, K., Silverman, W. K., & Ginsburg, G. S. (1998). Testing the utility of the anxiety sensitivity construct in children and adolescents referred for anxiety disorders. *Journal of Clinical Child Psychology*, *27*(1), 69-77.

Whiffen, V.E. & MacIntosh, H.B. (2005). Mediators of the link between childhood sexual abuse and emotional distress: A critical review. *Trauma, Violence & Abuse*, *6*(1), 24.

Whitbeck, L. B., Chen, X., Hoyt, D. R., Tyler, K. A., & Johnson, K. D. (2004). Mental disorder, subsistence strategies, and victimization among gay, lesbian, and bisexual homeless and runaway adolescents. *Journal of Sex Research*, *41*(4), 329-342.

Whitbeck, L. B., Johnson, K. D., Hoyt, D. R., & Cauce, A. M. (2004). Mental disorder and comorbidity among runaway and homeless adolescents. *Journal of Adolescent Health, 35*(2), 132–140.

Williams, L. M., Gatt, J. M., Schofield, P. R., Olivieri, G., Peduto, A., & Gordon, E. (2009). 'Negativity bias' in risk for depression and anxiety: Brain–body fear circuitry correlates, 5-HTT-LPR and early life stress. *Neuroimage*, *47*(3), 804-814.

Williams, A., Helm, H., & Clemens, E. (2012). The effect of childhood trauma, personal wellness, supervisory working alliance and organizational factors on vicarious traumatization. *Journal of Mental Health Counseling*, 34, 133-153.

Wong, C. F., Clark, L. F., & Marlotte, L. (2016). The impact of specific and complex trauma on the mental health of homeless youth. *Journal of Interpersonal Violence*, *5*, 831.

Yu, M., North, C. S., LaVesser, P. D., Osborne, V. A., & Spitznagel, E. L. (2008). A comparison study of psychiatric and behavior disorders and cognitive ability among homeless and housed children. *Community Mental Health Journal*, *44*(1), 1-10.

Yusof, N., Ang, R. P., & Oei, T. P. S. (2017). The psychometric properties of the School Engagement Measure in adolescents in Singapore. *Journal of Psychoeducational Assessment*, 35(5), 521–533.

Zu, S., Xiang, Y. T., Liu, J., Zhang, L., Wang, G., Ma, X., Kilbourne, A. M., Ungvari, G. S.,

Chiu, H. F., Lai, K. Y., Wong, S. Y., Yu, D. S., & Li, Z. J. (2014). A comparison of cognitive-behavioral therapy, antidepressants, their combination and standard treatment for Chinese patients with moderate-severe major depressive disorders. *Journal of Affective Disorders*, *152-154*, 262–267.

Appendix A

Recruitment Flyer

Appendix B

Informed Consent Script

Script for Obtaining Verbal Informed Consent

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. We are asking you to take part in a research study that is called: Starting Right, Now Longitudinal Study

The person who is in charge of this research study is Dr. Linda Raffaele Mendez. This person is called the Principal Investigator.

You are being asked to participate because you may be accepted into the Starting Right, Now program. The purpose of this study is to learn more about the impact of SRN on the lives of students involved in the program. Specifically, we are interested in learning more about how your attitudes, beliefs, health, and experiences change as a result of your participation in SRN. This information will add to the research on programs that help homeless youth achieve their goals and break the cycle of poverty.

If you take part in this study, you will be asked to complete a packet of surveys every six months for the next 18 months. Survey questions will ask you about your health, attitudes, beliefs, and experiences. Each survey packet will take approximately 15-30 minutes to complete. The first packet of surveys will be completed using paper and pencil. You will take the surveys at your school in the room where you meet with SRN staff. These surveys will be administered immediately after you sign your contract with SRN. The remaining three survey packets will be completed using a computer-based survey program. You will take these surveys at the SRN office in [redacted]. SRN staff will remind you when it is time for you to take these surveys. You have the alternative to choose not to participate in this research study.

You should only take part in this study if you want to volunteer and should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not will not affect your enrollment in SRN. Your decision to participate will not affect your potential enrollment and future success as a student at the University of South Florida if you ultimately choose to apply for admission to the university.

This research is considered to be minimal risk.
We will not pay you for the time you volunteer while being in this study.

We must keep your study records as confidential as possible. We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. However, certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

• The research team, including the Principal Investigator and all other research staff.
• Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.) These include:

- The University of South Florida Institutional Review Board (IRB) and the staff that work for the IRB. Other individuals who work for USF that provide other kinds of oversight may also need to look at your records.
- The Department of Health and Human Services (DHHS).

A federal law called Title IX protects your right to be free from sexual discrimination, including sexual harassment and sexual violence. USF's Title IX policy requires certain USF employees to report sexual harassment or sexual violence against any USF employee, student or group, but does not require researchers to report sexual harassment or sexual violence when they learn about it as part of conducting an IRB-approved study. If, as part of this study, you tell us about any sexual harassment or sexual violence that has happened to you, including rape or sexual assault, we are not required to report it to the University. If you have questions about Title IX or USF's Title IX policy, please call USF's Office of Diversity, Inclusion & Equal Opportunity

at (813) 974-4373.

If you have any questions about this study, you can contact the investigator, Dr. Linda Raffaele Mendez at 813-974-1255. If you have question about your rights as a research participant please contact the USF IRB at 813-974-5638.

Would you like to participate in this study? *PI will record if verbal consent is given.*

Appendix C

Verbal Assent Script

Script for Obtaining Verbal Assent

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. We are asking you to take part in a research study that is called: Starting Right, Now Longitudinal Study

The person who is in charge of this research study is Dr. Linda Raffaele Mendez. This person is called the Principal Investigator.

You are being asked to participate because you may be accepted into the Starting Right, Now program. The purpose of this study is to learn more about the impact of SRN on the lives of students involved in the program. Specifically, we are interested in learning more about how your attitudes, beliefs, health, and experiences change as a result of your participation in SRN. This information will add to the research on programs that help homeless youth achieve their goals and break the cycle of poverty.

If you take part in this study, you will be asked to complete a packet of surveys every six months for the next 18 months. Survey questions will ask you about your health, attitudes, beliefs, and experiences. Each survey packet will take approximately 15-30 minutes to complete. The first packet of surveys will be completed using paper and pencil. You will take the surveys at your school in the room where you meet with SRN staff. These surveys will be administered immediately after you sign your contract with SRN. The remaining three survey packets will be completed using a computer-based survey program. You will take these surveys at the SRN office in [redacted] SRN staff will remind you when it is time for you to take these surveys. You have the alternative to choose not to participate in this research study.

If you do not want to take part in this study, that is your decision. You should only take part in this study because you want to volunteer. If you decide to take part in this study, you still have the right to change your mind later. No one will think badly of you if you decide to stop participating. Your decision to participate or not will not affect your enrollment in SRN. Your decision to participate will not affect your potential enrollment and future success as a student at the University of South Florida if you ultimately choose to apply for admission to the university.

To the best of our knowledge, your participation in this study will not harm you. We will not pay you for the time you volunteer while being in this study.

We must keep your study records as confidential as possible. We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. However, certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

• The research team, including the Principal Investigator and all other research staff.
• Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.) These include:

- The University of South Florida Institutional Review Board (IRB) and the staff that work for the IRB. Other individuals who work for USF that provide other kinds of oversight may also need to look at your records.
- The Department of Health and Human Services (DHHS).

A federal law called Title IX protects your right to be free from sexual discrimination, including sexual harassment and sexual violence. USF's Title IX policy requires certain USF employees to report sexual harassment or sexual violence against any USF employee, student or group, but does not require researchers to report sexual harassment or sexual violence when they learn about it as part of conducting an IRB-approved study. If, as part of this study, you tell us about any sexual harassment or sexual violence that has happened to you, including rape or sexual assault, we are not required to report it to the University. If you have questions about Title IX or USF's Title IX policy, please call USF's Office of Diversity, Inclusion & Equal Opportunity at (813) 974-4373.

You can ask questions about this study at any time. You can talk with your parent(s)/guardian or other adults about this study. You can talk with the person who is asking you to volunteer by calling Dr. Linda Raffaele Mendez at 813-974-1255. If you think of other questions later, you can them. If you have question about your rights as a research participant please contact the USF IRB at 813-974-5638.

Would you like to participate in this study? *PI will record if verbal consent is given.* .

Appendix D

IRB Approval

USF
UNIVERSITY OF
SOUTH FLORIDA

RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX(813)974-7091

11/16/2015

Linda Raffaele Mendez, Ph.D.
USF Department of Educational and Psychological Studies
4202 E. Fowler Avenue, EDU 162
Tampa, FL 33620

RE: **Expedited Approval for Initial Review**
IRB#: Pro00023832
Title: A Longitudinal Study of Students in Starting Right, Now

Study Approval Period: 11/14/2015 to 11/14/2016

Dear Dr. Raffaele Mendez:

On 11/14/2015, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents contained within, including those outlined below.

Approved Item(s):
Protocol Document(s):
SRN IRB Protocol.docx

Consent/Assent Document(s):
Child Verbal Assent Form.docx
Adult Verbal Consent Form.docx

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your study qualifies for a waiver of the requirements for the informed consent process as outlined in the federal regulations at 45CFR46.116 (d) which states that an IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent, or waive the requirements to obtain informed consent provided the IRB finds and documents that (1) the research involves no more than minimal risk to the subjects; (2) the waiver or alteration will not adversely affect the rights and welfare of the subjects; (3) the research could not practicably be carried out without the waiver or alteration; and (4) whenever appropriate, the subjects will be provided with additional pertinent information after participation.

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117(c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

This study involving data pertaining to children falls under 45 CFR 46.404 – Research not involving greater than minimal risk.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board

UNIVERSITY of SOUTH FLORIDA

APPROVAL

October 1, 2020

Camille Randle
11303 N. 50th St.
Apt: 1
Tampa, FL 33617

Dear Ms. Camille Randle:

On 10/1/2020, the IRB reviewed and approved the following protocol:

Application Type:	Initial Study
IRB ID:	STUDY001502
Review Type:	Expedited 6, 7
Title:	Mental Health and School Engagement Among Unaccompanied Homeless Youth: Changes after Six Months and One Year in a Multifaceted, Community-Based Intervention Called Starting Right, Now
Approved Protocol:	• HRP-503a-Randle IRB application 9.7.20;

Within 30 days of the anniversary date of study approval, confirm your research is ongoing by clicking Confirm Ongoing Research in BullsIRB, or if your research is complete, submit a study closure request in BullsIRB by clicking Create Modification/CR.

Your study qualifies for a waiver of the requirements for the informed consent process for secondary analysis of existing data as outlined in the federal regulations at 45 CFR 46.116(f).

Research Involving Children as Subjects: 45 CFR 46.404

This research involving children as participants was approved under 45 CFR 46.404: Research not involving greater than minimal risk to children is presented.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

Jennifer Walker
IRB Research Compliance Administrator

Appendix E

Informed Consent for SRN Staff Member

Informed Consent to Participate in Research Involving Minimal Risk

Pro # _____

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called:
A Longitudinal Study of Students in Starting Right, Now
The person who is in charge of this research study is Linda Raffaele Mendez**.** This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge.

The research will be conducted at the SRN office in [redacted]

Purpose of the study

The purpose of this study is to examine changes over time in mental health and associated variables among students who participate in Starting Right, Now.

Why are you being asked to take part?

We are asking you to take part in this research study because we would like to understand if mental health is a factor in students leaving or being dismissed from SRN.

Study Procedures:

If you take part in this study, you will be asked to:

- Participate in an approximately 60 minute interview with Dr. Raffaele Mendez. She will provide you with the dates of entry for students who do not have data at time points 2, 3, or 4 in the longitudinal study she has been conducting. For each of these students, she will ask you two questions:
  1. To what degree do you believe that mental health issues (e.g., depression, anxiety, etc.) were a factor in this student leaving or being dismissed from SRN? If you believe mental health issues were a factor, please explain what happened with the student.
  2. In retrospect, do you believe that you or other SRN staff could have done something different to avoid having the student drop or be dismissed from the program?

Number of Participants

About 100 individuals will take part in this study at USF, although we will only be asking you the questions above for the approximately 8-10 students for whom we do have data at time points 2, 3, and/or 4.

Alternatives / Voluntary Participation / Withdrawal

You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

Benefits

You will receive no benefit(s) by participating in this research study.

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Costs

It will not cost you anything to take part in the study.

Privacy and Confidentiality

We will do our best to keep your records private and confidential. We cannot guarantee absolute

confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. These individuals include:

- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff. Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way.
- Any agency of the federal, state, or local government that regulates this research.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

Your personal information collected for this research will be kept as long as it is needed to conduct this research. Once your participation in the research is over, your information will be stored in accordance with applicable policies and regulations. Your permission to use your personal data will not expire unless you withdraw it in writing. You may withdraw or take away your permission to use and disclose your information at any time. You do this by sending written notice to the Principal Investigator at the following address:

While we are conducting the research study, we cannot let you see or copy the research information we have about you. After the research is completed, you have a right to see the information about you, as allowed by USF policies.
If you have concerns about the use or storage of your personal information, you have a right to lodge a complaint with the data supervisory authority in your country.

You can get the answers to your questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, or experience an unanticipated problem, call Linda Raffaele Mendez at [redacted]

If you have questions about your rights as a participant in this study, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu.

Consent to Take Part in this Research Study

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____ _____

Signature of Person Taking Part in Study Date

_____
Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_____ _____
Signature of Person obtaining Informed Consent Date

_____
Printed Name of Person Obtaining Informed Consent

Appendix F

Interview Protocol for SRN Staff Member

Interview Protocol for SRN Staff Member

Introduction: *Thank you so much for meeting with me today. As you know, we have been collecting data on mental health among students in SRN every 6 months. In collecting this data, we have noted that some students do not have data at time points subsequent to baseline (i.e., when they entered the program). We want to better understand why they may no longer be in the program and whether their leaving or being dismissed may have to do with mental health issues. Some students may still be in the program but have chosen to no longer participate in the research.*

For each student for whom we do not have data at time point 2, 3, and/or 4, I will give you the student's date of entry into SRN. I would ask you to look up which student entered the program on that day and whether the student is still in the program. For students who are no longer in the program, I would ask you to answer the following two questions:

1. To what degree do you believe that mental health issues (e.g., depression, anxiety, etc.) were a factor in this student leaving or being dismissed from SRN? If you believe mental health issues were a factor, please explain what happened with the student.
2. In retrospect, do you believe that you or other SRN staff could have done something different to avoid having the student drop or be dismissed from the program?

I will not be able to share any of the students' completed data with you, and I ask that you not share the student's name or any identifying information with me. Rather, I would ask that you only answer the above questions using the student's preferred pronoun (e.g., he, she).

(Administer consent form here.)

If consent is obtained, then I will provide the dates of entry for students who are missing data from time points 2, 3, and/or 4 and pose the two questions above.

Appendix G

Demographics Questionnaire

ID Number_____ Birthdate: _____(month)- _____(day)- _____(year)

PLEASE READ EACH QUESTION AND CIRCLE **ONE** ANSWER PER QUESTION:

1. I am in grade: 9 10 11 12

2. My gender is: Male Female

3. My race/ethnic identity is:
   a. American Indian or Alaska Native
   b. Asian
   c. Black or African American
   d. Hispanic or Latino
   e. Native Hawaiian or Other Pacific Islander
   f. White
   g. Multi-racial (please specify):_____
   h. Other (please specify):_____

Appendix H

Depression, Anxiety, and Stress Scale- 21 items

This measure is available in the public domain from:

Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression Anxiety & Stress Scales. (2nd Ed.) Sydney: Psychology Foundation.

In the past week, how much has each of the following statements applied to you?	Not at all	Some of the Time	A lot of the Time	All of the Time
1. I found it hard to wind down.	0	1	2	3
2. I had dryness in my mouth.	0	1	2	3
3. I didn't have any positive feelings at all.	0	1	2	3
4. I had difficulty breathing (e.g., rapid breathing or breathlessness in the absence of physical exertion).	0	1	2	3
5. I found it difficult to be motivated to do things.	0	1	2	3
6. I tended to over-react to situations.	0	1	2	3
7. I experienced trembling in my hands.	0	1	2	3
8. I felt like I had a lot of nervous energy.	0	1	2	3
9. I was worried about situations when I might panic or make a fool of myself.	0	1	2	3
10. I felt like I had nothing to look forward to.	0	1	2	3
11. I felt agitated.	0	1	2	3
12. I found it difficult to relax.	0	1	2	3
13. I felt down-hearted and sad.	0	1	2	3
14. I was intolerant of anything that got in my way.	0	1	2	3
15. I felt close to panicking.	0	1	2	3
16. I wasn't enthusiastic about anything.	0	1	2	3
17. I felt like I wasn't worth much as a person.	0	1	2	3
18. I felt irritable.	0	1	2	3
19. I noticed my heartbeat in the absence of physical exertion (e.g., racing heart, heart skipping a beat).	0	1	2	3
20. I felt scared without a good reason.	0	1	2	3
21. I felt my life was meaningless.	0	1	2	3

*note: Items 3, 5, 10, 13, 16, 17, and 21 are included in the Depression scale. Items 2, 4, 7, 9, 15, 19, and 20 are included in the Anxiety scale. Items 1, 6, 8, 11, 12, 14, and 18 are included in the Stress scale.

Appendix I

Emotion Regulation Questionnaire

This measure is available in the public domain from:

Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. Journal of Personality and Social Psychology, 85, 348-362.

Please indicate how closely each statement matches your feelings.

	Strongly Disagree			**Neutral**			**Strongly Agree**
1. When I want to feel more *positive* emotion (such as joy or amusement), I *change <u>what</u> I'm thinking about.*	1	2	3	4	5	6	7
2. I keep my emotions to myself	1	2	3	4	5	6	7
3. When I want to feel less *negative* emotion (such as sadness or anger), I *change <u>what</u> I'm thinking about.*	1	2	3	4	5	6	7
4. When I am feeling *positive* emotions, I am careful not to express them.	1	2	3	4	5	6	7
5. When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.	1	2	3	4	5	6	7
6. I control my emotions by *not expressing them.*	1	2	3	4	5	6	7
7. When I want to feel more *positive* emotion, I *change <u>the way</u> I'm thinking* about the situation.	1	2	3	4	5	6	7
8. I control my emotions by *changing the way I think about* the situation I'm in.	1	2	3	4	5	6	7
9. When I am feeling *negative* emotions, I make sure not to express them.	1	2	3	4	5	6	7
10. When I want to feel less *negative* emotion, I *change <u>the way</u> I'm thinking* about the situation.	1	2	3	4	5	6	7

*Note: Items 1, 3, 5, 7, 8, 10 are included in the Cognitive Reappraisal scale. Items 2, 4, 6, 9 are included in the Expressive Suppression scale.

Appendix J

School Engagement Scale

This measure is available in the public domain from:

Fredericks, J.A., Blumenfeld, P., Friedel, J., & Paris, A. (2005). School engagement. In K.A. Moore & L. Lippman (Eds.), What do children need to flourish?: Conceptualizing and measuring indicators of positive development. New York, NY: Springer Science and Business Media.

Please indicate how closely each statement matches your feelings.

	Never	On Occasion	Some of the Time	Most of the Time	All of the Time
1. I pay attention in class.	1	2	3	4	5
2. When I am in class I just act as if I am working.	1	2	3	4	5
3. I follow the rules at school.	1	2	3	4	5
4. I get in trouble at school.	1	2	3	4	5
5. I feel happy in school.	1	2	3	4	5
6. I feel bored in school.	1	2	3	4	5
7. I feel excited by the work in school.	1	2	3	4	5
8. I like being at school.	1	2	3	4	5
9. I am interested in the work at school.	1	2	3	4	5
10. My school is a fun place to be.	1	2	3	4	5
11. When I read a book, I ask myself questions to make sure I understand what it is about.	1	2	3	4	5
12. I study at home even when I don't have a test.	1	2	3	4	5
13. I try to watch TV shows about things we are doing in school.	1	2	3	4	5
14. I check my school work for mistakes.	1	2	3	4	5
15. I read extra books to learn more about things we do in school.	1	2	3	4	5

*Note: Items 1-15 are included in the Total Engagement scale. Items 1- 4 are included in the Behavioral Engagement scale. Items 5- 10 are included in the Emotional Engagement scale. Items 11-15 are included in the Cognitive Engagement scale. Items 2, 4, and 6 are reverse scored.

Appendix K

Percentage of Participants in Sample B ($N = 10$) by DASS-21 Severity Label Groups at Each Study Time Points

Percentage of Participants in Sample B by Severity Label on the DASS-21 Depression Subscale

Severity Label of Depression	Time 1 %	Time 2 %	Time 3 %
Normal	30	90	60
Mild	40	10	10
Moderate	10	0	10
Severe	20	0	20
Extremely Severe	0	0	0

Percentage of Participants in Sample B by Severity Label on the DASS-21 Anxiety Subscale

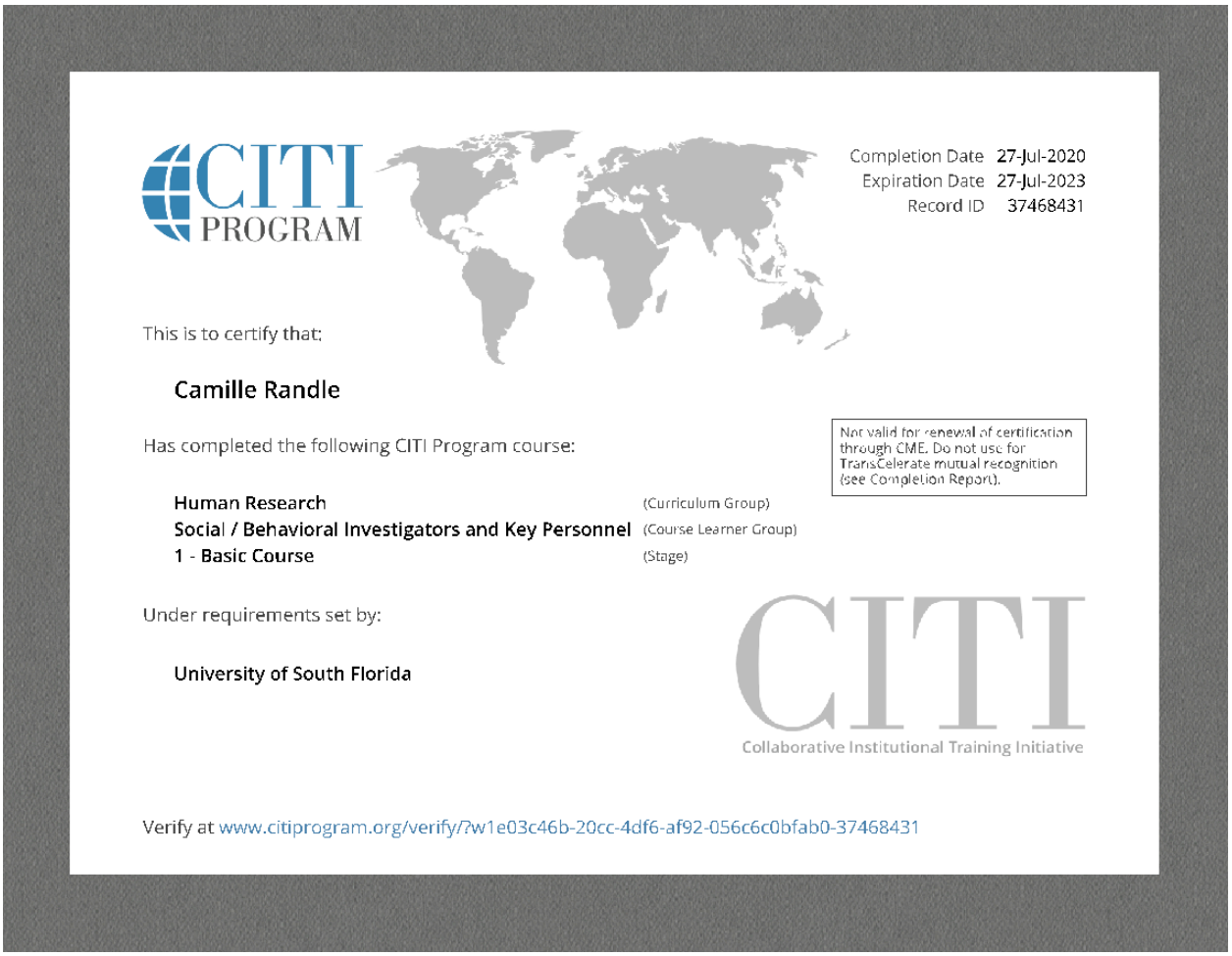
Severity Label of Anxiety	Time 1 %	Time 2 %	Time 3 %
Normal	40	50	70
Mild	0	10	0
Moderate	40	30	0
Severe	0	10	20
Extremely Severe	20	0	10

Percentage of Participants In Sample B by Severity Label on the DASS-21 Stress Subscale

Severity Label of Stress	Time 1 %	Time 2 %	Time 3 %
Normal	30	80	70
Mild	30	10	10
Moderate	10	10	10
Severe	30	0	0
Extremely Severe	0	0	10

Appendix L

CITI Program: Human Research Certification



CITI PROGRAM

Completion Date 27-Jul-2020
Expiration Date 27-Jul-2023
Record ID 37468431

This is to certify that:

Camille Randle

Has completed the following CITI Program course:

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Human Research (Curriculum Group)
Social / Behavioral Investigators and Key Personnel (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

University of South Florida

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w1e03c46b-20cc-4df6-af92-056c6c0bfab0-37468431