DEVELOPMENTAL PERCEPTIONS OF WELL-BEING OF FEMALE ADOLESCENTS IN KENYA: LIFE EXPERIENCES AND RELATIONSHIPS WITH PSYCHOLOGICAL MEASURES

Allison Beth Weinstein, M.A.

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Approved by:

Steven Knotek

Rune J. Simeonsson

Sandra Evarrs

Peter Ornstein

Kylee Miller

ABSTRACT

ALLISON BETH WEINSTEIN: Developmental Perceptions of Female Adolescents in Kenya: Influences and Relationships with Psychological Measures
(Under the direction of Steven Knotek)

Poverty is a complex entity that impinges upon all aspects of human functioning. While both children and adolescents are particularly susceptible to the detrimental risk factors that poverty creates, adolescents are faced with a unique set of social and emotional challenges as a result of the developmental processes that occur. Female adolescents in the Sub-Saharan region of Africa are presented with the universal experiences of adolescence as well as the distinct facets of cultural expectations and gender norms. This study investigated perceived well-being in female adolescents living in an impoverished informal urban settlement called Kibera, located in in Nairobi, Kenya. Self-reported positive and negative life experiences were explored to better understand life in Kibera as described by a population of adolescent females. In order to better understand developmental differences, age was divided into two subgroups, younger and older adolescents. Relationships between perceived well-being and performance on measures of psychological functioning across 3 domains (self-esteem, pro-social behavior and emotional stress) were then examined. Additionally, predictive relationships of variables on both well-being and self-esteem were explored. Results indicated that no significant differences exist between younger and older adolescents. A significant negative relationship was found between emotional stress and self-esteem. Further, no predictive relationships were indicated for well-being or self-esteem.

To my family, for the unconditional support, love and strength
that you have provided to me on this journey.

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LIST OF ABBREVIATIONS

CFK	Carolina for Kibera
DU	Daughters United
OES	Overall Emotional Stress
OSS	Overall SDQ Score
PBS	Pro-Social Behavior Score
PFS	Protective Factors Score
PSB	Pro-Social Behavior
RSS	Risk Factors Score
YSA	Youth Sports Association
WBS	Well-Being Score
YSA	Youth Sports Association

CHAPTER I

INTRODUCTION

There are approximately 2.2 billion children in the world. One billion of these children live in poverty (UNICEF, 2005). Poverty is a powerful entity that holds significant consequences for both child and adolescent development, depriving children of the necessary means essential to survival and development. The National Center for Children in Poverty (2014) identifies poverty as the single greatest threat to a child's development. Growing up in a poverty-rich environment is damaging to global development and well-being affecting all domains of functioning. A considerable amount of environmental risk factors have been identified to inhibit healthy development, including malnutrition and poor health, lack of adequate schooling and access to resources, home instability, and insufficient stimulation within the environment. These factors are detrimental to a child's physical, cognitive, social and emotional adjustment and development (Evans & Kim, 2007). Children exposed to acute poverty and experience the associated consequences are at risk for developing maladaptive behaviors and lifestyle patterns (e.g. violence, substance abuse, early onset pregnancy, school dropout) set them up for a bleak future and continue the cycle of intergenerational poverty (Eamon 2001).

Protective and resilience factors may act as mediators to negative developmental outcomes. In addition to individual characteristics, these factors include a sense of future orientation, involvement in community youth programming, parental support and

involvement, self-esteem, social competency, sense of belonging, and perceived social support. The presence or absence of these factors in a child or adolescents life, despite the number of present risk factors, may be a significant contributor to his/her well-being.

The combination of both risk and protective factors that cumulate into one's life experiences heavily determines one's sense of well-being. Perceptions of well-being are often formed through both positive and negative life experiences. Well-being is a particularly complex construct when exploring psychological functioning in adolescence, given the unique stage of development. Greater perceptions of well-being allow for the potential to develop and acquire the necessary skills that contribute to psychological resiliency despite an impoverished environment full of developmental risks, such as in regions with acute urban poverty.

Adolescents in Sub-Saharan Africa are presented unique challenges in the face of poverty, culture and societal norms. Females in particular are faced with gender expectations that further hinder their quality of life and pose additional risk factors. While females are expected to defer to men, they are at greater risk for rape, early pregnancy, decreased access to education and lower literacy rates when compared to women in cultures with high levels of gender equality. The complex challenges for females in this region of Africa allow for reduced psychological well-being and perceptions of self.

The current study aims to evaluate well-being in adolescent females in Kibera. The study intended to examine both the as well as the association between perceptions of well-being and measures of psychological well-being. Psychological measures evaluated three general areas: self-esteem, pro-social behavior and overall emotional stress. This study seeks to inform the literature on developmental perceptions of well-being of adolescent females in the region of Sub-

Saharan Africa. This study hopes demonstrate on the power of experiences as resiliency on emotional health in the face of acute urban poverty.

CHAPTER II

LITERATURE REVIEW

Risk Factors of Urban Poverty

Poverty impinges upon all aspects of human functioning. Children and adolescents are particularly susceptible to the environmental demands of poverty. The immature body and brain are continuously growing and remain malleable to input from every source of exposure. The effect is global; the impact of poverty is not limited to an individual area of development. Thus, it is vital to understand the complex ways in which acute urban poverty influence child growth across all domains of life.

Physical Development. Conditions of extreme poverty powerfully impact the physical growth of children and adolescents. For example, an approximated 28% of children in developing countries are underweight or have stunted growth. South Asia and sub-Saharan Africa account for a significant proportion of this inadequacy (UN, 2007). A lack of resources in impoverished areas and developing countries such as food and clean water largely contribute to the stunted and delayed physical development of youth in these areas. The World Health Organization (2014) identified childhood malnutrition and substandard water and sanitation as prevalent consequences of absolute poverty, generating over 1.5 million child deaths each year.

An association between socioeconomic status and a disparity in health outcomes throughout the life span has repeatedly been identified in previous literature (Layte & McCrory, 2012). There are enormously high numbers of children who experience poor physical health as a result of limited access to health services. When these children do receive health care, the

services are of inadequate quality at best. According to the According to the United Nations Development Programme human development reports (2007), 270 million children worldwide do not have access to health services. Many health conditions that develop as a result of poverty and limited access to health care would be otherwise treatable. Infectious disease is a spiraling consequence of absolute poverty that could be treatable with available medical resources. For example, malaria affects an estimated 350-500 victims each year, with African children accounting for over 80 percent of malaria victims worldwide (HDR, 2007).

Impoverished living conditions also significantly impacts access to adequate nutrition. Poor nutrition in childhood lends to both short-term and long-term negative consequences including weak immune system and higher disease-carrying rate (Nelson, 2000). While the physical health consequences are significant, negative outcomes of poor nutrition and disease hold large implications for other areas of functioning and development. When physical development is impaired, cognitive functioning is affected as well. Research demonstrates that physical illness and poor nutrition impacts a child's ability to concentrate, think logically, and perform well academically. Layte & McCrory (2013) found that physical illness in childhood and adolescence may significantly impact educational development, thereby effecting life chances in the future. A strong connection between poor health in adolescence and educational attainment can damage future financial and employment opportunities (Haas, 2006).

Psychological adjustment may also be jeopardized by poor physical health and illness (Layte & McCrory, 2013). Physical development not only impact cognitive functioning, but social-emotional development of youth as well. Cadman, Boyle, Szatmari & Offord (1987) found that children impaired physically are more likely to exhibit emotional and behavioral

problems. Non-educational or cognitive skills, such as navigating relationships and building social competency and emotional regulation, are important components of development. The development of such skills is impacted by poor physical development, contributing to a global deficit of functioning (Heckman & Rubenstein, 2001).

Cognitive Development. Poor nutrition and insufficient health care adversely affects the mind as well as the body. According to Nelson (2000), lack of adequate nutrition is associated with poorer cognitive functioning and meager learning ability. Exposure to the various risk factors that come from living in poverty predisposes children to cognitive vulnerability. Chronic poverty has been identified as the most critical component in a child's cognitive developmental trajectory. While short, more temporary spans of poverty do play a role in a child's developmental outcome, it is the persistent and on-going nature of an impoverished upbringing that provides the greatest threat to a child's cognitive functioning (Naiman, et. al, 2009; Schoon, et. al, 2012). Barbarin and Richter (1999) found that even when children exposed to extreme levels of poverty are provided with education, they demonstrate lower academic achievement. This draws to attention the devastating effects poverty in developing countries has on their youth. Being unable to break the hideous chain of poverty, many societies throughout the world continue to lack the resources to pull their children out of a state of chronic poverty, therefore deeply impacting new generations.

The environment of poverty, especially in the developing world, acts as a significant roadblock to receiving a formal education. UNICEF (2005) reported that 121 million children are deprived of education worldwide. Further, almost 72 million primary-school-aged children in developing countries did not attend school in 2005, and 57% of these children were girls. It is important to note that these numbers are an underestimation of the actual number of children

who do not attend school, despite reported enrollment. In addition, there is no official data on children's school enrollment and attendance in countries involved in conflict situations (United Nations, 2007). Statistics of enrollment would be significantly less promising if these numbers reflected the unreported data.

Lack of education has serious implications for children's long-term development, which impedes a promising future. An abundance of literature identifies the importance of an early childhood education on a child's developmental progression. In fact, a high-quality early-childhood education may alleviate some of the debilitating effects of an impoverished upbringing. Barnett (1998) found that early childhood education is not just critical for short-term development, but holds significant long-term effects as well. IQ, achievement, and academic success outcomes were measured to identify the nature of early education implications; results revealed that early education produced significant effects on both achievement and success. This is indicative of the role of environment and on cognitive performance. Children living in absolute poverty, particularly in the developing world, often times lack access to early childhood education, and high-quality programs are seemingly non-existent. Without this crucial developmental piece, impoverished children are set up for serious risk of cognitive deficits that are directly related to an inadequate, or nonexistent early education. Further, exposure to chronic poverty and associated risk factors is predictive of children's performance on measures of executive functioning (Raver et. al, 2013). This suggests that while poverty puts children at risk for global cognitive disadvantage, it also extends to specific cognitive processes such as reasoning, flexibility, and working memory.

Social-Emotional Development. Palmer et al (2013) described social emotional development as the capacity to establish secure relationships with peers and adults, self-

regulation and expression of emotions in a socially appropriate way, and learn through the environment within the context of the community and culture. Poverty and associated factors, such as education and home life, impact a child's social-emotional development. A child's relationship with his/her parent(s) or primary caregiver plays heavily into the social-emotional competency that a child develops. As social development is learned significantly through social interactions and modeling, a parents interactions with his/her child may shape his/her development. Both direct and indirect stressors resulting from acute poverty exposure in infancy are suggested to endorse social and emotional problems in toddlerhood, childhood, and even adolescence (Palmer et al, 2013). Stressors of poverty such as income instability, chronic stress, and violence may affect a parent's ability to provide appropriate modeling and engage in developmentally appropriate parent-child interactions, thereby influencing a child's social development.

Children's social and emotional adjustment is heavily influenced by the context (e.g. family & community) in which they are part of (Burchinal & Willoughby, 2013). The personal and social assets necessary for positive development are fostered or suppressed depending upon the features that are present within settings in which youth live their lives (Catalano et al, 2004; Knotek, Weinstein, & Bankoski, 2014). Poverty is associated with persistent environmental strain, impacting the child's family and community relationship. Thus, poor children are at risk for developing an array of socio-emotional problems (Eamon, 2001). A poverty-ridden upbringing exposes individuals to a significant amount of environmental stressors that may give rise to stunted social and emotional development. According to Pearlin (1989), stressors refer to life circumstances that lead to stress. Chronic stressors such as persistent, cyclic poverty as opposed to discrete stressors such as a one-time income loss account for more significant levels

of psychological dysfunction and distress within poor populations. In addition, the multiple life stressors that children are exposed to as a consequence of poverty have a strong influence on a child's social-emotional adjustment due to the cumulative nature of risk factors.

Adolescents in Urban Poverty

Adolescents growing up in impoverished environments experience a unique array of risk factors that are distinct from other developmental stages. Poor housing conditions, family instability, and lack of adequate education are common components in at-risk environments, which pose daily challenges to adolescents (Cauce, Stewart, Rodriguez, Cochran, & Ginzler, 2003). According to Anthony (2008), youth in stages of older childhood and adolescence experience a greater level of risk in a difficult environment. For example, adolescents living in risky environments generated by poverty are more likely to engage in behaviors that lead to negative outcomes. These outcomes may include substance abuse, sexual behaviors, delinquency (e.g. violence) and academic problems leading to school failure.

Substance Abuse. Economic factors have been identified as a powerful determinant of an adolescents' involvement with and usage of drugs. Lower economic status and greater economic instability are related to a higher prevalence of drug abuse (Hawkins, Catalano, & Miller, 1992). Bachman (1981) found that drug use (e.g. hallucinogens, stimulants, cocaine, sedatives, heroine) was significantly lower amongst high school students who have college aspirations. Thus, having firm goals for the future may deter adolescents from engaging in risky behavior with drugs and alcohol.

Further, adolescent substance is influenced by rules that exist within a community. Laws and/or norms that govern a particular society play a key part in determining behaviors in that community. For example, it has been shown that restriction on the purchasing of alcohol (e.g.

strictness of drinking age) or how it is sold (e.g. by the bottle, closed container) is related to degree of alcohol consumption. Not surprisingly, more relaxed rules on the buying of alcohol are associated with an increased consumption of spirits, which leads to a greater frequency of alcohol-induced behaviors (e.g. drunk driving, violent tendencies). Unfortunately, looser norms and expectations for substance use tend to be more predominant in lower socioeconomic communities, increasing the risk by two-fold for adolescents in this type of environment. This puts adolescents in poverty as especially susceptible to indulgence of alcohol and drugs.

Sexual Behaviors. Adolescent females living in extreme poverty face particular risks that shape their fate. Girls are at risk for early-onset sexual activity that can lead to numerous complications and problems effecting development and well-being. This issue is often driven by gender inequality, violence against females, sexual exploitation and trafficking, devaluing of girls. This type of activity is common in areas of acute, persistent poverty, and leads to pregnancy and life-threatening sexually transmitted diseases such as HIV/AIDS.

Approximately 16 million adolescent girls give birth every year, and the representation of pregnancy in adolescence is higher in many sub-Saharan Africa countries than in other areas across the globe (Beguy, Ndugwa, & Kabiru, 2013). It is estimated that over 25% of women in sub-Saharan Africa have given birth before the age of 18 (United Nations Children Fund, 2012). Births amongst this age group commonly occur in poor, uneducated populations. For example, in Kenya, teenage pregnancy rates are higher amongst poorer households than wealthier households (Kenya National Bureau of Statistics (KNBS) & ICF Macro, 2010). Baumgartner, Geary, Tucker, & Wedderburn (2009) identified key components associated with early onset pregnancy, including low socioeconomic status, family instability, poor education, experience of physical abuse in childhood, low self-esteem, and absence of a father figure.

Childbearing during adolescence may lead to poor health outcomes for both the mother and the baby, as complications are more likely for children of adolescent mothers. For instance, prematurity, stillbirth, and low birth weight are particularly high for infants of young mothers. Further, mother and infant mortality rates as a result of giving birth are far higher amongst adolescent pregnancy (Beguy, Ndugwa, & Kabiru, 2013). Giving birth in environments with limited resources contributes to these health risks as result of poor health care facilities and lack of access to professionals who can provide proper assistance (Izugbara, Kabiru, & Zulu, 2009). Wendoh (2013) identifies pregnancy-related complications as a major cause of death of amongst girls between 15-19 years.

In addition to health consequences, pregnancy in adolescence contributes to negative educational outcomes, effecting prospects for the future. Beguy, Ndugwa, & Kabiru (2013). found that adolescent girls who complete secondary school delay the onset of pregnancy. Young mothers are more likely to drop out of school and end their educational endeavors. For those who continue schooling, their performance suffers. As a result, opportunities for employment reduce even more, continuing the cycle of poverty. Interestingly, engagement in sexual behaviors may be strongly influenced by community and peer attitudes. Kabiru et al., (2010) identified adolescents' sexual behavior as associated with the behaviors and attitudes of peers in both slum and non-slum communities in Nairobi. Thus, coupled with education, positive peer groups and social support may be a particularly important factor in delaying sexual behavior for adolescent girls in poverty.

Early on-set sexual behaviors and pregnancy is poses heighnted risk for sexually transmitted disease. For instance, sdolescent mothers are at significantly higher risk for receiving sexually transmitted diseases such as HIV (Beguy, Ndugwa, & Kabiru (2013). About half of the

world population living with HIV is women, and this number is raised for women living in sub-Saharan Africa (UNAIDS, 2011). In slum areas, the onset of HIV is even earlier than in the rest of the region (Gyimah et al., 2012). This region continues to remain the highest area affected by the viral epidemic, though numbers have fallen over recent years. However, adolescent females in dire conditions of poverty still remain at great risk for contracting the disease. Such individuals lack the basic education and access to information to make healthy choices and practice safe sex (Gyimah et al., 2012). While living with HIV/AIDS significantly impacts an individual's physical health, it affects mental health and psychological well-being as well. UNAIDS (2011) explained that in populations where the disease is widespread, feelings of fear and social disapproval are prevalent amongst the community. Unfortunately, this creates a stigma and discrimination towards those who are diagnosed. With the necessary protective factors to prevent sexual behavior, acquiring HIV/AIDS may be reduced, improving both the physical and psychological health and development of adolescent girls in poverty. Protective factors critical to the social emotional development of adolescent girls in poverty are described below.

Protective Factors and Resiliency

Fortunately, not all children living in profound poverty demonstrate poor outcomes. This differing degree in outcomes proposes that children and adolescents in poverty may have the potential to develop and function at high capacity, despite the detrimental environment. A number of resilience and protective factors have been identified as buffers to the dire consequences of urban poverty. When youth have protective assets that span across various categories (e.g. physical, intellectual, and psycho-social) they possess a foundation that can help them better transition from childhood to adolescence to adulthood (Garmezy, 1985; Knotek,

Weinstein, & Bankoski, 2014). Luckily, youth do not need to possess all of the numerous protective factors in order to thrive (Resnick. 2000; Rutter, 2012).

Despite pervasive and enduring exposure to risk, for some children the effects are not as devastating as outcomes experienced by others (Reyes et al, 2000). When children manage to stand strong and push forward against all the odds, they show resilience (Wright & Masten, 2005). There are a number of factors that are associated with resilience of youth living in acute urban poverty. Protective factors range from individual characteristics and personality traits to family and community conditions, interpersonal and social-emotional skills, as well interactions on the microsystem level (Anthony, 2008).

The impact of risk factors on a child's development may be moderated by protective factors within that child's environment. Harris and Marmer (1996) identified three domains of protective factors that contribute to positive outcomes for children at risk: a supportive family and positive relationship with at least one parental figure or family member, warm and supportive parenting, and the existence of positive of social support from non-family members that connect an individual to the greater community. In addition, acquiring coping skills for healthy adjustment may serve as an important shield to psychological risk factors associated with poverty (Harris and Marmer, 1996).

According to the National Research Council (2002), there are significant features of positive settings that promote youth development, including physical and psychological safety, appropriate structure, supportive relationships, opportunities to belong, positive social norms, support for mattering, opportunities for skill building, and an integration of community and family efforts. Opportunities to engage with these key features of positive settings are paramount to the process of acquiring qualities necessary for developing healthy adjustment and

well-being. Key variables of resiliency in the context of Kibera include: Future orientation, community program involvement, mentoring relationships, parental support and involvement, self-esteem, social competency, sense of belonging, and social support.

Future Orientation. The possibility of the future is a powerful notion that motivates behavior throughout the life span. While dreaming and planning for what is to come may provide a catalyst for hopeful thoughts and behaviors across an individuals' life, it may be most crucial and influential in the early adolescent years. Thinking about and planning for the future, whether short-term or long-term, significantly impact the trajectory of an individual's adult life and may be a powerful predictor of adult attainment (Nurmi, 1991). Goals, plans, dreams, aspirations, hopes, expectations, worries- these are all important mentalities for an adolescent to conceive of in order to generate encouragement and motivation for the future. Ling, et. al. (2015) endorsed that increased levels of a sense of hope in adolescents was predictive of higher academic achievement, increased positive physical health and improved mental health such as well-being.

Goal setting behavior has been shown time and time again to improve an individual's performance across various domains of functioning (Locke & Latham, 1990). Conceptualizing the future plays a potent role in the formation of one's identity. Early adolescence is a particularly critical time for the cultivation of identity in regards to forming values and developing a sense of desire and interest in a specific career, which leads to important decisions about what path the future must take (Erikson, 1968). This lends to the suggested idea that a future-oriented thinking holds powerful implications during adolescence. In this way, having a sense of future orientation is especially valuable in assisting in the transition from childhood to adolescence, particularly in high-risk populations.

The concept of future orientation has the potential to guide a person's developmental trajectory (Seginer, 2003). The idea that future orientation holds power for an adolescent's development originated with the thought that future orientation had the potential to direct and regulate behaviors. Seginer (2003) identified four important pieces that contribute to the formation of motivation for the future: (1) Value, (2) Expectance, (3) Cognition (e.g. hopes, fears, beliefs), and (4) Behavior (e.g. exploration of options by seeking out advice, finding and collecting information, and making commitments). Through the Youth Sports Association, CFK has the potential to provide youth in Kibera with these four key drivers of future orientation. Secondary effects that trickle down from responsibilities that come with being part of a team, for instance, create a sense of commitment in these young soccer players. They take this acquired skill and apply to their lives both on and off the field, creating a domino effect. This has the potential to impact commitment towards school, towards creating (and reaching) long-term goals, maintaining important relationships, thereby positively influencing quality of life.

Having a positive, detailed and realistic representation of one's future is associated with greater level of adjustment and improved development. This is an important predictor of positive outcomes in high-risk children (Quinton et al, 1993). There are various factors that may contribute to and impact a child's beliefs and attitude about the future. These factors include socioeconomic status, level of social support, strength of relationship with parent/caregiver figure(s), conflict within the family, and socialization of future orientation within the family or community (McCabe, 1997). McCabe (1997) found that risk and protective factors mentioned prior were predictive of various domains of future orientation: detail, salience, optimism, pessimism, and realism. These dimensions were particularly influenced by socioeconomic status (income level of family), social support, socialization of future orientation, mother involvement,

and, interestingly, gender. These findings provide heavy implications for the significance of future orientation and how it develops (or is inhibited).

The stress and importance that adolescents place on different domains of life plays a large role in determining the direction of future goals that an individual may possess or develop. The areas of life an individual gives strong or weak priority and value are indicative of their model of the future (Seginer, 2003). These varying domains of the future may be determined in part by the environment. Ideals about the future are learned through social interactions with others (Nurmi, 1991). People in a child's environment (e.g. parents and peers) play a key role in determining the degree and nature of future-oriented thinking that is fostered in that child. Normative standards within the community level, family unit, or peer group impact the way a child perceives the future. According to Brown and Larson (2009), peer influence is a significant factor in the choices that youth make. Interests, values, and goals that are cultivated may be a product of the norms that are present amongst various social levels that a child is part of. For example, there is a learned importance placed on factors such as education, work, and play. In addition, Level of cognitive and social-emotional development of a child also influences the nature of future orientation an individual possesses. This holds serious implications for children in high-risk populations, as development across all domains is more likely to be inhibited or stunted in this type of population (Nurmi, 1991). Therefore, children in impoverished communities such as Kibera may be predisposed to obstacles concerning the development of a strong sense of future orientation.

Adolescents who lack an orientation towards the future are more susceptible to engagement in risky and maladaptive behaviors. There is extensive literature that evidences this relationship between future orientation and troubled behaviors, supporting the notion that

problem behaviors are often associated with how youth perceive their future (Nurmi, 1991). Chan and Vazsonyi (2012) examined the nature of future orientation in high school students in the context of school environment. Findings revealed that adolescent future orientation was negatively associated with problem behaviors, indicating that a bigger, more positive picture of the future is coupled with less problematic behaviors. The Problem Behavior Theory created by Jessor et al (2003) illustrates the point that young people with a pessimistic outlook of the future and low expectations are much more vulnerable to adopting delinquent behaviors and actions. Robbins and Bryan (2004) conceptualized future orientation as a belief that positive outcomes in various domains of life (e.g. work, family, social life, control over the future) are possible.

On the contrary, individuals who have negative thoughts about what the future holds are more likely to participate in risky behaviors that compromise both health, safety, and overall well-being. Those who report a greater sense of future orientation are less likely to participate in substance abuse during adolescence. Future orientation is not solely associated with drugs and alcohol use, however; theft, acting out in school, risky sexual endeavors, and overall delinquent behaviors are reduced in individuals who demonstrate higher levels of futuristic thinking (Robbins & Bryan, 2004; Bolland, 2003). Bolland (2003) explored hopelessness as a serious contributor to a lack of future oriented thinking and subsequently unfortunate behaviors. Hopelessness was explained by Bolland in terms of a system of unfavorable expectations about one's self and future plans and aspirations. Individuals who are caught up in a bleak view of the future often deal with their fears and discouraging expectations by abandoning any long-term goals or ideas for what lies ahead. Rather, these individuals choose to focus on what can suffice for the short-term, generally attracting them to socially risky behaviors. Individuals living in low-income communities are especially susceptible to developing a sense of hopelessness and

experiencing the damaging consequences. In fact, Bolland (2003) found that in a population of low-income adolescents, hopelessness was strongly associated with essentially every facet of risk behavior (e.g. violence, substance use, sexual behaviors).

Nurmi (1991) explains future orientation as a 3-step process of 1) motivation, 2) planning, and 3) evaluation. While motivation involves goal-setting behaviors incorporating general values and anticipated developmental acquisition, planning consists of actively generating ways to realize, or accomplish, these developed goals. The evaluation step involves analyzing the potential for and opportunities available to carry out such plans and follow through with goal attainment. When conceptualizing future orientation in this step-by step way, it is important to an individual's accessibility and resources to reach each step. In resource-deprived areas such as the Sub-Saharan region of Africa, finding motivation for future oriented-thinking (e.g. hopes, goals) is an ongoing obstacle. However, if motivation is reached, individuals in the harshest conditions may experience the positive impaction of future thinking. For instance, positive psychology studies have shown that when individuals attach meaning to life and have a purpose to live, they can easily evade stressful and negative life conditions and achieve happiness (Adams and Bezner, 2000). Allowing oneself to attach meaning to life experiences generates a sense of hope for the future. Higher levels of (reported) hope predict greater academic achievement, more positive physical health behaviors, and better mental health outcomes, such as higher sense of well-being (Ling, et. al., 2015).

Community Program Involvement. Community program involvement has positive effects for youth across various domains of life. For example, participation in extracurricular activities is related to a reduction in school dropout rates (Mahoney & Cairns, 1997). Involvement in out-of-school programs and activities affords opportunities for adolescents to

cultivate interpersonal capacity, motivate challenging goal setting behavior, and trigger educational success (Mahoney, Cairns, & Farmer, 2003). Adolescence is a time when many skills are still malleable. Interpersonal skills are still flexible and are very much influenced by environment, placing great importance on and individuals relationship network and accessibility to contexts that promote social-emotional development. Youth development programs that have high efficacy incorporate three important components: personal life skills and development, positive adult, peer, and community relationships, and a psychological climate of learning, mastery, and autonomy support. Organized activities have the potential to foster and reinforce significant developmental abilities in childhood and adolescence (Eccles & Gootman, 2002; Eccles & Templeton, 2002). Mahoney, Cairns, and Farmer (2003) examined the role of ongoing youth involvement in extracurricular activities as a driver of long-term educational attainment through an 8-year longitudinal study. Not surprisingly, they identified a positive connection between consistent activity participation and success in early adulthood.

Community programs aimed to foster youth development often involve sports as a way to promote both physical and mental health. The most common benefit of physical activity is improved physiological health (Weiss & Bjornstal, 2009). However, there is a myriad of developmental gains as well. Sports-based programs for children and adolescents come with a two-fold motive: 1) create athletic ability necessary to the designated sport and enhance overall athletic skills and 2) promote and encourage valuable social/emotional and life skills (Anderson-Butcher et al, 2013). Sports may serve as a vehicle for learning valuable life skills (e.g. responsibility, persistence, courage, risk-taking, and self-control) (Kleiber & Kirshit, 1991). A considerable amount of encouraging programs have been conceived addressing sports as a means

to teach life lessons, for example, Going for the Goal (GOAL) and Sports United to Promote Education and Recreation (SUPER).

The idea that playing sports promotes healthy development and adjustment in childhood and adolescence has a long history of support. While there is research demonstrating doubt that a sports environment is an effective means of instilling pro-social values and beliefs in youth, extensive literature suggests that participation in sports is perceived as an important mode for enhancing positive development (Brunelle, Danish, & Forneris, 2007). According to Sanders et al (2000), involvement in sports is associated with psychological well-being in adolescents. While physical activity is directly related to increases in the neurotransmitter serotonin in the body, which subsequently improves one's mood, there are additional effects of sports programming that assist in the improvement in an individuals' well-being. For example, belonging to a sports team fosters a sense of belonging. A sense of belonging is significant for adolescents' development (National Research Council, 2002). Catalano et al., (1999) identified settings that provide youth with an opportunity to feel valued and recognized as leading to a decrease in risky problem behavior and an increase in personal responsibility, self-esteem, and performance in school.

Further, youth who partake in sports programming are more likely to have stronger relationships with family and peers, do better in school, and, consequently, express greater social and emotional functioning. Sports are associated with lower levels of psychological issues such as depression in high-school students. In a study of Icelandic high-school students, Sanders, et al (2000) found that moderate sports involvement (e.g. 3-6 hours per week) was related to a decrease in levels of depression compared to individuals who participated in little to no sports activities (e.g. 2 hours or less per week).

Brunelle, Danish, & Forneris (2007) implemented and evaluated a sports-based life-skills and community service program among an adolescent population. Consistent with research, results revealed that the program had a powerful influence on adolescent's level of empathy and social responsibility. There was a significant increase post-implementation, indicating a noted difference before and after involvement in this sports program. In this scenario as well as other parallel programs, the nature of the setting stimulates the learning. Sports programs are a feasible forum for pro-social development because often times the environment generates an opportunity for learning.

While sports-based youth programs have significant implications for social and emotional development, they are also just as valuable in the traditional sense of building athletic competence. Sports programs are important for instilling life-long physical activity involvement (Anderson-Butcher et al, 2013), which holds weight for various levels of functioning (e.g. physical and cognitive). For example, research repeatedly shows that physical activity and exercise is associated with improved cognitive functioning including alertness, concentration, memory, and reasoning skills. Physical activity is also a fundamental predictor of superior physical health.

Fostering strong adult relationships is an additional benefit to participation in in community programs. Developing supportive relationships with adults is central to the outcomes afforded by youth program that facilitates positive development (Weiss & Bjornstal, 2009). Coaches serve as special role models for youth participating in physical activities. Conroy and Coatsworth (2006) identified coaches as instrumental to the progression of developmental outcomes in youth sport participation. The coach contributes to the perceived experience of the individual and influences the overall environment that is created amongst the group or team.

Coaches of youth sports teams who consistently afford persistent behavior-contingent praise and informational feedback are positively associated with reports of higher self-esteem, perceived competence, enjoyment, and motivation from participants. In addition, coaches who demonstrate behaviors that allow for participant autonomy such as providing opportunities for group decision-making, encouraging participants to make their own choices, and actively listen to participants input are more likely to generate positive psychological and social behaviors amongst participants (Weiss & Bjornstal, 2009). Coaches' reinforcement and modeling of empathetic, pro-social behaviors has proven to an effective strategy for positive youth development. This approach is suggestive of an increase in improved moral judgment, behavioral intention, and reasoning skills (Gibbons & Ebbeck, 1997).

Kram (1985) explains mentoring relationships as interpersonal exchanges between an experienced mentor and a less experienced individual, where the mentor provides guidance, which leads to advancement and personal development for the mentee. Mentoring of youth is related to the development of higher long-term goals, both personal and professional (Allen et al, 2004), reduced feelings of overall stress (Wanberg et al, 2003), and a greater sense of desire to remain in a program or organization (Payne & Huffman, 2005).

Role modeling is a valuable subset of supportive adult relationships. Scandura & Ragins (1993) identified role modeling in the mentoring context as the degree to which a mentee respects and admires their mentor and views the mentor as an ideal model of positive behavior. Mentors act as role models in the context that is of relevance to the involved youth, such as through sports or other out-of-school activities. In this way, youth are able to develop bonds within an area that is salient in their life, over shared interests and abilities (Bowers et al, 2012). Mentoring can support other aspects of resiliency such as a sense of belonging. There are

important implications for supporting youth within a mentoring context. Mentors who wish to be effective in promoting positive developing amongst youth must recognize and address the value of connectedness with peers in community groups. It is crucial for such adults to promote development of social and emotional competencies such as effective interpersonal skills to successfully foster youth development. Understanding the benefits of acquiring such skills is central to the role of mentoring. For example, community leaders such as coaches or mentors of youth organizations have the potential to encourage group belonging within a group rather than dismiss or ignore it (Newman, Lohman, & Newman, 2007).

Crafting meaningful relationships with non-parental adults is a valuable asset for youth in terms of their development. Parent-child relationships hold significant weight in a child's development, however, having the support from additional adult figures such as teachers, mentors, coaches, and other community members can be especially advantageous for promoting positive development of youth (Bowers et al, 2012; Kogan & Brody, 2010). For example, DuBois & Silverthorn (2005) found that youth who experienced mentorship from non-parental adult figures demonstrated a higher likelihood of graduating from high school, and reported greater levels of self-esteem and physical activity.

Relationships with committed adults that are present in an adolescents' world are the single more important predictor of higher levels of positive youth development and lower levels of delinquent, risky behavior (Li & Julian, 2012). These relationships are associated with an array of positive developmental outcomes across domains such as psychological, social-emotional, and behavioral aspects of functioning throughout adolescence. According to Bowers et al (2004), caring, important non-parental adult relationships were repeatedly linked to youth's feelings of connectedness. Additionally, these non-parental figures have the potential to provide

a gateway for enhanced quality of relationships with peers, family, and community members. Particular characteristics of such non-familial adult relationships have been identified. Kogan et al (2011) explains that these specific characteristics are warmth, acceptance, and closeness between the youth and adult. This influence may be particularly pertinent during the adolescent years, as youth during this stage are constantly seeking to find their identity and build trusting relationships outside of the home (Cote, 2009). Thus, the implications for mentoring relationships far exceed that of basic coaching, expanding to all aspects of an adolescents' life.

Literature continuously supports the positive impact of community programming on an adolescent's development across all domains. While a significant body of literature and implementation of programs is existent within the United States, community programs are becoming more prevalent and involved in developing countries around the globe as research unfolds such powerful effects. Communities that are harder to reach, such as informal and deeply impoverished societies such as slums and "shanty towns" in Sub-Saharan Africa, have begun to receive an influx of attention due to the tremendous risks for children and adolescents. One such organization is Carolina for Kibera. Carolina for Kibera (CFK), a 501(c) non-governmental organization targeting the population in Kibera, Kenya, was developed with the goal of catalyzing positive change and alleviating poverty in the Kibera slum (Carolina for Kibera, 2013). A central goal of CFK is to decrease both ethnic and gender-based violence amongst youth in the slum while encouraging integration of individuals into the community. Further, a specific goal focuses on the empowerment of young women (CFK, 2013). Programming such as CFK has started to shift the mindset of how to best support these individuals, with a new focus on empowerment and psychological health. For instance, prior to the establishment of CFK, community organizations in Kibera only allowed boys to participate in sports, education, and

receive information. Although previous programs existed, girls were left to continue domestic work and remained uninvolved and without a choice. When CFK arrived in Kibera, the value and attitude placed on females shifted for some of the community. Through CFK, girls in Kibera are given the chance to see past the limited, long-established attitudes toward gender role that are typical in their society.

Family Support. While mentoring relationships are extremely valuable, parental relationships are also extremely influential in shaping a youth's development (Bowers et al, 2004). The influence that parents have over child development has a long history of research focus (Harris & Marmer, 1996). More specifically, research looking at the amount of time that parental figures devote to their children has evidenced that parental involvement is significantly and positively associate with children's personal development as well as educational success (Stacer & Perrucci, 2012). Warm, nurturing parent-child relationships may serve as critical protective factor for children at risk (Wyman et al, 1991). Thus, it can be suggested that high parental involvement holds significant implications for social and emotional development and psychological well-being of children and adolescents. The existence (or lack thereof) of nurturing, supportive parental relationships affects an individual's ability to thrive. Research consistently shows that parental support is related to a higher motivation in school, better mental health status, and fewer accounts of misconduct (e.g. substance abuse and delinquent behavior) (Eccles & Harold, 1996).

Among many of the benefits associate with parental involvement, academic outcomes may be strongly impacted (Chowa, Masa, & Tucker, 2013). There is an abundance of research on parental involvement and academic success in the developing world, such as the United States; however, there is a lack of sufficient literature on this topic on developing countries.

While parents in developed countries may impact their child's school success by contributing to schoolwork through engagement and assistance, parents in the developing nations do not have the types of resources of knowledge to generate the same type of support. This begs to question how parents of children in developing and impoverished countries benefit from parental support in an academic context. Chowa, Masa, & Tucker (2013) examined the effects of parental involvement on academic outcomes in a sample of Ghanian youth, and found that parental involvement is a predictive factor of children's educational outcomes in Ghana, confirming previous research on parental involvement and education. While parental influence is important for children in low-income areas and developing countries, the nature of involvement may look very different in communities where resources (e.g. time, money, education) are low or non-existent. For example, Stacer & perrucci (2012) found that factors such as family income level and parent education influence the nature of involvement that parents provide. In addition, parental employment and family structure contribute to time spent with youth (Fantuzzo, Tighe, & Childs, 2000).

Due to the sparse access of resources in such areas, the existence of involved parental figures may be especially important for a youth's development. While physical resources and support are lacking for children and adolescents living in poverty, having involved, caring parental figures may mediate some of the negative outcomes that may affect various areas of development. Roeser & Eccles (2000) demonstrate that parental involvement may serve as a critical protective factor for adolescent mental health, indicative of its important role in shaping development. Parents who spending meaningful time with youth may lead to a reduction in emotional stress, protecting children and adolescents from psychological issues such as anxiety and depression (Wang & Sheikh-Khalil, 2014).

Self-Esteem

Self -esteem is a pivotal piece of development for adolescents, particularly significant for adolescent girls (Markowitz, 2011). Research shows that relationships formed in an out of school context may be central to the development of a sense of belonging and self-esteem in adolescence. Coaches, mentors, and additional staff members involved with youth programs serve a critical role in participants feeling of self-esteem. Markowitz (2011) identified key components of mentorship of teenage girls that foster feelings of connectedness with peers and self-esteem development, including relationship scaffolding, continuous encouragement and support, and validation to bolster feelings of competency. As the perception of social support increases in adolescence, so does self esteem (McNicholas, 2002), suggesting that self-esteem is highly influenced by subjective social experiences.

Through various modes of measurement including interviews, self-esteem worksheets, and surveys, Markowitz (2011) identified 6 prominent factors that contribute to both a feeling of connectedness of and level of self-esteem. Subsequently, a dyadic pyramid was generated to outline the different factors. These factors are broken down into three tiers that span degree of relationship amongst adolescent girls. On the bottom tier lies shared environments, which consists of 3 factors: physical proximity, commonalities, and talking and listening. Directly above this tie is the development of shared experiences, including collaboration and humor amongst peers. Lastly, on the top of the pyramid, rests the closest, deepest sort of relationship of shared emotions. The sole factor incorporated on the third tier is trust. Few relationships amongst adolescent girls made it to the third level; however, girls did report a rise in competence associated with the following: physical fitness and sports skills, career goals and idea of future self, and sense of overall self-worth. These are significant implications for the adolescent girl in

terms of capacity for positive change and acquiring of vital skills. When provided with a fertile context for social and emotional development, adolescents, especially girls, have the potential to thrive.

Overall, Self-esteem has been evidenced to mediate the effects of personal and environmental variables within the domain of psychological functioning in adolescence (Fadda, Scala, & Meleddu, 2015). When self-esteem is increased, research has repeatedly demonstrated that detrimental risk factors are more likely to have a decreased impact on life satisfaction. Literature stresses the benefits of social support along with shared and enjoyed experiences with friends on increasing self-esteem (Fadda, Scala, & Meleddu, 2015).

Sense of Belonging and Social Support. Self-esteem has been shown to increase when individuals' feel supported by others and spend time engaging in positive experiences with others, which further builds resiliency. While social connectedness and belonging is often measured as a social-emotional construct, it is also part of our biological make-up. Humans crave social experiences. According to Maslow (1954), feeling as though you belong is a basic human need. Developing and maintaining a close relationship with others is a universal, permeating condition of human existence (Hagerty et al, 1996). People are mentally healthier and happier when they feel as though they belong within a group (Newman, Lohman, & Newman, 2007). Closeness to peers is associated with higher levels of self-esteem and overall psychosocial adjustment (Cauce, 1986). Cohrn & Syme (1985) found that the presence of social networks and social support play a strong in both physical and mental health outcomes. The degree to which perceived social support strengthens individual health outcomes depends largely on the quality of a person's relatedness to others and nature of relationships formed. Bio-psycho-social processes are affected, thereby influencing direction of acquired benefit. Newman, Lohman, & Newman

(2007) found that a strong sense of group belonging was associated with lower internalizing and externalizing problems. Adolescents who had a positive sense of group belonging demonstrated significantly reduced behavioral problems compared to peers who did not have positive sense of group belonging, despite feeling as though group membership is important.

Conversely, MacDonald & Leary (2005) connect feelings of a lack of social belonging, such as social isolation and exclusion, with an increase in negative affective behaviors such as anxiety, depression, and shame. Social exclusion, explained by MacDonald & Leary (2005), is [the perception of] feeling ostracized or left out of certain coveted relationships or groups or feeling devalued by a valued other. Social isolation that is unwanted has proven to be linked to internalizing issues such as anxiety and depression in adolescents. A lack of belonging within a peer group has significant implications for social development and adjustment in youth. Further, the lack of social belonging prevents individuals from engaging in positive, frequent social interactions with peers, making it challenging to learn and effectively exercise practical social skills, thereby creating a cycle of poor social habits (Brown, 2004).

Hagerty, et al (1992) explains a sense of belonging as both cognitive and affective experience within an individual that is associated with psychological and social functioning. Further, they identified 2 critical components to a sense of belonging: 1) feeling and needed by others, and 2) feeling as though you fit in with others who share similar characteristics to you in some way. Washburn (2009) demonstrated that a sense of belonging for children, such as in school, heavily influences social, emotional, and cognitive functioning in adolescents. They found that students who experienced a sense of connectedness with peers in school revealed lower levels of depression and greater feelings of self-esteem. Overall, a sense of belonging is a

powerful process during adolescence that serves as an important function of psychological adjustment.

Social support also provides strong implications for youth social-emotional development and psychological well-being. A strong sense of social support serves as an important protective process for individuals, particularly youth, exposed to the numerous detrimental risks that accompany urban poverty. For example, perceived social support has been shown to have significant influences on academic attainment during important stages of academic achievement and knowledge acquisition (Elias & Hayes, 2008). Rosenfeld, Richman, & Bowen (2000) identify perceived social support, or how an individual views the degree of social support they experience, is a crucial piece for healthy development across childhood. With a heightened sense of perceived social support, youth develop the confidence and tenacity they need to meet life's many challenges. For instance, The National Research Council (2002) identified supportive relationships, opportunities to belong, positive social norms, and efficacy for support and mattering as critical features for promoting positive youth development.

According to Hagerty et al (1996), social support provides individuals with a sense of acceptance. Further, perceived social support is related to greater interpersonal skills, a sense of self-efficacy when navigating stressful situations, reduced feelings of anxiety, and positive expectations of interactions with others.

Newman & Newman (2001) reinforce the view that group belonging is beneficial for giving youth a sense of self-worth, purpose, meaning, and social control, contributing to overall mental health. Developing a sense of connectedness and relatedness and forming significant relationships with others is no easy feat. Thus, the actual work that youth must exert in order to

foster such relationships and integrate into a group of peers is confirmation of positive coping skills such as appropriate communication, problem solving, and self-regulation of emotions (Newman, Lohman, & Newman, 2007).

Social support from other peers is especially critical for youth. Hirsch & Bubois (1992) explain that a sense of peer social support create a feeling of value. In addition, a strong group of friends has the potential to maintain one's mental health in adolescence. It helps to protect youth from feeling isolated, creating a buffer against internalizing issues such as anxiety and depression. Perceived appreciation from friends' bolsters personal satisfaction, provides a sense of optimism towards the future and is associated with greater feelings of enjoyment and fun (Fadda, Scala, & Meleddu, 2015). Further, higher levels of social support have been evidenced to be positively associated with higher levels of hope, suggesting an effect of social support on future thinking (Ling, et. al., 2015).

Pro-Social Behavior and Social Competency.

While social support has been proven to associate positively with various aspects of mental health (i.e. self-esteem), subjective and perceived social support is in part dependent upon ones' competency and behavior in social situations. Opportunities to exercise emotion regulation, build interpersonal skills, and form peer relationships increase positive development of social skills (Larson, 2000). Social competency and acquisition of life skills prepares and allows youth to thrive in the environment in which they are part of (Danish & Nellon, 1997). Interpersonal competence has been conceptualized as maintaining good relationships with peers and others as well as avoiding aggressive conflicts (Cairns & Cairns, 1994; Luthar & Barack, 2000). This type of pro-social behavior positively impacts educational engagement and

attainment. While a sense of interpersonal competence is critical to success in both education and career settings, a lack of interpersonal skills increases the likelihood of separation from education and leads to less ambitious life choices (Mahoney, Cairns, & Farmer, 2003).

Slutzky & Simpkins (2009) identify the importance of participation in youth sports for children's self-esteem, particularly during late childhood. According to Erikson (1963), developing competencies in youth is vital for healthy development during late childhood. Therefore, the time devoted to activities and programs that strengthen children's competencies are suggested to be especially crucial in promoting development. Simpkins et al (2006) found that children involved in sports activities reported higher levels of self-esteem than their peers who did not participate in sports. Mastering the abilities needed to relate to others, particularly within a group setting, requires the presence of cognitive, social, and emotional skills. According to the World Health Organization (1999), teaching adolescents critical life skills such as interpersonal skills and pro-social behaviors is fundamental to development and preparation for potential social situations in the future.

Further, the development of important competencies during this critical period provides youth with the ability to evaluate their competencies (Harter, 1999). Children's increased focus on their own competencies and skill level as they move through childhood creates self-awareness and reinforces such competencies (Mahoney, Cains, & Farmer, 2003). While time spent in sports programs presents opportunities for children to build relevant sports competencies, it also affords children the chance to build self-concept of their own abilities, both on and off the "field" (Fox, 2000).

Well-Being

The concept of well-being has been identified as positive psychological functioning as a result of life experiences (Jose, Ryan & Prior, 2012). The way in which individuals experience life during the delicate stage of adolescence is derived from both enjoyable and detrimental experiences. Similarly, perceptions of an individuals risk and protective factors contribute to an overall sense of well-being. Thus, evaluating the quality of one's life is highly dependent upon the degree to which protective factors mediate the effects of risk factors. A number of qualities influence the experience of such factors. The degree to which one feels socially competent, socially connected and supported, the level of engagement in social and physical activities and how one views the future impact one's life experiences. In addition, the risk factors which affect all areas of functioning (physical, cognitive, social-emotional) such as health, safety and accessibility to resources figure into one's sense of well-being.

Thorburn and Malcolm (2015) identified two constructs of well-being: subjective and objective well-being. Objective well-being compares the quality of an individual's life compared to societal norms. Subjective well-being focuses on individual experiences and personal reflection of those experiences. Subjective well-being is a valuable measure when assessing adolescents in order to obtain a sense of perspective in regards to development. Subjective well-being allows the opportunity to better understand the individual's life satisfaction and how they view their life. This encompasses multiple aspects of an individual's life, including both positive and negative measures experiences that occur independently of one another (e.g. experience of risk and protective factors).

Well-being is highly influenced by various positive experiences and psychological constructs that can be categorized as protective factors (e.g. self-esteem, social support). Meaningful

relationships have been identified between satisfactory feelings of competence, sense of independence, social relatedness and perceived well-being. (Ryan and Deci 2000), suggesting the importance of various resiliency factors on the subjective formation of well-being. One of the strongest predictors of subjective well-being is high-self esteem (Diener, E., 1984). Certain positive social traits, such as sociability and extraversion, are thought to positively correlate with well-being as well, suggesting that social support, social competency and positive view of one's self significantly increase one's life satisfaction and subsequent well-being. Jose, Ryan & Pryor (2012) identified social connectedness as an additional predictor of well-being in adolescence. Cassas, et al (2014) investigated the factors that contributed to life satisfaction and subjective well-being among adolescents in 3 different countries. Findings indicated that satisfaction with friends, one's enjoyment independently and with the groups of people to which one belongs were endorsed as the most influential factors contributing to well-being. Overall life satisfaction, confidence, and future aspirations were found to enhance well-being along with high levels of social connection. In addition to peer relationships, strong bonds with trusted adult figures contribute to one's sense of well-being. For instance, fostering positive relationships between adolescents and peers and adult figures alike creates improved sense of well-being, with effects that are potentially lasting in nature.

While both risk and protective factors influence perceptions of well-being in adolescents around the globe, a subjective sense of well-being holds unique implications when measured in individuals who live in economically deprived areas. While socio-economic status and level of income are not reported to be critical to one's happiness once basic needs are met, there is an effect at extreme levels of poverty. The idea of income does not become influential until

financial barriers are acute in that access to food, clean water and healthcare are significantly compromised.

Context of Kibera

Risk and protective factors that accumulate into one's life experiences and generate a sense of well-being are unique to the female adolescent population in the Sub-Saharan region of Africa due to the oppressive economic barriers and gender expectations. One particular society in which these burdens are acutely felt is the informal settle of Kibera. Kibera is one of the most densely populated urban settlements in the world, located just outside of Nairobi, Kenya, approximately seven kilometers from the Nairobi city center. Kibera is known as the biggest slum in Nairobi as well as one of the largest slums in all of Africa. While exact numbers are unknown, an estimated 500,000 to 1 million people live amongst a 632-acre area. In this crowded area residents struggle to meet their basic needs and over half of Kibera's residents are under the age of 15. Housing for residents in Kibera typically offers minimal, temporary shelter that does not include indoor facilities (UN-HABITAT, 2003). Common residential structures (shacks) are 12 feet by 12 feet in size with corrugated tin roofs and dirt floors. Frequently, up to 8 individuals live under the same roof, and often more depending on the family unit. Furniture is sparse and many residents of Kibera sleep on the dirt floor. The average monthly cost of housing in Kibera is 700 KES (Kenyan shillings), which is equivalent to less than 7 USD. An approximated 50% of adults in Kibera are unemployed (Population Council, 2006), while those who do have the good fortune of employment have minimal job security. Of the 50% of Kibera residents who are employed, approximately half commute to the industrial section of Nairobi for work. Estimates from 30-70% of children in Kibera do not attend school (Population Council,

2006), despite the Kenyan government's provision of free primary schooling to all children from grades 1-8.

Access to clean water, electricity, and toilet facilities are sparse in Kibera. Electricity is exists in approximately 20% of Kibera, which is available for a price that most residents cannot afford. Water in Kibera is a recent development, with two large water pipes in which water can be collected for a small fee. Prior to installation of water pipes, residents were forced to gather water from the Nairobi dam, which produces unsanitary water known to cause disease such as typhoid and cholera. In addition, toilets (referred to as latrines) are also a new development in Kibera. The most common type of toilet is a hole in the ground that is shared by a large number of families. When necessary, residents relieve themselves on the muddied paths and "streets" within Kibera, which is affords the spread of disease throughout the slum.

Kibera is one of the most studied slums in Africa. Situated close by is the home of the United Nations agency for human settlements (UN-HABITAT, 2003). Notably, the Gates Foundation and the Bill Clinton Foundation have provided funding to Kibera. Various NGO's have also made their way into Kibera with the hopes of improving life in the slum. For instance, all clinics and hospitals in Kibera are provided though charitable organizations. Despite the high research density and call for action in Kibera, there still remains a disconnect between what is known and what can be done to improve psychological health and well-being for children in this settlement. Numerous organizations and foundations have offered funding and monetary support to better the lives of people in Kibera. Providing education to residents to equip them with the skills to help themselves is a critical step to development in Kibera.

Girls in Kibera experience greater exposure to risk and violence than do boys (Knotek, Weinstein, & Bankoski, 2014). Erulkar & Matheka (2007) report that many environmental

aspects of Kibera are particularly harmful for girls. A study by the Population Council provides perspective on how girls in Kibera feel on a consistent basis: fear of being raped (60%), being scared of someone in the neighborhood (47%), and being coerced into one's initial sexual encounter (43%). Not surprisingly, only 25% of girls in Kibera reported feeling as though they have a "safe space" within the community to meet with other girls. On the contrary, 58% of boys in Kibera identified having a "safe space". These statistics draw attention to the lack of empowerment and sense of helplessness that many of these girls possess. In Kibera, girls are expected to fulfill stereotypical domestic duties and remain in the home. Gender norms are rigid and traditional, falling behind todays' modern woman.

Carolina for Kibera (CFK)

Research has demonstrated that growing up in poverty, particularly in the Sub-Saharan region of Africa, poses many obstacles that make day-to-day living a challenge. All female adolescents in Kibera are exposed to high levels of risk and similarly may have experienced a number of protective factors. However, the participants chosen for this study were exposed to a unique protective factor: involvement in a University of North Carolina alumni-founded youth developmental program, Carolina for Kibera.

Carolina for Kibera (CFK), a 501(c) (3) non-governmental organization targeting the population in Kibera, Kenya, was founded by Rye Barcott, Salim Mohamed and Tabitha Atieno Festo (Barcott, 2011). CFK was developed with the goal of catalyzing positive change and alleviating poverty in the Kibera slum (Carolina for Kibera, 2013). CFK has developed numerous community programs that address some of the needs of the settlement, addressing three interconnected themes of health, social development, and economic development. Currently in place are six programs: Tabitha Medical Clinic, Sports Association, Daughters United,

Reproductive Health, Trash is Cash, and Education. In addition, there are new initiatives (e.g. Kibera Worldwide and Rubberbanditz) that contribute to the promotion of the CFK ideals. The CFK organization has served thousands of children and adolescents since it began in 2001 through these various programs.

A central goal of CFK is to decrease both ethnic and gender-based violence amongst youth in the slum while encouraging integration of individuals into the community. Further, a specific goal focuses on the empowerment of young women (CFK, 2013). Prior to the establishment of CFK, community organizations in Kibera only allowed boys to participate in sports, education, and receive information. Although previous programs existed, girls were left to continue domestic work and remained uninvolved and without a choice. When CFK arrived in Kibera, the value and attitude placed on females shifted for some of the community. Through CFK, girls in Kibera are given the chance to see past the limited, long-established attitudes toward gender role that are typical in their society.

The Youth Sports Association and Daughters United are two programs that share ideals of supporting positive development of adolescent girls in Kibera. Through involvement in these programs, youth have the potential to acquire and develop protective factors relevant to the numerous risks that persist in Kibera. CFK may offer youth a sense of belonging in which they feel connected to their teammates and peers, as well as mentors and coaches. When youth feel a sense of belonging, they are more likely to feel as though they have a network of social support. Positive interactions with teammates and involved individuals of CFK also influences the development of social competency where youth feel as though they possess the skills necessary to relate to others and form strong relationships. In addition to the social advantages, CFK also has the potential to foster a sense of future orientation in youth. Thinking about short-term goals

learned through soccer or education may lead to the development of long-term goals and hopes for the future, improving self-esteem and self-worth.

Youth Sports Association. The Youth Sports Association targets relevant social issues of ethnic violence, civic engagement, and public health to foster critical qualities in youth and adolescents in Kibera. Thousands of youth, both male and female, join soccer teams and register with CFK run Kibera Champion's League to play in a year-long tournament (CFK, 2013). While playing soccer is a central component to participation in the Sports Association, there are additional goals that are built into the configuration of the program.

One goal of the Youth Sports Association is to promote peace across ethnicities and genders in the community. Soccer teams are formed of all 13 ethnic groups that are present Kibera. In this way, youth are able to build a coherent group of belonging within their team despite the differences or prior conceived perceptions that may exist between teammates. In order to strengthen the bonds amongst teams, players participate in constructive team-building exercises and activities in which they must work together. For instance, teams pick up trash in different ethnic areas throughout Kibera. Engagement in such activities allows youth to channel their energy in a productive manner by forming strong connections and give back to the community.

Further, the YSA aims to teach healthy life choices and foster positive social development amongst youth in Kibera (Knotek Weinstein, & Bankoski, 2014). Participating in a CFK soccer team offers girls both physical and psychological safety. Physical safety is afforded by providing youth with structured, monitored, consistent and predictable venues after school and on weekends (e.g. soccer practice, soccer games, and field trips). CFK's soccer programming consists of weekly soccer training, participation in multiple tournaments,

embedded team building opportunities and experiences, as well as occasional coach and staff visits to participants' homes. Through this program, CFK serves as a particular community and support system for involved children and adolescents (Knotek, Weinstein, & Bankoski, 2014).

Daughters United. The Daughter's United Center (DUC) was established as a safe space for girls 11-18 years old in a community [Kibera] that in some ways devalues the female gender. DUC is a center for reproductive health and women's rights, giving the women and girls of Kibera a place to express themselves through various outlets (e.g. dance, drama, writing, group discussions, & photography) (CFK, 2013). More specifically, Daughters United (DU) (Swahili: Binti Pamoji) was developed as a way for girls of Kibera to explore prevalent issues that come up in their daily lives, particularly those that are a part of a hostile environment. The central goal of DU is to provide an all-girls program that serves as a safe space for adolescent girls to explore topics and issues that are prevalent in their everyday lives. Common issues include: violence against women, HIV/AIDS, rape, prostitution, female genital mutilation, sexual abuse, poverty, lack of reproductive health care, limited access to health information, unequal access to education, and demanding domestic responsibilities.

In addition to a physical space for safe expression, Daughters United also incorporates additional features that include: monthly speakers and field trips, community service projects, family events, and peer education programs. (CFK, 2013). Further, as girl's progress through the DU program, they are presented with the opportunity to take on leadership roles and responsibilities or even create their own peer-led group of females within the community of Kibera (CFK, 2013; Knotek, Weinstein, & Bankoski, 2014).

The current study used a sample of adolescent girls in Kibera that, as an environmental consequence, endured the hardships that accompany life Kibera. Participants'' also presented

with unique protective factors (participation in one or both of identified CFK programming). Further individual characteristics and perceptions were explored.

Rationale for Current Study

Previous research and both governmental and non-governmental agencies have previously focused primarily on how to best meet the physical needs (e.g. food, water, shelter) of children struggling in profound regions of poverty such as Kibera. There has been a recent shift toward concerns about the psychological needs of children and adolescents in areas of such acute poverty. However, this is a relatively novel focal point of poverty research and there is inadequate literature on the influence of poverty on social and emotional needs. Less is known about affects on youth, particularly adolescent females, living in abject poverty. While there are numerous risk factors for this particular population, there is a lack of significant literature on protective factors that offer potential for improvement in developmental outcomes beyond physical health. In addition, there are limited tools and knowledge about how to assess the nature of psychological assistance and whether support is beneficial and advantageous to development (Mumbe, 2011).

There is an abundance of research on constructs of risk, resiliency and well-being for youth living in poverty in the developed world, particularly the United States. Previous studies have addressed the complex nature of development in the context of low-income families across the United States. Implications from these studies are not necessarily transferrable to children and adolescents in developing countries of the world, such as Kenya, due to the unique cultural and environmental differences that exist. Kibera was selected as an appropriate context to assess perceived well-being and subsequent performance across measures of psychological functioning as a result of the environmental challenges of poverty, gender and societal norms.

Further, research focused specifically on adolescent girls in urban poverty has primarily looked at public health issues such as HIV/AIDS and other associated risk factors of sexual behavior. While this is a pressing issue and critical to address, risk factors that are psychological in nature are becoming recognized as more and more vital to an individuals development and experience with the world, therefore requiring significant attention. Well-being as a construct has been explored, but less so with youth in Sub-Saharan Africa and the subset population of adolescent females. The experiences of these adolescents, both positive and negative, that contribute to perceived sense of well-being at this stage of development and connection to psychological functioning is not yet thoroughly explored in the literature. There is a general conception that life is difficult in the developing world of Africa and particularly within a large east-African slum called Kibera. There is limited information that explores the experience of girls who live in this part of the world. Their voice and perception of life has not historically been identified or heard. This project will address major limitations of past research examining female adolescents in poverty. The present study aims to contribute to the knowledge base of existing risk and protective factors in as well as psychological resiliency of adolescent girls in the context of a sub-Saharan African urban slum in Kibera, Kenya.

The present study applied a quantitative methods design to explore the influence of positive and negative life experiences on perceived well-being and psychological functioning in female adolescents in urban Kenya. In order to better understand their situation, the current research identified and documented risk factors, protective factors and how they perceive their sense of well-being.

Perceived overall well-being was explored in relation to measures of psychological functioning within the domains of self-esteem pro-social behavior, and overall emotional stress.

Mental testing was used to ensure reliability of assessment measures amongst participants. Adolescent females in Kibera provided information regarding their perceptions and experiences via the following measures: a demographic survey, the Strengths and Difficulties Questionnaire (SDQ) and the Rosenberg Self-Esteem Scale (RSES).

Research Questions and Hypotheses

The original goal of this study planned to evaluate the effectiveness of a youth development program, Carolina for Kibera (CFK), on a group of female adolescents living in one of the larges shantytowns in the world in Nairobi, Kenya. Given circumstances that were presented in Africa, the opportunity to follow-through with the intended study did not happen in full. Research questions initially created were unable to be addressed. In order to use the data that was conducted and obtained in Kibera, research questions were re-formulated and associative analytic techniques were implemented. Original research questions are provided below.

1. The first research question is aimed to explore the association between length of time in CFK programming with four measures of social-emotional functioning.
2. The second question is intended to determine whether specific demographics are associated with social-emotional outcomes of self-esteem, pro-social behavior, goal-setting behavior and overall emotional stress.
3. The third question is intended to examine the relationship between emotional stress of adolescent girls in CFK and desirable emotional outcomes of self-esteem and goal-setting behavior.

The revised goal of this study is to investigate what life is like for adolescent females living in Kibera. In particular, this research intends to provide information on a particular group

of adolescent females regarding experienced risks, enjoyment, and what most likely predicts how they feel about themselves. In order to better understand the situation of this group of girls in Kibera, risk factors, protective factors and perception of well-being and performance across measures if psychological functioning were identified and documented. In addition, once a new direction for the current data was identified, this project intended to better understand the relationship between well-being with measures of psychological functioning across 3 domains. Updated research questions based on previous literature are described below.

1. What is the nature of risk and protective factors, sense of well-being, and measures of stress, pro-social behavior, and self-esteem for this sample of young and older adolescent girls in Kibera?
2. Are there significant differences between younger and older adolescents on risk and protective factors, sense of well-being and psychological measures of self-esteem, pro-social behavior and emotional stress?
3. Are there significant relationships between identified risk factors, protective factors, sense of well-being and psychological measures of self-esteem, pro-social behavior and emotional stress?
4. To what extent do risk factors, protective factors, self-esteem, and measures of stress and pro-social behavior predict sense of well-being in this sample of adolescents?
5. To -what extent do risk factors, protective factors, well-being, and measures of stress and pro-social behavior predict self esteem in this sample of adolescents?

CHAPTER III

METHODS

Participants

Participants included in the present study were recruited through CFK coaches and mentors who were involved in YSA and DU programming. Participant recruitment and data collection was funded through a Graduate Research Fellowship that allowed for travel to Nairobi, Kenya for 7 weeks. All participants were adolescent females between the ages of 12 and 16 years who lived in Kibera. All participants lived in severely economically disadvantaged families and lived in acute urban poverty at the time of the study. All participants were involved in either one or both of two of Carolina for Kibera's central programs, the Youth Sports Association (YSA) and Daughters United (DU). Individuals excluded from data analysis included participants who did not complete surveys or did not provide responses to each question. As a result, data from 64 participants out of the 67 total initial participants were included in analyses.

Of the total participants included in this study, age breakdown was as follows: 34.4% were 12, 26.6% were 13, 18.8% were 14, 14.1% were 15 and 6.3% were 16 years old. For the purposes of one aspect of this study, Participants were grouped by age to address a developmental research question; younger and older adolescents. Younger adolescents included 12- and 13-year olds and older adolescents ranged from 14 to 16 years for developmental purposes. Of the total sample size, 58.2 % fell within the younger age group and 37.3% fell within the older age group.

Seven ethnic identities were represented by the sample. Ethnicities identified by participants included Nubian, Luo, Kisi, Luhya, Kamba, Kikuyu and Karanja. Participants resided in 11 different villages throughout Kibera. Villages represented by this population included Soweto, Olympic, Bombolulu, Raila, Lindi, Kianda, Makina, Ayani, Katwerka, Kisumu and Daranji. Participants attended both government schools (public) and community schools (private). Family size was of participants' varied and grouped as three categories: small (1-4), medium (5-8) and large (9-12). Breakdown of demographic information is provided below in tables 1-5.

Table 1
Participant Demographics: Age

Age (Years)	n	Percent
12	22	34.4
13	17	26.6
14	12	18.8
15	9	14.1
16	4	6.3

Table 2
Participant Demographics: Ethnicity

Ethnicity	n	Percent
Nubian	11	17.2
Luo	33	51.6
Kisi	6	9.4
Luhya	10	15.6
Kamba	2	3.1

Kikuyu	1	1.6
Karanja	1	1.6

Table 3
Participant Demographics: Village

Village	n	Percent
Soweto	22	34.4
Olympic	8	12.5
Bombolulu	3	4.7
Raila	9	14.1
Lindi	9	4.7
Kianda	3	4.7
Makina	6	9.4
Ayani	2	3.1
Katwerka	6	9.4
Kisumu	1	1.6
Daranji	1	1.6

Table 4
Participant Demographics: School Type

School Type	n	Percent
Government	35	54.7
Community	29	45.3

Table 5
Participant Demographics: Family Size

Family Size	n	Percent
Small	8	12.5
Medium	33	51.6
Large	23	35.9

Table 6
Participant Demographics: Years Living in Kibera

Years in Kibera	n	Percent
1-5	10	16
6-10	9	14
11-16	45	67

Procedure

Several measures were taken to safeguard the privacy of the participants involved in the present research study. The current study was approved by University of North Carolina at Chapel Hill Institutional Review Board prior to data collection. Once approved by the IRB, a second level of clearance was granted to safeguard participant's rights to have their pictures taken and used. Pictures taken on the ground in Kibera were done so with approval and were not used with identifying information to further ensure privacy of participants. Participation in the study was judged to pose minimal risk to participants. Measures were taken to ensure confidentiality of sensitive information. Participants provided assent by reading and signing forms prior to involvement in the study. Parents/caregivers of participants provided written consent by reading and signing consent forms prior to the study, as all participants were under the age of 18. The informed consent and assent forms described the purpose of the study as well as any potential risks or benefits associated with participation. The forms also explained confidentiality information, the responsibilities of participants in the study, and the rights of participants to withdraw from the study at any time without being penalized. These forms can be found in Appendix A. Assent and consent forms informed participants of their right to withdraw from the study at any point without negative consequences. No participants chose to withdraw.

Kenyan CFK members conducted mental testing to check for cultural appropriateness and validity of the scales with this population. Due to the cross-cultural nature of this study, it was critical to ensure that study participants fully understood what was being asked through the various measures. Mental testing consisted of a thorough examination of the measures by Kenyan individuals who were familiar with the culture in Kenya, and more specifically, Kibera. Specifically, CFK officials in Kibera were provided with the three identified measures (Demographic survey, RSES, SDQ) and asked to view and complete the surveys. Following completion, the individuals were prompted to share their understanding of the measures and evaluate whether changes were required in order for participants to comprehend what was being asked. As a result of this process, slight modifications were made to wording across two out of the three surveys (e.g. sentence structure and varied word choice). The demographic survey was expanded to incorporate additional open-ended questions to include aspects of "fun" in Kibera and relationships with others. Following the cultural examination for participants, CFK program leaders (i.e. mentors, coaches) volunteered to recruit participants and administer forms. Participant assent and parental consent forms were obtained for all participating individuals. Data from the surveys for the present study was obtained through in-person data collection in CFK affiliated spaces on the grounds of Kibera, Kenya. Volunteer CFK program leaders organized spaces and times to gather participants and administer surveys. Program leaders provided participants with an explanation of instructions for completing the surveys and answered any questions addressed by participants. Each survey was fairly short in duration; the completion time of all measures did not exceed 45 minutes and the average completion time lasted approximately 30 minutes. Data was collected from participants at one point in time in the form of paper-and-pencil questionnaires. Once all data was collected, initial analyses to

determine descriptive information of the participant demographics and further statistical analyses were conducted to address the research questions proposed in the current study.

Measures

Demographic Survey. The investigator designed the demographic survey for adolescent female participants for the purposes of this study. Participant names remained anonymous and were coded as numbers to ensure confidentiality. Demographic information was obtained through paper and pencil surveys. The survey included the demographic information used as identifying information for participants (such as age, ethnic identity, village affiliation, family size in home, school type). Questions involving open-ended responses were also included in the demographic survey to better understand participants' experiences of life in Kibera. Open-ended questions were used to create variables to describe reported perceptions of life in Kibera for female adolescents. The demographic survey can be found in Appendix D.

Variables:

Protective Factors

A Protective Factors variable was created from a combination of responses from the demographic survey. A total Protective Factors score consisted of participant responses to the following: role model, social connectedness and life goals. Role Models were reported within three general categories including parent/family member, community members (e.g. mentor, teacher) and unknown individual (e.g. celebrity). Social connectedness was determined by the presence of a best friend. Life goals were grouped into three levels that were organized by a hierarchy of training required: little to no training, short-term training and long-term training. Scores for each of the three

responses were calculated based on a point system. Rankings used to calculate an overall Protective Factors score can be found in appendix B.

Risk Factors

A Risk Factors variable was also obtained using responses from the demographic survey. A total Risk Factors score consisted of participant responses to the following: greatest fears in Kibera and greatest challenges in Kibera. In order to determine rankings to calculate a score for overall risk factors, a ranking system was utilized to organize a hierarchy of identified fears and challenges. Raters were recruited to rank identified risk factors (reported by participants) from least to greatest severity in terms of life impact and detriment. Raters were professionals with a graduate or professional degree in a heath-related field in the Boston area. Means were calculated to obtain a common order used for the present study. An 8-point ranking was derived, with lower scores equating to lower less, less threatening risks and higher scores representing more significant risk. Thus, a ranked score for greatest fears and a ranked score for greatest challenges were added together to produce an overall Risk Factors score. A list of rankings can be found in Appendix B.

Well-Being

Additional questions from the demographic survey were utilized to generate an overall variable of Well-Being. A total Well-Being score consisted of participant responses to the following questions: What do you like to do for fun, what is your favorite thing about Kibera, involvement in CFK programming and parent employment. Participants' perception of fun was organized into social or non-social activities. Previous research suggests that social belonging and participation in social activities and spending time

with friends is significantly linked to an improved sense of well-being. For instance, having close relationships with peers helps to acknowledge and reinforce ones' personal satisfaction and is associated with feelings of fun and enjoyment (Fadda, Scala, & Meleddu, 2015). Involvement in CFK programming indicated whether participants were involved in either one or two programs. Participants were involved in Binti Pamoji only, Youth Sports Association only, or both Binti Pamoji and the Youth Sports Association. Parent employment was categorized by job security and subsequent level of income stability to provide information regarding quality of life in participants' homes. Levels of parent employment were grouped into the following: unemployed, unsteady employment and steady employment. Rankings used to calculate an overall Well-Being score can be found in appendix B.

Strengths and Difficulties Questionnaire. The Strengths and Difficulties Questionnaire (SDQ) (Goodman 1997) is a brief behavioral screener that is available for children and adolescents from 3-16 years. The self-report version for 11-16 year olds will be used in the present study. According to Goodman, Meltzer, & Bailey (1998), the SDQ self-report measure is a valid tool, as demonstrated by differentiating a sample of 11-16 year olds in the community and in a mental health clinic. It comes in questionnaire format composed of 25 items that target positive and negative psychological attributes. The 25 items are divided into 5 scales of 5 items each. These scales include Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Relationship Problems, and Pro-social Behavior. The SDQ is a widely used assessment tool and is effective for various purposes, such as screening, clinical assessment, evaluating outcomes, and research. The SDQ is a fairly easy assessment measure, which takes approximately 5-10 minutes for the respondent to complete.

There is normative data for the SDQ in various countries, including Australia, Great Britain, Denmark, Finland, Italy, Germany, Spain, Sweden, and the United States and is translated into 60 different languages. It has been demonstrated to be an appropriate tool of functioning cross-culturally and has high utility all over the world, making it a valid tool for the present study. Goodman (2001) identifies the SDQ as a useful measure in terms of its reliability and validity.

The SDQ can be broken down to generate scores on 5 scales: pro-social behavior, emotional symptoms, conduct problems, peer relationship problems and hyperactivity/inattention. The questionnaire also creates an overall score for emotional stress. For the present study, surveys were scored through an online scoring system and results included quotients for overall emotional stress and pro-social behavior. This measure was selected due to the cross-culturally sound evidence, information yielded from the particular questions presented and the simplistic administration required due to the logistical challenges in international data collection. The SDQ also includes follow-up questions based on results, which was not used in this study based on logistics. For the purposes of the current study, the SDQ was adapted for cultural appropriateness for the population of participants. Kibera residents associated with CFK provided the necessary modifications. was changed slightly on a limited number of questions. The adapted SDQ can be found in Appendix B.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1989) was developed as a way to measure global self-worth through positive and negative feelings about the self. The RSES is an overall evaluation of one's perception of worth, examining the orientation one has towards the self. The RSES is a 10-item measure on a 4-point Likert scale, ranging from strongly agree to strongly disagree. A single score is yielded for each

questionnaire. The overall scoring scale ranges from 0-30, with 30 demonstrating the highest level of self-esteem and 0 the lowest. Scores between 15-25 are considered an ideal sense of self-esteem. The RSES is considered a valid and reliable quantitative measure of overall self-esteem.

In addition, the RSES has been translated and adapted into various languages around the globe. It has been used successfully and extensively in over 53 countries around the world, thus making it a cross-culturally acceptable assessment tool (Schmitt & Allik, 2005). Further, it is considered the most widely used measure of self-esteem in social science research (Rosenberg, 1989). Due to these factors, the RSES was selected as an appropriate tool for the present study when considering the population and research questions.

A score from the RSES was generated for each participant who completed the scale on a computer scoring system provided by the developer. The RSES was adapted for the purpose of the present study and Kibera residents associated with CFK provided the necessary modifications. Changes in wording were made to ensure thorough understanding of questions on the survey. The adapted version of the RSES can be found in Appendix B.

Analytic Procedures

Data were analyzed using SPSS in order to document participants' experiences of risk factors, protective factors, and performance on measures evaluating well-being, self-esteem, pro-social behavior and emotional stress. In addition, this study aimed to explore the relationship between perceived well-being and performance on measures of psychological functioning within three domains (self-esteem, pro-social behavior, and overall emotional stress).

An analysis of descriptive statistics for the overall sample was initially conducted. Mean scores, ranges and standard deviations were derived for indicated questions within the

demographic survey. Means and standard deviations were also calculated for identified variables including risk factors, protective factors, well-being, self-esteem, pro-social behavior and emotional stress. T-tests were conducted in order to test for developmental differences between younger and older adolescents.

A correlation matrix was derived to examine relationships amongst variables and identify possible significant relationships. Multiple regression analysis was conducted in order to determine predictors of self-esteem and to identify what percent of the variation in self-esteem score is explained by variables in the model. Multiple regression analysis was also conducted to model predictors of well-being and to determine the percentage of variation in well-being explained by variables in the model.

CHAPTER IV

RESULTS

Descriptive Statistics

The first research question aimed to examine female adolescents' perceptions of life in Kibera. The demographic survey completed by participants included open-ended questions in order to find out about their experiences related to enjoyment, challenges, fears participation in CFK, life goals, role models, social connectedness and parental employment status. Descriptive statistics were conducted to present characteristics of the participant population. The descriptive findings provide a comprehensive view of the perceptions of life experiences and perceived risk and protective factors of adolescent girls living in Kibera. A summary of responses to survey questions by participants and their characteristics are presented in Table 6.

Table 6.Descriptive Statistics: Participant Perceptions and Life Experiences

Survey category	n	Percent
Fun: Social	48	71.8
Fun: Academic	12	17.9
Fun: Other	4	6
Favorite: Social	49	73.1
Favorite: Shops	3	4.5
Favorite: Other	12	17.9
Best friend: Yes	60	89.6
Best friend: No	4	6
Role model: Parent	24	35.8
Role model: Family/Non-parent	9	13.4
Role model: Mentor/Teacher	14	20.9

Role model: Celebrity	17	25.4

As shown in Table 6, participants shared their preferred experiences for fun and enjoyment. A considerable number of participants reported activities that involved a social component. For instance, many participants endorsed theatrics (art, dance) in which they practiced and performed with peers as their primary mode of having fun.

As indicated in Table 6, almost all of the participants endorsed having a best friend. It is unclear why the remaining females that did not support having a best friend. It is possible that participants may have misunderstood the question, may have recently moved to Kibera or do not consider one friend highly preferred over another.

All participants endorsed having a role model. The results in Table 6 indicate that many adolescent girls in Kibera view their parent or a non-parent family member as their role model. This may be reflective of culture and values in Kibera; for instance, Kenyan culture as a whole is remarkably family-oriented. Individuals who are considered friends and family are put before all else. Participants' values were also demonstrated through acknowledgement of mentors and teachers as role models. CFK mentors take on powerful roles as models for young developing girls, and the influence is notable. Participants also endorsed celebrities as their role model, such as famous singers or bands from America.

Participants identified their favorite part of Kibera (Table 6) as grouped into three main themes: social aspect, shops in Kibera and additional responses categorized as "other." A large number of participants endorsed the social experience in Kibera as their favorite part of where

they live. For example, participants endorsed favorite parts of Kibera including CFK participation, the people and their family. A comprehensive list of responses is found in appendix G. Participants also endorsed that various stores and shops were a highlight of life in Kibera, and an additional group of participants endorsed responses that were unique and therefore not relative to a particular category.

Table 7. Descriptive Statistics: Participants Goals and perceptions of the future

Survey questions	n	Percent
Goals: Business Oriented	8	12
Goals: Helping- Health	17	25.4
Goals: Helping- Other	20	30
Goals: Individualized	6	8
Goals: Other	12	18
Challenges: Life Risk	8	11.9
Challenges: Pregnancy	2	3
Challenges: Deviance/Violence	16	23.9
Challenges: Resources/Needs	38	56.7
Fears: Life Risk	21	31.3
Fears: Pregnancy	2	3
Fears: Deviance/Violence	24	35.8
Fears: Resources/Needs	17	25.4

Participants identified career goals that they hoped to aspire to in the future. As shown in Table 7, participants most commonly endorsed careers in a helping profession, split between health fields and non-health oriented jobs. Health oriented helping professions included careers such as a doctor and nurse, while non-health related helping professions included jobs such as pilot and lawyer. Individualized jobs such as artists and musicians were represented by

participants as well as business oriented careers including jobs such as bank manager. Additional jobs that did not fall into a particular category were identified as "other".

A total of four overarching areas were identified as challenges participants' experienced in Kibera (Table 7): immediate risk to life, pregnancy, deviance/violence and resources/needs. Access to resources and needs was most commonly represented as a significant challenge in Kibera. Deviance and violence, such as drugs use and theft, was also a popular challenge addressed by adolescents in Kibera. A small percentage of participants perceived pregnancy as the greatest challenge of living Kibera. As participants were not mothers themselves, these results suggest that pregnancy may not be a typically perceived challenge when it is not experienced personally.

The fears of participants were also documented using identical categories of immediate risk to life, pregnancy, deviance/violence and resources/needs.. A breakdown of participants' greatest fears varied from that of participants' greatest challenges in Kibera. Endorsed fears were more closely distributed amongst Life Risk, Deviance/Violence and Resources/Needs. Similarly to participants' greatest challenges, a small proportion of the population indicated primary fears of pregnancy.

Table 8. Participant Descriptives: Status of Guardians

Category	n	Percent
Parent: Yes	54	80.6
Parent: No	10	14.9
Career: Unemployed	14	21.9
Career: Unstable	37	54.1
Career: Stable	13	19.5

All participants lived with a guardian at home. Table 8 indicates that a large amount of participants live with at least one parent. Participants indicated the nature of their guardians' employment status as represented by three categories: unemployed, unstable employment, or steady employment. As indicated in table 8, about half of participants endorsed unstable guardian careers, while the remaining half was split between unemployment and careers offering stable employment.

Descriptive statistics of the psychological measures across areas of self-esteem pro-social behavior and emotional stress were conducted. As noted in table 9, a large standard deviation was indicated relative to the mean within risk factor scores. In addition, Table 9 indicates that participant scores also ranged widely across measures of self-esteem and emotional stress (overall SDQ).

Table 9. Participant Descriptives: Overall Variable Scores

Score	*n*	*M*	*SD*
Protective Factors	64	6.30	1.243
Risk Factors	64	6.70	3.064
Well-Being	64	6.52	1.168
Self-Esteem	64	19.08	3.970
Overall SDQ	64	12.54	5.869
ProSocial Behavior	64	7.31	2.023

Developmental Analyses

The second research question aimed to investigate whether there were significant differences between younger and older adolescents on the risk and protective factors, sense of well-being and psychological measures of self-esteem, pro-social behavior and overall emotional

stress. T-tests were conducted to explore developmental outcomes of younger (12-14 years) and older adolescents (15-16 years). Findings indicated that there were no significant differences in perceived experiences and outcomes on psychological measures between younger and older adolescents. While age has historically accounted various developmental differences in social-emotional functioning and behavior between adolescents of different ages, there does not seem to be notable differences between the two groups of female adolescents in Kibera in this study.

Table 10: Scores of Older Versus Younger Adolescents on Summary Measures

Score	*Age*	*M*	*SD*	*T-test*	*P-Value*
Protective Factors	12- 14	6.28	1.234		
	15-16	6.32	1.282	-.118	.906
Risk Factors	12- 14	6.21	2.648		
	15-16	7.48	3.537	-1.646	.105
Well-Being	12- 14	6.46	1.211		
	15-16	6.60	1.118	-.460	.647
Self-Esteem	12- 14	18.82	3.790		
	15-16	19.28	4.258	-.451	.654
Overall SDQ	12- 14	13.46	6.361		
	15-16	11.36	4.812	1.412	.163
ProSocial Behavior	12- 14	7.03	2.032		
	15-16	7.64	1.955	1.197	.236

Correlational analysis

The third research question investigated relationships among the measured variables in the study: risk factors, protective factors, sense of well-being and measures of self-esteem, pro-social behavior and emotional stress. The derived correlation matrix of variables is presented in Table 11. An examination of the table indicates a significant relationship was found between

self-esteem and overall SDQ ($p < .05$.) A negative relationship indicated that as overall emotional stress decreases self esteem increases. Conversely, as self-esteem decreases, overall emotional stress increases. No additional relationships between variables achieved statistical significance.

Table 11. Correlation Matrix

	Protective Factors	Risk Factors	Well-Being	Self-Esteem	Overall SDQ	ProSocial Behavior
Protective Factors	1.00	-.193 .126	-.020 .878	-.078 .543	-.033 .795	-.070 .582
Risk Factors		1.00	.088 .490	.026 .837	-.233 .063	.059 .641
Well-Being			1.00	-.031 .808	-.068 .596	.062 .624
Self-Esteem				1.00	-.291 .019*	.211 .091
Overall SDQ					1.00	-.116 .359
ProSoical Behavior						1.00

**p<.05*

Regression Analyses

The fourth research question was designed to evaluate the extent to which risk factors, protective factors, self-esteem, and measures of stress and pro-social behavior predicted sense of well-being in this sample of adolescents. A summary of the regression model is presented in Table 12 indicating the percentage of variance in participants' well-being scores accounted for by the predictor variables of risk factors, protective factors, overall emotional stress, pro-social behavior and self-esteem. The results indicate that only a very small amount of the variance

(1.6%) is explained by the five predictor variables in the model. An ANOVA indicated that this model not did significantly predict well-being (F=.194 P<. 964).

Table 12: Regression Coefficients Predicting Well-being

	B	*SE B*	*β*	*(t)*	*P-Value*
Protective Factors	-.008	.126	.009	-.065	.948
Risk Factors	.026	.052	069	.505	.616
Self-Esteem	-.019	.041	-.063	-.455	.651
Overall SDQ	-.013	.028	-.063	-.449	.655
ProSocial Behavior	. 037	.077	.064	.479	.634
R2		.016			
F		.194			

The fifth research question was designed to evaluate to what extent risk factors, protective factors, well-being, and measures of stress and pro-social behavior predict sense of self-esteem in this sample of adolescents. A summary of the regression model is presented in Table 13 indicating the percentage of variance in participants' self-esteem scores accounted for by the predictor variables of risk factors, protective factors, overall emotional stress, pro-social behavior and well-being. An ANOVA indicated that the model is not predictive of self-esteem, showing that 11.5% of the variance in self-esteem is explained by the model.

Table 13: Regression Coefficients Predicting Self-Esteem

	B	*SE B*	*β*	*(t)*	*P-Value*
Protective Factors	-.280	.402	-.088	-.697	.489
Risk Factors	-.079	.168	-.061	-.469	.641
Overall SDQ	-.189	.086	-.281	-2.190	.033
ProSocial Behavior	.323	.245	.164	1.319	.192
Well-Being	-.191	.421	-.057	1.319	.651
R2		.115			
F		1.512			

*p < .05

CHAPTER V

DISCUSSION

The purpose of the present study was to evaluate the effectiveness of CFK programs on psychological functioning of adolescent females in Kibera, Kenya. With the implementation of the study, challenges with data collection experienced once on the ground in Kenya required adjustments to the research questions and subsequent data analyses. Analyses of the revised research questions focused on describing the perceptions and life experiences of adolescent girls living in a large slum in sub-Saharan Africa. The research questions also examined developmental differences of younger versus older adolescents and investigated relationships between risk factors, protective factors, perceived well-being and psychological measures of self-esteem, pro-social behavior and emotional stress. Finally, analyses of the data aimed to determine predictive variables of both well-being and self-esteem through regression models.

Descriptive statistics were conducted to obtain information regarding perceptions of life of adolescent girls in Kibera. Means, standard deviations, and ranges were found to define commonalities and existing differences amongst girls' perceived risk and protective factors. Themes were found in the data when examining participant responses to open-ended questions in the demographic survey. Girls frequently reported basic needs as primary sources of challenge and fear within Kibera. For example, participants commonly endorsed barriers to access of clean water, electricity, indoor plumbing (toileting), money for food and school fees. While participants did endorse problems with violence such as theft, drugs and fighting and life-altering

concerns with rape, disease and death, these were less commonly represented in the data. This poses both positive and negative implications for girls in Kibera. Positively, girls' were less likely to endorse the presence of such drastic and dangerous experiences, indicating that this is not the most prevalent thought in the forefront of these girls' minds. Conversely, it is critical to note that these young girls struggle to even have their basic, most primitive needs met. Adolescents of 12-16 years consumed with constant attention on whether they will attend school the following day or have enough food to feed their family disrupts the natural progression of development. Adolescence is a critical period of self-identify, exploration and experimentation (Fadda, Scalas, & Meleddu, 2015). When individuals are pre-occupied with fulfilling the lower levels of their needs hierarchy (e.g. meeting basic needs), higher level, abstract concepts such as self-identity become increasingly distant and remote concepts. Participant summary scores on psychological measures supported findings from previous literature. For instance, a study exploring mental health, social support and self-efficacy in orphan and non-orphan adolescent in Kenya used the Rosenberg Self-Esteem Scale (Puffer, et. al, 2012). Findings from this study indicated similar summary scores to the current study, suggesting commonalities across multiple samples of adolescents in Kenya.

To test the second research question, participants were grouped into two age categories (younger versus older adolescents) to evaluate developmental differences. Younger adolescents were composed of participants 12-14 years of age, older adolescents were made up of participants 15-16 years of age. Descriptive data was conducted for each of the two age groups and T-Tests were conducted to compare age groups across variables (risk factors, protective

factors, well-being, self-esteem, pros-social behavior, emotional stress). No significant differences were found between younger and older adolescents on the various measures. Cultural norms and expectations of females living in Kibera and the greater Sub-Saharan African region may in part account for the similarities seen across ages. For instance, females in Kibera are often expected to begin earning a wage to contribute to the family income or help to look after younger children in the home. Given the demands of extreme poverty in this region, girls are likely to begin this role of caretaker or find work at a young age. As a result, girls may be forced to "grow up" out of necessity years before they are developmentally ready for such responsibility (Wendoh, 2013). Differences in developmental outcomes may be more prevalent when comparing girls with a wider age gap. For example, girls under 10 years old may present with developmental perceptions and life experiences markedly different from girls in teenage years.

An additional t-test was conducted in order to determine if outcomes differed for participants who attended government (public) school, considered the ideal school type, and participants who attended community (private school). Results presented in Table 14 did not indicate significant differences on the outcome variables between participants who attend government and community school in Kibera. This suggests that school type may not have a significant impact on mental health functioning and experience of life in Kibera.

Table 14: Scores of Government versus Community School Adolescents on Summary Measures

Score	*School Type*	*M*	*SD*	*T-test*	*P-Value*
Protective Factors	Gov.	6.31	1.255		
	Comm.	6.28	1.251	.122	.716
Risk Factors	Gov.	6.54	3.052		
	Comm.	6.90	3.121	-.457	.973
Well-Being	Gov.	6.60	1.090		
	Comm.	6.41	1.268	.632	.542

Self-Esteem	Gov.	18.829	4.5081		
	Comm.	19.207	3.2225	-.379	.099
Overall SDQ	Gov.	13.11	6.048		
	Comm.	12.07	5.669	.708	.600
ProSocial Behavior	Gov.	7.14	1.611		.
	Comm.	7.41	2.428	-.534	015

Results from the current study revealed a significant negative relationship between self-esteem and overall emotional stress. Specifically as reported emotional stress decreased among participants, reported self-esteem increased. This finding is especially relevant, given that stress is likely to be experienced as a result of environmental challenges faced by adolescent girls in the context of urban poverty. Given the high number of stressors in Kibera, the level of self-esteem amongst adolescents would be reasonably expected to fall within the low range. However, the impact of CFK on youth in Kibera may hold strong implications for reduced emotional stress and therefore improved self-esteem. It can be assumed that mediating factors such as sense of belonging found through CFK participation, mentorship, learned social skills and various additional ways to educate youth enhance social emotional functioning and therefore influence life trajectories in the long run. Although data and evidence to support this is scarce, research has begun to lead the way for future studies on this topic.

Results did not yield additional significant relationships between risk factors, protective factors, well-being and performance on psychological measures of self-esteem, pro-social behavior and emotional stress. The constellation of protective factors that so many of participants endorsed suggest significant resiliency despite adverse conditions. Thus, results may suggest that adolescent females living in urban poverty in Kibera, although exposed to detrimental life

experiences and risks part of everyday life, may overcome such obstacles through social networks, youth programming, and internal motivators. In the absence of a control group within Kibera the adolescent girls in this study in Kibera do not appear to demonstrate distinct patterns of psychological problems or low mental health status based on current data. Findings from this study can reinforce the current research base on social emotional effects of poverty.

A post hoc analysis was conducted to explore possible relationships between summary variables and age of participants. Results did not reveal any significant relationships between age and the measures of the psychological functioning and experiences of adolescents in Kibera. Findings can be found below in Table 15.

Table 15: Correlation Matrix Including Age as a Continuous Variable

	Age	Protective Factors	Risk Factors	Well-Being	Self-Esteem	Overall SDQ	ProSocial Behavior
Age	1.00	.082 .520	.090 .478	.180 .154	-.010 .940	-.043 .738	.011 .934
Protective Factors	.082 .520	1.00	-.193 .126	-.020 .878	-.078 .543	-.033 .795	-.070 .582
Risk Factors	.090 .478	-.193 .126	1.00	.088 .490	.026 .837	-.233 .063	.059 .641
Well-Being	.180 .154	-.020 .878	.088 .490	1.00	-.031 .808	-.068 .596	.062 .624
Self-Esteem	-.010 .940	-.078 .543	.026 .837	-.031 .808	1.00	-.291 .019	.211 .091
Overall SDQ	-.043 .738	-.033 .795	-.233 .063	-.068 .596	-.291 .019	1.00	-.116 .359

ProSoical Behavior	. 011 .934	-.070 .582	.059 .641	.062 .624	.211 .091	-.116 .359	1.00

Regression analyses were conducted in order to determine predictors of two outcome variables: well-being and self-esteem. Historically, literature has supported significant influences of social connections/social activities and role models on both self-esteem and well-being. Similarly, self-esteem and well-being have been found to strongly correlate with each other. The current results did not provide significant support for study variables to predict well-being or self-esteem. Thus, participants' level of well-being and level self-esteem is not predictive in nature and is dependent upon the individual level. Potential limitations of this study are discussed below which may address and account for these findings.

Overall, perceptions of life experiences of individuals and subsequent view of oneself may not play a significant role in determining detrimental effects of potential risk factors or accounting for the mediating effects of protective factors on adolescent female youth in Kibera.

The current study informs the literature by offering insight into the lives of female adolescents living in Kibera. The data addresses common risk factors and protective factors endorsed by girls living in this region and suggest implications related to psychological functioning across various measures. However, there are a number of limitations that need to be acknowledged when interpreting the findings. One limitation involves the logistics of international data collection. The current study was carried out within the context of Kibera and the greater setting of Nairobi, Kenya. The Kenyan government provided unique challenges to data acquisition following initial research design. The Republic of Kenyan mandated approval to conduct research within the country of Kenya. All plans for the study were included in the application including measures being used, specific procedures for data collection and

participants of interest. The application was approved, granting access to continue with the project prior to departure to Africa. Challenges were presented once on the ground. The investigator was faced with a secondary research approval process through the city of Nairobi. Initial plans for data collection were adjusted based on rules and regulations that were enforced. Participants were limited to those involved in CFK programming, due to the association between UNC and CFK. This differed from the initial intention to utilize participants involved in CFK to those who are not involved. In addition, initially planned semi-structured, recorded interviews with participants were not part of the data collection due to further restraints.

There are several disadvantages to these modifications. The lack of comparison group did not allow for evaluation across individuals receiving differing levels of protective factors in regards to community programming. While this information is useful for various reasons, the direction of the research study shifted. The current study was unable to provide insight into the differences in perceptions of well-being that may exist between adolescents who have particular supports versus those who do not. The current data may not be generalizable to adolescent females in Sub-Saharan Africa in regards to influences and relationships of well-being if individuals are not involved in some type of community programming.

In light of the challenges experienced with data collection, it is acknowledged that all participants of the current study were exposed to common protective factor of CFK that a great proportion of girls in Kibera do not have. There may be greater variance when looking at group of participants in CFK programming and girls who are not in CFK (or similar) programming to examine relationships, trends and predictability in perceptions, experiences and outcomes of psychological functioning.

Another significant limitation to consider is the sample size. The study intended to obtain

data from a markedly greater number of participants. The coordination and logistical difficulties encountered in Kibera impacted the sample size available for study participation (n=67). Therefore, it is undetermined whether effects would be stronger or relationships would look differently given a large sample of adolescent females in Kibera. Increasing the sample size would be useful when conducting future research to strengthen the power of the relationships across variables. While the data sample is intended to be representative of the greater population of female adolescents in Kibera, there is great variability amongst individual identifying information. This could be greater controlled for through a larger sample that encompasses both greater and equal groups based on demographic variables. In addition, the participant demographic breakdown was uneven. For instance, the number of participants from individual villages, ethnic backgrounds and age varied greatly based on accessibility.

The number of participants within individual demographic categories provides potential for future exploration of the research. Specifically, future research may examine more deeply the predictors of certain heightened demographic groups. Of significance in the current study, 51.6%, or 33 participants, of all participants identified with a Luo ethnic background. 34.4% (22 participants) resided in the village of Soweto, and 51.6% of total participants lived at home in medium-sized families (5-8 individuals) as opposed to small or large family size. In addition, 60% of the total participants were 12 or 13 years old, demonstrating a significant amount of the girls falling towards the younger end of the sample.

Future research could investigate why these particular groups were more heavily represented than others. Guiding questions may include: What are the reasons for these distinctly high group memberships? Are participants more likely to possess certain protective factors, such as community program involvement, if they have a similar demographic profile as outlined

above? Are these variables predictive of increased psychological health for clear reasons? Are there differing norms between villages and/or ethnicities that pre-dispose individuals to certain views of social behavior and sense of self? Lastly, are participants already pre-exposed to certain risk and resiliency factors based on village or ethnic affiliation? Alternatively, are the demographics simply on accessibility of the participants and insignificant in regards to demographic differences? There are many ways to analyze this information further and make sense of the current participant identifying information.

Additional demographic information that was collected was not used to explore variation in developmental outcomes of participants. Additional exploration of the participant group may be useful to explore whether there are differences as a result of ethnicity, village in Kibera or type of school affiliation (public vs. private school). Further, including the family size in analyses may yield implications for level of responsibility in the home and associated challenges, perceived fun etc. to explore differences in one's experience. There may not be sufficient data to determine predictive relationships with the current sample and information utilized. Additional information on background history, attitude at home towards mental health, etc. may be useful to determine differences within the population.

Further, a limitation is noted in regards to age groupings when evaluating developmental differences between participants. For instance, there may be potential for trending significance or true significance if ages were broken down individually. Variability of responses may have been affected by the size of the two age groups (39= younger, 25= older). Follow up studies may further explore age differences by examining different groupings.

Additionally, cultural differences may account for responses within the data. While measures were taken to provide modifications to surveys to best fit the culture of the population,

slight variation in English proficiency and understanding may have influenced individual survey responses. Logistics of time and restraints placed on data collection in Nairobi influenced the method this was carried out. Further steps should be taken in the future to screen for cultural accuracy of measures, wording and ensure comprehension. For instance, a sample of participants may be selected to fill out designated tools and used to screen for consistency and understanding prior to actual data. Further, participants in this region of Africa may be familiar with scientists and researchers conducting studies investigating the effects of poverty on children's development.. It's possible that participants answered questions in a way that would please the researcher, with the goal of addressing particular concerns and challenges.

The survey questions were initially intended to guide semi-structured interviews and generate follow-up discussions with selected participants; however, the implementation of audio recordings as well as the logistical aspect of obtaining participants for interviews went beyond the international governmental restrictions placed on the current study. As a result, these responses provided in the demographic survey were reviewed and used to categorize life experiences in regards to risk and protective factors to measure perceived well-being.

Many participants expressed fears of rape, stealing and walking alone at night as part of everyday life in Kibera. Fear of fire and homes burning down were also frequently expressed. Due to the poor living conditions in Kibera, illness often spreads quickly and medical care is continuing to develop. A fear relative to illness and death of family members and loved ones was an additional commonly noted fear. Similar to participant fears, common challenges experienced living Kibera were also endorsed. Specifically, economic challenges were widespread. For instance, participants supported family struggles to pay school fees, make rent payments for shanty houses, and obtain enough food to stop feelings of hunger. Proper

sanitation, access to clean water and electricity and maintaining adequate hygiene were prevalent concerns of participants as well. Participants had recurrent ideas on what could be changed about Kibera. For instance, a considerable amount of participants expressed a desire to improve cleanliness of the environment. The dirtiness of living conditions affects life in multiple aspects, as noted previously (i.e. spread of diseases such as Cholera, hygiene, clean water). While these popular fears and concerns were represented by a copious selection of participants, there are numerous organizations, such as CFK, that are attempting to combat such issues through education. To highlight this, various participants indicated that their favorite part of Kibera is the presence of CFK and/or programs introduced by the U.K. and U.S.A. Encouraging themes were also identified. Participants endorsed role models within the community and within their family units. For example, constant role models mentioned were participants' mothers, fathers, guardians and extended family members. Pop culture figures from the U.S.A. were frequently identified role models as well. Participants also often used positive qualities to describe themselves. For example, physical attributes and personality traits were reported. In addition, participation in activities that promote happiness and joy were cited across a wide range of surveys.

These responses suggest that struggles noted in previous literature research are existent and genuine concerns for this population in Kibera currently. This information could be used in future research to design methodologies that delve deeper into the real experiences that are detrimental to development and pose significant risk factors for adolescent females in urban poverty. Responses also indicated hope and optimism amongst the population, suggestive that protective factors and resiliency in the midst of environmental adversity are present. Qualitative research design with the use of interviews may better explore these areas. This may guide the

way in which interventions are designed and offer perspective to charitable organizations providing assistance moving forward.

In light of the limitations of the current study and the results that were obtained from the data, follow-up of measures may better inform researchers of the developmental trajectories related to well-being of female adolescents in Kenya. Further, questions generated as a result of the participant responses across surveys may also contribute important information to youth mental health development. In addition to collecting data from participants, future research may be useful in order to gain diverse perspectives from individuals who work closely with the particular population. For instance, mentors, parents/guardians or additional trusting adult figures may offer critical knowledge on participants in an objective manner to offer an alternative view of well-being.

Implications

This study may inform and strengthen the practice of psychologists and other practitioners working with adolescents in different cultural contexts. . The role of individual psychologists and practitioners varies greatly across cultural and educational settings . A wide range of functions of a school psychologist is critical in providing best practices to students. Such roles may include assessment, consultation, counseling/therapy intervention and advocacy for students. These findings can guide intervention strategies for students that demonstrate distinct psychological risk factors and presenting behavior associated with urban poverty and cultural norms.

In order to best understand and subsequently offer appropriate supports to students, practitioners must comprehend the background and cultural expectations to which a student is exposed. The way in which individuals become socialized within the world is a learned process.

People become accustomed to societal norms and a sense of human value is derived as a result. For instance, the gender roles and dynamics of both dominance and oppression within a society are understood as the expectation. Messages are received from inner and outer social networks, such as interpersonal, institutional and structural. Once normalized, standards of society become invisible. They are simply accepted and followed. These norms impact how individuals perceive the world and view of oneself, influencing choices, life experiences and view of potential one's for the future.

Fortunately, what has been learned can be unlearned. Protective factors, such as youth programming, may be an effective way in which harmful cultural and societal expectations can be unlearned. For instance, CFK's Daughters United Program aims to educate and empower young females to break stereotypes ad cultural expectations for their future, thus altering their perception of the world and allowing for exposure to different societal norms. This process of learned socialization holds significance when educating young girls living in regions of poverty and risk such as Kibera. It is critical to break detrimental pre-determined norms in order to improve well-being, promote self-esteem and bolster and expand one's possibilities for the future.

Developmental differences in age may exist in certain cultures or certain populations of adolescents, however, not generalizable across adolescents, societies and regions of the world. It is important to consider cultural implications before forming ideas about individuals based on age or grade level. For example, girls from a particular background (e.g. acute poverty with many risk factors) may have family and/or community responsibilities much earlier in life than those from comfortable suburbia, therefore forming different expectations at various ages/stages of childhood. Those who must care for their families and earn a living will demonstrate

developmental differences at an earlier age, and the gap may close earlier as well (showing less of a difference between older and younger adolescence, and more so between childhood and adolescence).

In conclusion, the findings from this study in one culture may inform the work of psychologists and other practitioners in best practice with students of diverse backgrounds and life experience sin other cultures. Specifically, the current study can inform practice with students with histories significant for urban poverty who present with social and/or emotional challenges. The current research could assist school psychologists in designing appropriate interventions, based on clinical interviews with students, administering conclusive assessments and evaluating the function of particular behaviors. A comprehensive understanding of prevalent risk factors that female youth living in urban poverty are exposed to, as well as the resiliency factors that may offer them protection, is important in guiding practitioners to provide supports contributing to positive mental health outcomes.

Appendix A

Assent Document

Principal Investigator: Allison Weinstein
Principal Investigator Department: School of Education
Principal Investigator Phone number: 508-340-1798
Principal Investigator Email Address: aweinste@live.unc.edu
Faculty Advisor: Rune J. Simeonsson
Faculty Advisor Contact Information: rjsimeon@email.unc.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. You do not have to be in this study if you don't want to and your participation to join the study is voluntary. If you join, you may choose to withdraw at any point and it will not effect your participation in CFK. We hope this study will help others in the future and you have the opportunity to be part of that.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

What is the purpose of this study?
The purpose of this research study is to learn more about the girls participating in CFK's Youth Sports Association and Daughters United. This study is interested in looking at how girls in CFK view themselves and perceive their skills learned through CFK.

How many people will take part in this study?
A total of approximately150 girls within CFK will take part in this study.

How long will your part in this study last?

Each person will be asked to be involved for approximately 30-60 minutes for this study. Each person will fill out surveys for approximately 20 minutes, with potential for follow up of 10 minutes. Some participants will then be asked to speak with the investigator and answer some general questions, lasting approximately 30 minutes with the potential for 10 minutes of follow-up. Interviews will be recorded, and will be stored for up to two years. Surveys will also be stored for up to two years.

What will happen if you take part in the study?

Girls who choose to take part in this study will be asked to complete 4 survey forms that each contains less than 20 questions. One survey asks basic information to get to know the participants better. The remaining 3 surveys ask questions about how participants feel about

themselves and their participation in the soccer program and Daughters United. For those selected for interviewing, participants will be asked to answer questions related to the surveys.

What are the possible benefits from being in this study? You may find this study interesting and learn more about yourself by filling out some forms about how you think and how you feel.

What are the possible risks or discomforts involved from being in this study? There are no known risks for participating in this study. If you have any concerns, let the researcher know,

How will information about you be protected? Information about all participants involved in this study will be kept confidential. All of the information obtained will be kept safe and unavailable to others except for the researcher and her assistant(s).

For those participating in interviews, check the line that best matches your choice:

_____ OK to record me during the study

_____ Not OK to record me during the study

What if you want to stop before your part in the study is complete?
You can choose to withdraw from this study at any time, with no penalty.

Will you receive anything for being in this study?
No.

Will it cost you anything to be in this study?
It will not cost you anything to be in this study.

What if you have questions about this study?
You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study, you can feel free to ask the researcher.

What if you have questions about your rights as a research participant?
All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement: I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

_____ _____

Your signature if you agree to be in the study Date

_____

Printed name if you agree to be in the stud

_____ _____

Signature of Research Team Member Obtaining Assent Date

_____

Printed Name of Research Team Member Obtaining Assent

Appendix B

Parent Consent Document

University of North Carolina at Chapel Hill
Parental Permission for a Minor Child to Participate in a Research Study

Consent Form Version Date: 5/3/2014
IRB Study # 13-0762
Title of Study: Evaluation of the Carolina for Kibera Program
Principal Investigator: Allison Weinstein
Principal Investigator Department: School of Education
Principal Investigator Phone number: 508-340-1798
Principal Investigator Email Address: aweinste@live.unc.edu
Faculty Advisor: Rune J Simeonsson
Faculty Advisor Contact Information: rjsimeon@email.unc.edu

What are some general things you and you child should know about research studies?
You are being asked to allow your child to take part in a research study. To join the study is voluntary.
You may refuse to give permission, or you may withdraw your permission for your child to be in the study, for any reason, without penalty. Even if you give your permission, your child can decide not to be in the study or to leave the study early.

Research studies are designed to obtain new knowledge. This new information may help people in the future. Your child may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you and your child understand this information so that you and your child can make an informed choice about being in this research study.
You will be given a copy of this consent form. You and your child should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

What is the purpose of this study?
The purpose of this research study is to learn about the positive outcomes of CFK programming. There is sufficient literature focusing on public health issues of youth in poverty, but a lack of psychological outcome data. Therefore, this study will evaluate CFK to provide information on psychological resiliency and protective factors of adolescent girls living in acute poverty.

Are there any reasons your child should not be in this study?
Your child should not be in this study if they have a difficult time understanding English, or cannot sit still for 20 minutes.

How many people will take part in this study?
A total of approximately 150 people in Kibrea will take part in this study.

How long will your child's part in this study last?

Participants involvement will range between 20 minutes to 60-70 minutes.

What will happen if your child takes part in the study?
Participants who take part in this study will be asked to complete 4 survey forms that each contains less than 20 questions. There is a demographic survey to obtain basic information about participants, as well as two surveys that ask questions about self-esteem and one survey that asks questions regarding overall psychological well-being and adjustment. For those selected for interviewing, participants will be asked to answer questions related to the surveys.

What are the possible benefits from being in this study?
Research is designed to benefit society by gaining new knowledge. Your child will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?
There are no known risks of participating in this study. Any concerns should be addressed with the researcher.

What if we learn about new findings or information during the study?
You and your child will be given any new information gained during the course of the study that might affect your willingness to continue your child's participation in the study.

How will information about your child be protected?
Records of surveys and audiotapes will be stored and locked in a filing cabinet in the CFK office. Any documents on the PI's computer will be password protected. Only the PI and academic advisors will have access to identifiable data. All data will be disposed of after 2 years post-study. Participants *will not be* identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

Check the line that best matches your choice:

_____ OK to record me during the study

_____ Not OK to record me during the study

What if you or your child wants to stop before your child's part in the study is complete?
You can withdraw your child from this study at any time, without penalty. The investigators also have the right to stop your child's participation at any time. This could be because your child has failed to follow or understand the instructions, or because the entire study has been stopped.

Will your child receive anything for being in this study?
Neither you nor your child will receive anything for being in this study.

Will it cost you anything for your child to be in this study?
It will not cost anything to be in this study.

What if you are a UNC employee?
Allowing your child to take part in this research is not a part of your University duties, and refusing to give permission will not affect your job. You will not be offered or receive any special job-related consideration if your child takes part in this research.

What if you or your child has questions about this study?
You and your child have the right to ask, and have answered, any questions you may have about this research. If there are questions about the study (including payments), complaints, concerns, or if a research-related injury occurs, contact the researchers listed on the first page of this form**.**

What if there are questions about your child's rights as a research participant?
All research on human volunteers is reviewed by a committee that works to protect your child's rights and welfare. If there are questions or concerns about your child's rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Parent's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily give permission to allow my child to participate in this research study.

_____

Printed Name of Research Participant (child)

_____ _____

Signature of Parent Date

_____

Printed Name of Parent

_____ _____

Signature of Research Team Member Obtaining Permission Date

_____

Printed Name of Research Team Member Obtaining Permission

Appendix C

Letter of Cultural Appropriateness

LETTER OF CULTURAL APPROPRIATENESS

To whom it may concern:

RE: LETTER CONFIRMING CULTURAL APPROPRIATENESS FOR ALISON WEINSTEIN RESEARCH

Carolina for Kibera provided Alison Weinstein support to conduct her research proposal among adolescent girls involved in CKKs programs in the Kibera Community.

Having reviewed the proposed tools for collecting data for the research, the CFK team has found them to be culturally sensitive and ethically appropriate to the local context. The research design and research tools were reviewed for cultural appropriateness by the Monitoring, Evaluation and Learning Department as well as the Department for Social Services.

This review ensured that several minimums were put in place, such as: linguistic appropriateness, easy readability and comprehension of tools by the target population and a pilot test for the tools to review quality and validate cultural appropriateness.

Thank you.

Appendix D

Participant Demographic Survey

PARTICIPANT DEMOGRAPHIC SURVEY

Directions: Please complete the following information or circle the best answer provided.

Today's date: Month _____ Day _____ Year_____

General Information:

Age: _____ Years

Birthday: Month _____ Day _____ Year_____

Current class in school: _____

What school do you attend? _____

Please circle the type of school you attend: Government / Community

How often do you attend school? _____

If not, how many years have you lived in Kibera? _____ Years

Were you born in Kibera? Yes / No

Ethnic Identity: _____

What village do you live in within Kibera? _____

Who is in your family at home and what is their relationship to you?

_____
_____
_____
_____
_____
_____

Please list the name and age of all siblings/cousins that live with you:

_____
_____
_____
_____

_____

What are your responsibilities when you go home after school?

_____
_____

Are you involved with any programs outside of CFK? Yes / No

If yes, please list: _____

Please Indicate the CFK program(s) you are involved with:
Youth Sports Association:_____
Daughters United: _____

Do you participate in CFK safe spaces? Yes / No

What do you enjoy the most about CFK programs?

_____
_____

What is the most important thing you have learned through CFK?

_____
_____

Current coach/mentor: _____

How long have you known your current coach/mentor? _____

Numbers of Years involved with CFK: _____

How many hours per week do you spend participating in CFK program(s)?
_____

What do you like to do for fun?

_____

How do you spend your school holidays?

_____

Do you have a best friend? Yes / No

How many close friends do you have? _____

What does your parent/guardian do for a living? _____

What are your dreams/goals in life?

_____

What would you like to be doing in 5 years? _____

10 years? _____

What is the greatest challenge for you living in Kibera?

_____
_____

If you could change one thing about Kibera, what would it be?

_____
_____

What is your favorite thing about Kibera?

_____
_____

Who is your role model? _____

What are your greatest fears?

_____
_____

Do you have a boyfriend/girlfriend? Yes / No

Please describe yourself:

_____
_____
_____
_____
_____
_____

Appendix E

Rosenberg Self-Esteem Scale

ROSENBERG SELF-ESTEEM SCALE

Instructions:

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

	STATEMENT	Strongly Agree	Agree	Disagree	Strongly Disagree
1.	I feel that I am a person of worth.				
2.	I feel that I have a number of great qualities.				
3.	I often feel that I am a failure.				
4.	I am able to do things as well as most other people.				
5.	I feel I do not have much to be proud of.				
6.	I take a positive attitude toward myself.				
7.	Overall, I am satisfied with myself.				
8.	I wish I could have more respect for myself.				
9.	I cetainly feel useless at times.				
10.	At times I think that I am no good at all.				

Thank you for your participation!

Appendix F

Strengths and Difficulties Questionnaire

STRENGTH AND DIFFICULTIES QUESTIONNAIRE

For each item, please mark the best box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of how things have been for you over the past six months.

	Not True	Sometimes True	Certainly True
I try to be nice to other people. I care about their feelings.			
I am restless, I cannot stay still for long.			
I got a lot of headaches, stoach-aches or sickness.			
I usually share what I have with others.			
I get very angry and often lose my temper.			
I would rather be alone than with people of my age.			
I usually do as I'm told.			
I worry a lot.			
I am helpful is someone is hurt, upset or feeling ill.			
I often have trouble sitting still.			
I have one good friend or more.			
I fight a lot. I make other people do what I want.			
I am often unhappy, depressed or tearful.			
Other people my age generally like me.			
I ameasily distracted, I find it difficult to concentrate.			
I am nervous in new situations. I easily lose confidence.			
I am kind to younger children.			
I am often accused of lying or cheating.			
Other children or young people pick on me or bully me.			
I often offer to help others (parents, teachers, children).			
I think before I do things.			
I take things that are not mine from home, school or elsewhere.			
I get along better with adults than with people my own age.			
I have many fears, I am easily scared.			
I finish the work I am doing. My attention is good.			

Appendix G

Raw Data Tables: Participant Descriptives

Data Table 1: Fun

		Frequency	Percent
Valid		3	4.5
	CFK	3	4.5
	Eating; Learning	1	1.5
	Friends	1	1.5
	Fun	1	1.5
	Helping	2	3.0
	Humor	2	3.0
	Learning	1	1.5
	Music	1	1.5
	Music; Friends	1	1.5
	Playing	3	4.5
	Poetry	1	1.5
	Reading	7	10.4
	Reading; Music	1	1.5
	Reading; Playing	1	1.5
	Sports	12	17.9
	Sports; Reading	1	1.5
	Sports; Theatrics	1	1.5
	Theatrics	17	25.4
	Theatrics; Playing	1	1.5
	Theatrics; Poetry	1	1.5
	Theatrics; Reading	1	1.5
	Theatrics; Sports	2	3.0
	Travel	2	3.0
	Total	67	100.0

Data Table 2: Role Model

		Frequency	Percent
Valid		3	4.5
	Family	9	13.4
	Famous	17	25.4
	Mentor	10	14.9
	Parent	24	35.8
	Teacher	4	6.0
	Total	67	100.0

Data Table 3: Goals

		Frequency	Percent
Valid		3	4.5
	Accountant	1	1.5
	Actress	1	1.5
	Athlete	2	3.0
	Bank manager	1	1.5
	Bank Manager	1	1.5
	Banker	2	3.0
	Businesswoman	3	4.5
	Doctor	15	22.4
	Doctor; Athlete	1	1.5
	Explorer	1	1.5
	Flight attendant	2	3.0
	Government	1	1.5
	Journalist	6	9.0
	Journalist; Teacher	1	1.5
	Judge	1	1.5
	Lawyer	6	9.0
	Mentor	1	1.5
	Move	1	1.5

	Musician	2	3.0
	Nurse	1	1.5
	Pilot	3	4.5
	Police	2	3.0
	Professor	1	1.5
	Teacher	4	6.0
	Work	1	1.5
	Working	3	4.5
	Total	67	100.0

Data Table 4: Challenges

Challenges

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		3	4.5	4.5	4.5
	Dirty	4	6.0	6.0	10.4
	Disease	6	9.0	9.0	19.4
	Drugs	2	3.0	3.0	22.4
	Education	1	1.5	1.5	23.9
	Homes	3	4.5	4.5	28.4
	Hygeine	5	7.5	7.5	35.8
	Money	5	7.5	7.5	43.3
	Noise	7	10.4	10.4	53.7
	Peer Pressure	1	1.5	1.5	55.2
	Pregnancy	2	3.0	3.0	58.2
	Rape	2	3.0	3.0	61.2
	Safety	3	4.5	4.5	65.7
	School Fees	8	11.9	11.9	77.6
	Theft	1	1.5	1.5	79.1
	Toilet	3	4.5	4.5	83.6
	Violence	9	13.4	13.4	97.0
	Water	1	1.5	1.5	98.5
	Work	1	1.5	1.5	100.0

	Total	67	100.0	100.0	

Data Table 5: Fears

		Frequency	Percent
Valid		3	4.5
	Alone	2	3.0
	Death	5	7.5
	Dirty	3	4.5
	Disease	6	9.0
	Dogs	1	1.5
	Education	4	6.0
	Electricity	2	3.0
	Evil	2	3.0
	G-d	4	6.0
	Injustice	3	4.5
	Negativity	1	1.5
	Pregnancy	2	3.0
	Rape	10	14.9
	Snakes	1	1.5
	Stress	2	3.0
	Theft	4	6.0
	Violence	12	17.9
	Total	67	100.0

Data Table 6: Favorite- Kibera

		Frequency	Percent
Valid		3	4.5
	Business	1	1.5
	CFK	5	7.5
	Cheap	3	4.5

	DU	3	4.5
	Football	3	4.5
	Free	2	3.0
	HardWork	2	3.0
	Home	4	6.0
	Love	3	4.5
	Parent	1	1.5
	Parents	3	4.5
	People	15	22.4
	Programs	10	14.9
	Programs; Fun	1	1.5
	Programs; People	1	1.5
	Shops	2	3.0
	Wash	5	7.5
	Total	67	100.0

Data Table 7: Parent Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		3	4.5	4.5	4.5
	Business	2	3.0	3.0	7.5
	Carpenter	1	1.5	1.5	9.0
	Clean	3	4.5	4.5	13.4
	ClothesWash	2	3.0	3.0	16.4
	Education	1	1.5	1.5	17.9
	Hair	1	1.5	1.5	19.4
	HealthWorker	1	1.5	1.5	20.9
	Hotel	1	1.5	1.5	22.4
	Job	3	4.5	4.5	26.9
	Labor	3	4.5	4.5	31.3
	None	3	4.5	4.5	35.8
	Plumber	1	1.5	1.5	37.3

	Protect	7	10.4	10.4	47.8
	Salon	3	4.5	4.5	52.2
	Sell	14	20.9	20.9	73.1
	Shop	1	1.5	1.5	74.6
	Solar Company	1	1.5	1.5	76.1
	Supervisor	1	1.5	1.5	77.6
	Tailor	7	10.4	10.4	88.1
	Tailor; Carpenter	1	1.5	1.5	89.6
	Tailor; Mechanic	1	1.5	1.5	91.0
	Teacher	1	1.5	1.5	92.5
	Unemployed	4	6.0	6.0	98.5
	Watchman	1	1.5	1.5	100.0
	Total	67	100.0	100.0	

Appendix H

Variable Score Rankings

Variable: Protective Factors, A + B + C

A) Role model:
    1. Unknown individual
    2. Community member
    3. Parent/family member
B) Socially Connected
    1. No best friend
    2. Yes best friend
C) Goals:
    1. No training
    2. Short term training
    3. Long term training

Variable: Risk factors, A + B

A) Challenges
    1. Lack of hygiene
    2. Lack of resources
    3. Drugs/alcohol
    4. Violence
    5. Pregnancy
    6. Disease
    7. Rape
    8. Death
B) Fears
    1. Lack of hygiene
    2. Lack of resources
    3. Drugs/alcohol
    4. Violence
    5. Pregnancy
    6. Disease
    7. Rape
    8. Death

Variable: Well-being, A + B + C + D

A) Experience of fun
    1. Social

2. Non-social

B) Favorite thing about Kibera
1. Not social
2. Social

C) Involvement in CFK programming
1. One program (Sports OR Binti Pamoji)
2. Two programs (Sports AND Binti Pamoji)

D) Parent employment
1. Unemployed
2. Unsteady employment
3. Steady employment

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