The Effects of Uncontrollable Stress on Subjective Well-Being and Coping Behavior in Urban Adolescents

Laura Darr Coyle

Loyola University Chicago

Recommended Citation

http://ecommons.luc.edu/luc_diss/95

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 2010 Laura Darr Coyle
LOYOLA UNIVERSITY CHICAGO

THE EFFECTS OF UNCONTROLLABLE STRESS ON
SUBJECTIVE WELL-BEING AND COPING BEHAVIOR
IN URBAN ADOLESCENTS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN COUNSELING PSYCHOLOGY

BY

LAURA D. COYLE

CHICAGO, IL

MAY 2010
ACKNOWLEDGMENTS

I would like to thank my dissertation chair, Dr. Elizabeth Vera, for her unfailing support and insight throughout my graduate school career. Her guidance and patience helped make the writing of this dissertation a consistently positive experience. Her wise advice has helped me through a number of challenges in the last several years, and I will be forever grateful for her immense contribution to my educational and professional development. I would also like to thank the other members of my dissertation committee. Dr. Rufus Gonzales has been an incredible mentor to me throughout graduate school. His guidance regarding research and clinical issues has contributed greatly to my development in both areas. Lastly, Dr. Meng-Jia Wu-Bohanon has helped me to gain confidence in my ability to perform research and think critically. Her unique ability to explain difficult statistical concepts has been an asset to the graduate students at Loyola University Chicago.

I would also like to acknowledge the current and former faculty and staff of Loyola’s Counseling Psychology Program. Specifically, Dr. Speight for her sense of humor and wisdom, Dr. Brown for his vast knowledge base, Dr. Thomas for her support and knowledge, Dr. Mildner for her encouragement, and Valerie Collier for her patience, consistency, and honesty. The members of my graduate school cohort have also played a very supportive role throughout this process. Namely, I would like to thank Kimberly
Vacek for the invaluable professional and personal support she has provided me over the last few years.

Lastly, I would like to thank my parents, grandparents, siblings, and cousins for their interest in and encouragement of my education. They were certainly the first to teach me how to think as a scientist. Of course, I would like to thank my husband Robert for his unique ability to help me put this entire process into perspective and find enjoyment even in challenging times. His companionship throughout graduate school has helped me to fill the last several years with stability, humor, and adventure.
TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................ iii

LIST OF TABLES ...................................................................................................................... vii

LIST OF FIGURES ................................................................................................................... ix

ABSTRACT ............................................................................................................................... x

CHAPTER ONE: INTRODUCTION .............................................................................................. 1
  Theories of Stress Exposure, Generation, and Reciprocation ............................................... 1
  Coping ................................................................................................................................ 4
  Coping with Uncontrollable Stressors .................................................................................... 7
  Subjective Well-Being ........................................................................................................... 9
  Rationale .............................................................................................................................. 11
  Research Questions ............................................................................................................. 12

CHAPTER TWO: REVIEW OF THE LITERATURE ....................................................................... 14
  Urban Adolescent Stress ......................................................................................................... 15
  Violence Exposure .................................................................................................................. 16
  Social and Economic Disadvantage ....................................................................................... 17
  Interaction of Social/Economic Disadvantage and Violence Exposure ............................... 20
  Urban Adolescent Coping ..................................................................................................... 20

CHAPTER THREE: METHODOLOGY ......................................................................................... 26
  Participants .......................................................................................................................... 26
  Procedure ........................................................................................................................... 27
  Instruments .......................................................................................................................... 28
  Positive and Negative Affect Schedule .............................................................................. 28
  Satisfaction with Life Scale ................................................................................................ 29
  Brief COPE .......................................................................................................................... 30
  The Life Events and Coping Inventory ................................................................................ 33
  Procedure ........................................................................................................................... 35

CHAPTER FOUR: RESULTS ...................................................................................................... 39
  Descriptive Statistics ........................................................................................................... 40
  Bivariate Relationships ...................................................................................................... 41
  Preliminary Analysis .......................................................................................................... 43
  Research Question 1 .......................................................................................................... 43
  Research Questions 2 and 3 ............................................................................................... 44
  Life Satisfaction ................................................................................................................. 46
  Positive Affect .................................................................................................................... 48
  Negative Affect ................................................................................................................... 49
LIST OF TABLES

Table

1. Descriptive Statistics for Positive Affect, Negative Affect, Life Satisfaction, Uncontrollable Stress, Controllable Stress, Active Coping, Adaptive Coping, and Maladaptive Coping ........................................41

2. Bivariate Correlations Among Life Satisfaction, Positive Affect, Negative Affect, Uncontrollable Stress, Controllable Stress, Active Coping, Adaptive Coping, and Maladaptive Coping ..........................42

3. Multiple Regression Values From Life Satisfaction for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................47

4. Multiple Regression Values From Life Satisfaction for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................48

5. Multiple Regression Values From Positive Affect for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................49

6. Multiple Regression Values From Positive Affect for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................49

7. Multiple Regression Values From Negative Affect for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................50

8. Multiple Regression Values From Negative Affect for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables ..................................................................................................................51
Multiple Regression Values Using Active Coping, Adaptive Coping, and Maladaptive Coping as Moderator Variables for the Relationship Between Uncontrollable Stress and Negative Affect

52
LIST OF FIGURES

Figure

1. Graph of Relationship Between Negative Affect and Uncontrollable Stress When Sample is Split by High Active Coping and Low Active Coping Groups........................................54
ABSTRACT

The purpose of this dissertation was to determine whether uncontrollable and controllable stressors differentially affected levels of subjective well-being in a group of ethnically diverse urban adolescents. Additionally, the researcher examined what types of coping skills were utilized in the face of high levels of uncontrollable stress. Lastly, a moderational model was proposed, wherein active coping was hypothesized to strengthen the inverse relationship between uncontrollable stress and subjective well-being. Results revealed that higher levels of uncontrollable stress were related to higher levels of negative affect. Additionally, the use of active and adaptive coping strategies was associated with higher levels of positive affect and life satisfaction. Adaptive coping was associated with higher levels of maladaptive coping. As expected, maladaptive coping was predictive of lower levels of subjective well-being. Lastly, youth who reported employing higher levels of active coping appeared to have more stable levels of negative affect than youth who reported employing lower levels of active coping. These results highlight the importance of tailoring prevention programs to urban youth, who are often faced with notably high levels of uncontrollable stress and may need support related to applying coping skills in their lives. Additionally, this research sheds light on the importance of addressing the value of resiliency in urban youth populations.
CHAPTER ONE
INTRODUCTION

The psychological, behavioral, and social effects of stressful life events during childhood and adolescence have been frequently studied within the psychological and educational literature (Cole, Nolen-Hoeksema, Girgus, & Gilda, 2006; Kim, Rand, Elder, & Lorenz, 2003; Rudolph et al., 2000). While many of these studies have revealed the deleterious effects of stress on adolescents, others have uncovered evidence of remarkable resilience in the face of adversity (Blum, 1998). One way to examine whether youth are thriving in the face of stress and adversity is by assessing their subjective well-being, which is defined as one’s subjective evaluation of their own well-being. The effects of stress on subjective well-being have been understudied especially within the adolescent population; however, the little research that is available provides valuable information. The following chapter will review the theories of stress exposure, generation, and reciprocation and define the following terms: uncontrollable stress, coping, and subjective well-being. Additionally, research questions for the proposed study will be introduced.

Theories of Stress Exposure, Generation, and Reciprocation

The most widely accepted definition of stress, provided by Lazarus and Folkman (1984) is transactional, in that the occurrence of stress is dependent upon the degree to which individuals perceive environmental conditions as challenging, threatening, or
harmful. While this definition may be adequate for adults, it is not necessarily
cognitively appropriate for children and adolescents. Grant et al. (2003) offered an
alternative definition of stress that is not dependent on cognitive appraisal; a process they
argued is not always possible for a child or adolescent faced with a difficult situation. As
such, Grant et al. (2003) defined stress as, “environmental events or chronic conditions
that objectively threaten the physical and/or psychological health or well-being of
individuals of a particular age in a particular society” (p. 449). According to this
definition, an event can be objectively labeled a stressor regardless of whether the child
or adolescent who experiences the stressor evaluates it as harmful or threatening.

Currently, there are three main theories that explain how stress plays a role in the
lives of adolescents. Stress-exposure models conceptualize stress as causing maladaptive
behavior and emotions (Cole et al., 2006; Rudolph et al., 2000). For example, this theory
would argue that a preponderance of stressful life events or perhaps one major stressful
life event (e.g. the death of a family member) would precede and thus contribute to an
individual becoming depressed or exhibiting maladaptive behavior. In this way, stress-
exposure models highlight the environmental contexts of adolescents’ lives, and more
specifically, the effects that stressful environments can have on the lives of young people
(Rudolph et al., 2000).

Conversely, stress-generation models conceptualize stressful events as being the
result of maladaptive behavior and emotions (Cole et al., 2006; Rudolph et al., 2000). In
other words, the existence of psychological impairment may cause individuals to
precipitate stress, and the effects of that stress will likely further contribute to
psychological impairment (Rudolph et al., 2000). For example, a young person suffering from depression may, as a result of their depressive symptoms, create interpersonal conflict through isolating and offensive behaviors. The stress-generation model highlights the importance of the individual’s role in the creation of stressful life events, and as such removes focus from the environment in which the individual resides. In support of this theory, Rudolph et al. (2000) examined the relationship between stress, depression, and externalizing disorders in a diverse group of adolescents (i.e. 58% European American). In this study, stress was classified as either dependent (self-generated), or independent (environmentally-generated). Rudolph et al.’s (2000) results showed moderate support for the stress-generation model, as youth with depression, as well as youth with both depression and externalizing disorders, were more likely to produce dependent stress than their non-depressed peers.

The last of the three major theories that explain how stress affects individuals is known as the reciprocal stress model, which is essentially an integration of the stress exposure and stress generation models. The reciprocal stress model holds that stressful life events will both predict maladaptive emotions and behavior as well as result from maladaptive emotions and behavior (Kim et al., 2003). In other words, the existence of stress in an adolescent’s life may cause him or her to become depressed. For example, a young person may develop depression after losing family member. Once depressed, the grieving adolescent may be more likely to precipitate stressful events than a non-depressed peer (i.e. damage friendships through isolating behavior). This model appears to be the most popular and data-supported of the aforementioned theories.
Recently, both Kim et al. (2003) and Cole et al. (2006) found empirical support for the reciprocal stress model in adolescent samples. Cole et al. (2006) found, when controlling for prior levels of the outcome in both cases, that stressful life events predicted subsequent depressive symptoms, and depressive symptoms predicted subsequent stressful life events in a diverse adolescent sample. Kim et al. (2003) obtained similar findings from a sample comprised of youth residing in a rural area. Specifically, the results demonstrated that stressful life events significantly and positively predicted delinquent behaviors after controlling for previous levels of delinquent behaviors.

Coping

The constructs of stress and coping are, in several ways, inseparable. Many researchers have studied the use of coping skills as a means of reducing the negative effects of stress. As such, there are numerous studies that have examined the types of coping mechanisms used by adolescents, as well as the effectiveness of those mechanisms. In order to understand how coping mechanisms are employed by adolescents, it is necessary to define coping, as well as differentiate between types of coping. A review of the more prominent theories of coping is provided in the following section.

In their review of the coping literature, Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001) labeled the three most commonly accepted theories of coping: problem versus emotion-focused coping, primary versus secondary control coping, and engagement (approach) versus disengagement (avoidance) coping. Other
dimensions that have been used relatively less often include self-focus and external focus of coping, cognitive (thought-based) and behavioral (action-based) coping, and active and passive coping (Compas et al., 2001; Rudolph et al., 1995). Clarke (2006) defined active coping as a broad category of coping that represents approach coping, primary control coping, and problem-focused coping. While there are subtle differences among these subtypes of active coping, all represent “purposeful, constructive attempts to actively manage a stressor or circumstances surrounding a stressor” (Clarke, 2006, p. 12). Active coping strategies include but are not limited to: cognitive restructuring, direct problem-solving and seeking understanding (Clarke, 2006).

Of the aforementioned theories, perhaps the most often used definition of coping was provided by Lazarus and Folkman (1984), who defined it as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (p. 141). As such, coping is viewed as a dynamic and ongoing process that changes as a result of changing demands (Compas et al., 2001). Lazarus and Folkman (1984) differentiated between approach coping and avoidance coping. Approach coping is comprised of both problem and emotion focused coping (Elgar, Arlett, & Groves, 2003; Lazarus & Folkman, 1984). The goal of problem-focused coping is to solve the problem between the self and the environment, whereas the goal of emotion-focused coping is to palliate negative emotions that arise as a result of stress (Compas et al., 2001; Lazarus and Folkman, 1984). It should be noted that Lazarus and Folkman’s (1984) definition of coping was not specific to adolescents. This definition does not, however, specifically state that the “cognitive
and behavioral efforts” need to be volitional, so it translates relatively well to adolescent populations. The degree to which adolescents are able to appraise stressors as “taxing or exceeding” is debatable and likely depends upon how conscious one must be of this appraisal process. For example, one could argue that adolescents are quite capable of experiencing a negative emotion as a result of stress. This experience could be considered by some to be a valid form of stress appraisal.

Still another definition of coping was provided by Compas et al. (2001), who defined it as, “conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances. These regulatory processes both draw on and are constrained by the biological, cognitive, social and emotional development of the individual” (p. 89). This theory also proposed that stress responses can be distinguished on the dimensions of voluntary versus involuntary responses and engagement versus disengagement responses. The advantage of this model is that it accounts for both volitional and automatic responses to stress and therefore may be more applicable to adolescent populations (Compas et al., 2001). While the inclusion of automatic stress responses in coping theories has been a subject of debate, it is worth nothing that such responses are often employed as a way of managing stress without conscious volition (Compas et al., 2001).

In their review of the coping literature, Compas et al. (2001) reviewed theories of coping that have not found dichotomous distinctions in coping behavior. After factor analyzing ten coping scales, Ayers, Sandler, West, and Roosa (1996) found four coping factors: active coping, social support (both emotion and problem focused), distraction
(release of physical energy and distracting action), and avoidance (cognitive avoidance and avoidant action). Similarly, Walker, Smith, Garber, and Slyke (1997) discovered three coping factors: active coping, passive coping (self-isolation and behavioral disengagement), and accommodative coping (acceptance, distract-ignore, and self encouragement). Currently, there appears to be no clear consensus in the literature regarding the underlying theoretical structure of coping mechanisms.

Coping with Uncontrollable Stressors

While many researchers have attempted to categorize stressors in order to understand how specific types of stress may predict differential outcomes, very few have examined whether the controllability of stressors has any effect on psychological outcomes and the use of specific coping mechanisms in adolescent samples. Clarke (2006) defined controllability over a stressor as, “the degree to which the objective conditions of a stressful situation can be prevented or eliminated by the abilities, resources, or actions of a typically developing child or adolescent. Objective conditions do not refer to a child’s feelings or emotional responses to a stressor, but instead refer to observable events or experiences” (pg. 13). Examples of controllable stressors include a peer or sibling conflict, whereas examples of uncontrollable stressors include parental discord or moving to a new school (Clarke, 2006). Uncontrollable stress during adolescence has been shown to predict negative psychological outcomes, such as feelings of hopelessness, loss of control, and meaninglessness, all of which may lead to depression and the use of maladaptive coping responses, such as substance abuse (Landis et al., 2007; Newcomb & Harlow, 1986).
The normative coping response to a controllable stressor is generally active, in that one attempts to solve the problem. Active coping, however, is a non-normative response when coping with uncontrollable stressors, as passive coping strategies such as avoiding, accepting, or adapting to the situation may prove more useful (Clarke, 2006). Altshuler and Ruble (1989) found that children and early adolescents were more likely to attempt to alleviate uncontrollable stress through avoidance tactics than through attempting to change a situation, and these avoidance strategies became more cognitively advanced as children aged.

Attempting to cope with uncontrollable stressors through active coping may lead to a poor person-environment fit, and eventually maladjustment (Clarke, 2006). Active coping has been found to moderate the relationship between uncontrollable stress and hopelessness for urban adolescent boys, such that the association was stronger for boys who reported using more active coping (Landis et al., 2007). Similarly, children and adolescents who used active coping in response to controllable stressors have been found to have significantly fewer externalizing symptoms and higher social competence than those who use active coping in response to uncontrollable stressors (Clarke, 2006). Compas et al. (2001) also found that coping strategies are most effective when they are congruent with the controllability of the stressors. Therefore, while active coping appears to be useful when coping with controllable stressors, it may actually be harmful when employed to cope with uncontrollable stressors. Adaptive coping styles may be better suited for the specific nature of uncontrollable stress.
Subjective Well-Being

Research on subjective well-being (SWB) has revealed a tripartite model that is comprised of global life satisfaction, positive affect, and negative affect (Lightsey, 1996; Robbins & Kliwer, 2000). The cognitive component of SWB is life satisfaction, which is defined as a subjective assessment of the overall quality of one’s life (Diener, Emmons, Larsen, & Griffin, 1985). How frequently one experiences positive and negative emotions is considered the affective component of SWB. It is important to note that research has demonstrated that life satisfaction, although related, is a distinct concept from positive and negative affect. Similarly, positive and negative affect have also been demonstrated to be separate constructs. As such, all three domains should be studied separately (Lent, 2004).

Although research conducted on the topic of SWB has greatly increased in recent years, there remains an overall lack of studies that have examined the experience of SWB in children and adolescents (Lent, 2004; Nansook, 2004). Obtaining a better understanding of what predicts low levels of SWB in youth is important, as research has shown that SWB can serve as a buffer against mental illness (Nansook, 2004). In addition, the measurement of SWB can serve as a useful diagnostic tool for practitioners and other helping professionals who work with children and adolescents. Youth who are not experiencing high levels of SWB may need extra attention or psychological services, as they are at an increased risk for developing psychological disorders (Nansook, 2004). Both personal and environmental variables affect SWB; therefore, when stress arises in
one of these important areas, it may have a profound effect on an individual’s SWB (Lightsey, 1996.)

As stated previously, stress can have deleterious effects on a number of variables in the lives of adolescents. Whether the negative outcomes are behavioral, social, or emotional in nature, these effects can significantly alter the outcomes in a young person’s life. The effects of stress on SWB within the adolescent population have been understudied; however, the little research that is available provides valuable information. McCullough, Huebner, and Laughlin (2000) found that life events were significantly related to adolescent SWB reports such that positive daily events appeared to be the most crucial contributor for life satisfaction, while negative life events were the most crucial contributor for positive and negative affect. Ronen and Seeman (2007) examined the effects of trauma related stress on adolescent SWB and found that a greater sense of fear, a form of psychological stress, was linked to fewer positive feelings and more negative emotions. Interestingly, fear did not appear to affect levels of satisfaction with life (Ronen & Seeman, 2007).

There is also a dearth of research examining SWB in urban adolescents specifically. While many researchers have proposed that temperament plays the most important role in determining SWB, Vera et al. (2008) found that for urban adolescents of color, family context may be as or more important than personality variables in the prediction of SWB. When stress arises in the family domain (e.g. financial strain, divorce, or death of a family member), deleterious outcomes may be more likely to result for urban adolescents of color than for suburban and/or European American adolescents.
Rationale

Very few studies have examined the specific stressors that urban adolescents face, and even fewer have examined how stress experienced by urban adolescents might be related to subjective well-being. Additionally, the distinction between controllable and uncontrollable stress in the lives of urban adolescents has been directly examined minimally. In a review of the PsycINFO database using the key words “uncontrollable stress” and “controllable stress” only one study was obtained (Landis et al., 2007). As such, it is befitting to examine whether urban adolescents who experience higher levels of uncontrollable stress also experience lower levels of SWB and exhibit unique coping behaviors as compared to youth who experience lower levels of uncontrollable stress. Also, examining the potential moderating influence of various coping styles on the relationship between uncontrollable stress and subjective well-being could provide valuable information regarding unintentional side effects of using coping methods that are incongruous with the stressors they are intended to relieve. The results of this study have numerous clinical implications, as prevention programs or therapeutic interventions do not often consider the controllability of stressors when assisting adolescents in learning coping skills. Were this aspect of stress to be considered in prevention and intervention programming, it is possible that the efficacy of coping skills would improve, leading to numerous health and psychological benefits.
Research Questions

The first question designed by the investigator simply addressed the prevalence of uncontrollable stressors in the lives of the urban adolescent sample studied. Specifically, did this sample report higher percentages of uncontrollable stress than controllable stress? It was hypothesized that there would be a significantly higher percentage of uncontrollable stress than controllable stress for this sample.

The second question posed by the researcher addressed the relationship between uncontrollable stress and SWB and was comprised of two related sub-questions. First, was the number of uncontrollable stressors experienced by urban adolescents related to the SWB variables of positive affect, negative affect, and life satisfaction? Second, was the number of controllable stressors experienced by urban adolescents related to the SWB variables? It was hypothesized that there would be an inverse relationship between the number of uncontrollable stressors and both positive affect and life satisfaction. In other words, as the number of uncontrollable stressors increased, levels of positive affect and life satisfaction would decrease. Conversely, it was hypothesized that a positive relationship would exist between SWB and negative affect, such that as the number of uncontrollable stressors increased so too would levels of negative affect. An inverse relationship was also hypothesized to exist between controllable stressors and both positive affect and life satisfaction. Lastly, a positive relationship was expected to exist between controllable stressors and negative affect, such that as controllable stressors decreased, negative affect would also decrease. While the researcher expected both types of stressors to relate similarly to the SWB variables, it was expected that stronger
relationships would exist between uncontrollable stress and SWB than controllable stress and SWB.

The goal of the third major question posed by the researcher was to examine the relationship between various coping styles and subjective well-being. Specifically, were any of the three coping styles utilized in this study (active, adaptive, and maladaptive) related to the SWB variables of positive affect, negative affect, and life satisfaction? It was hypothesized that active and adaptive coping would be significantly positively related to life satisfaction and positive affect, whereas maladaptive coping would be significantly positively related to negative affect.

The fourth major question posed by the researcher addressed the relationship between uncontrollable stress and the aforementioned coping styles utilized by adolescents. Specifically, did the reported coping styles employed by the adolescents moderate the relationship between uncontrollable stressors and SWB? As defined by Baron and Kenny (1986), a moderator variable is “a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable” (p. 1174). The researcher hypothesized that use of active coping skills would increase the inverse relationship between uncontrollable stressors and both life satisfaction and positive affect as well as the positive relationship between uncontrollable stressors and negative affect. Likewise, use of avoidance or acceptance-based coping skills would decrease the inverse relationship between uncontrollable stressors and life satisfaction and positive affect and the positive relationship between uncontrollable stressors and negative affect.
CHAPTER TWO
REVIEW OF THE LITERATURE

The following chapter provides a review of the literature as it relates to urban adolescent stress and coping behavior. Adolescents residing in urban and/or low-income neighborhoods are often exposed to higher levels of uncontrollable stress than their non-urban peers (Landis et al., 2007; Self-Brown, LeBlanc, & Kelley, 2004). Not only do urban adolescents generally experience more stressors than suburban or rural adolescents, but the types of stressors they experience are also qualitatively different and generally more chronic (Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995; Landis et al., 2007). These stressors include but are not limited to: community violence, financial strain, housing evictions, pressure to join gangs, academic disparities, physical abuse, and separation from caregivers (Landis et al., 2007).

Many of the stressors experienced more commonly by urban adolescents are uncontrollable in nature. As previously defined, the controllability of a stressor refers to the degree to which a stressful situation can be prevented through actions, abilities, or resources (Clark, 2006). An alternative definition for the distinction between controllable and uncontrollable stress, provided by Landis et al. (2007) is, “the extent to which the adolescents’ behavior might be causally related to the event” (p. 1052). Stress that cannot be prevented through the actions, abilities, or resources of the adolescent is
defined as uncontrollable stress. Although many urban adolescents frequently experience uncontrollable stress, coping with such events has been understudied in this population. More recent research indicates that congruence between stressors and coping skills leads to optimal outcomes (Clarke, 2006; Compas et al., 2001; Landis et al., 2007). As a result, urban adolescents who employ active coping to manage uncontrollable stress may be at a disadvantage psychologically.

*Urban Adolescent Stress*

While theories that propose various pathways through which stress might affect adolescents were reviewed in the introduction, it is important to reiterate that much of the data that has been gathered in support of those theories was obtained from samples of mostly European American, suburban adolescents from middle to upper middle-class neighborhoods. While this theoretical information is helpful when conceptualizing how stress might lead to harmful outcomes, it is not clear if such theories are applicable for young people who may chronically experience a higher number of significant uncontrollable stressors, rather than an occasional acute stressor, such as might be the norm for suburban adolescents. The stress response to chronic uncontrollable stress (e.g. neighborhood violence, ongoing family financial difficulties) cannot be assumed to be the same as the stress response to an isolated uncontrollable event (e.g. death in the family). One major criticism of the adolescent stress literature is the lack of studies examining pathways through which urban adolescents are affected by stress (Self-Brown et al., 2004). In order to provide more information about the unique experience of urban adolescents from diverse ethnic and racial backgrounds, a review of the stress and coping
literature as it pertains to urban and diverse samples will be outlined in the following sections.

**Violence Exposure**

Research has demonstrated that urban youth are exposed to violence, an uncontrollable stressor, more frequently than non-urban adolescents. African American males have been shown to experience higher levels of stress via violence exposure than national samples (Carr Paxton, Robinson, Shah, & Schoeny, 2004). In addition to violence exposure, Carr Paxton et al. (2006) found higher rates of depression and post traumatic stress disorder within a sample of urban adolescents than within national samples. Importantly, Carr Paxton et al. (2006) found that direct victimization, as opposed to witnessing violence, was most predictive of depressive and PTSD symptoms. Brady and Donenberg (2006) studied a large group of urban adolescents with psychiatric diagnoses. Of this group, fifty percent endorsed seeing or hearing someone get killed, very badly hurt, or die (excluding TV/movies), and more than one third of youths thought that they or someone close to them would be killed or hurt very badly. Additionally, the researchers found that youth who are exposed to violence are at a higher risk for substance abuse and risky sexual behavior (Brady & Donenberg, 2006). Such statistics lead one to question what role violence exposure plays in the development of psychological disorders, as well as the role it may play in preventing treatment from achieving optimal efficacy.

Self-Brown et al. (2004) examined the effects of adolescent daily stress on the relationship between violence exposure and psychological outcomes in a sample of
almost entirely African American adolescents from an urban area. The results of an analysis that tested daily hassles as a moderator between violence exposure and psychological outcomes revealed that urban adolescents who struggle with the chronic, uncontrollable environmental stress of violence exposure are more likely to have difficulties managing daily stressors. As a result, adolescents who experience both high amounts of violence exposure and daily stressors are at increased risk for the onset or exacerbation of psychological problems (Self-Brown et al., 2004). The results of this study were consistent with previous research in that a significant main effect was found for violence exposure and emotional adjustment such that youth who were exposed to greater levels of violence were more likely to exhibit psychological difficulties (Self-Brown et al., 2004). Additionally, violence was more related to both internalizing (emotion-based) and externalizing (behavior-based) symptoms for adolescents who had higher levels of daily stressors (Self-Brown et al., 2004). Based on these results, Self-Brown et al., (2004) suggested that intervention programs focus on adolescents who are experiencing high amounts of both daily stressors and violence exposure.

*Social and Economic Disadvantage*

Many of the studies that have examined the relationship between stress and psychological outcomes for urban youth have focused on uncontrollable violence related stressors. It is important to note, however, that not all studies have found a relationship between neighborhood variables, such as violence exposure, and psychological outcomes. For example, Rasmussen, Aber, and Bhana (2004) found that neighborhood homicide rates were not associated with either exposure to violence or perceptions of safety.
Although many studies have found the opposite, this finding does highlight the importance of examining other potential uncontrollable stressors that might affect psychological outcomes for diverse, urban youth, such as those related to social and economic disadvantage. Specifically, the uncontrollable stress associated with poverty is important to examine based on its potentially stable and unchanging nature (Wadsworth & Berger, 2006).

Goodman, McEwen, Lawrence, Schafer-Kalkhoff, and Adler (2005) examined whether the construct of social disadvantage, which they proposed underlies both race/ethnicity and low socioeconomic status, had an influence on the stress levels of urban African American adolescents, as compared to non-Hispanic White urban adolescents. The results of the study revealed that social disadvantage was associated with increased stress, regardless of whether the disadvantage was defined in terms of race/ethnicity or socioeconomic status. Interestingly, race/ethnicity was more strongly related to perceived stress for students of higher socioeconomic status than lower socioeconomic status, indicating that when resources are low, the effects of race/ethnicity may tend to be “washed out” by stress related to financial insecurity. Goodman et al. (2005) also found that social ranking and subjective perceptions of status were predictive of stress. Therefore, race/ethnicity and socioeconomic status may not be risk factors in and of themselves, but rather are related to social hierarchies that may be the actual causal factor creating discrepancies between the stress levels of European American adolescents and adolescents of color, as well as adolescents from higher socioeconomic groups and those from lower socioeconomic groups (Goodman et al., 2005).
Wadsworth and Berger (2006) found that greater levels of poverty-related family stress were related to the future development of anxious or depressed behavior, even after controlling for initial levels of such behavior. Specifically, poverty-related family stress significantly predicted internalizing, rather than externalizing, behavior. It appears, therefore, that there are identifiable emotional costs to living in poverty or with chronic financial strain. These emotional costs only serve to promote an ongoing cycle of poverty wherein it becomes very difficult for children raised in poverty to overcome the social, physical, and emotional obstacles that prevent them from succeeding financially.

Other research has found that adolescent adjustment is negatively affected by social and economic disadvantage through the increased stress of parents and disrupted family processes (Stern, Smith, & Jang, 1999). Specifically, this occurred when parents with increased stress related to adversity disrupted their disciplinary behavior. As such, parent distress served as a mediator between adversity and disrupted parental control, which resulted in increased adolescent internalizing and externalizing outcomes (Stern et al., 1999). Additionally, parental discipline appeared to have more influence on externalizing problems, while adolescent perceptions of unsupportive parenting was a mediator of the relationship between effects of distress and disrupted discipline on internalizing problems (Stern et al., 1999). This research highlights the systemic effects of social and economic disadvantage; such stress affects adolescents directly as well as indirectly through their parents and other family members.
Interaction of Social/Economic Disadvantage and Violence Exposure

The effects of social and economic disadvantage and violence exposure are not necessarily mutually exclusive. Guerra et al. (1995) found that urban elementary school children displayed relatively high levels of aggressive behavior as compared to less disadvantaged samples. Additionally, they found that lower-income children were more likely to adopt beliefs that were accepting of aggression, which along with stressors, predicted future aggressive behavior. Further analysis revealed that low socioeconomic status was a mediator of the relationship between stressful events and individual beliefs. Also, life events stress, the uncontrollable stress of neighborhood violence, and beliefs approving of aggression “were related to low economic status but predicted aggression in the total population better than did low economic status” (Guerra et al., 1995, p. 527).

The authors of this study recommended interventions such as attempting to reduce stressful events associated with poverty (a systematic approach) and increasing the use of coping skills (an individual approach). Specifically, beliefs that aggression is legitimate or even desirable should be addressed in prevention programs; as such beliefs predict future aggressive behavior and are related to stressful life events (Guerra et al., 1995).

Urban Adolescent Coping

Research on coping within diverse, urban populations is lacking as compared to research on middle-class, mostly European American populations (Compas et al., 2001). It has been established that urban adolescents experience unique stressors, such as neighborhood violence and financial strain, and as such, some researchers have
questioned whether their coping styles differ as a result of their experiences. Several studies have examined this question, and a few of them will be reviewed in this section.

Dempsey (2002) studied 120 African American fifth and sixth graders to determine if negative coping serves as a mediator between violence exposure and psychological symptoms. The results of this study revealed that chronic exposure to violence contributed to the use of negative strategies, which then led to the development of psychological symptoms. In other words, children who used negative coping techniques (e.g. avoiding others, blaming self or others, doing nothing) exacerbated feelings of ineffectiveness and eventually developed psychological difficulties (Dempsey, 2002). Dempsey (2002) also pointed out that while negative coping strategies may be adaptive and useful in the short term, an accrued use of such strategies may ultimately lead to maladaptive outcomes. As such, increased use of negative coping strategies is likely to be related to increased psychological issues.

Diverse, urban adolescents have been found to use a variety of coping mechanisms. One of the most commonly used, according to Rasmussen et al. (2004) is positive reappraisal. Confrontive coping, which involves aggressive tactics to alter a situation, was the least likely to be employed (Rasmussen et al., 2004). Rasmussen et al. (2004) compared the coping strategies of adolescents from low, medium, and high crime neighborhoods and found that neighborhood type did not moderate the rates of use of different strategies. These results suggest that regardless of the number of violent stressors to which young people are exposed, a similar set of coping techniques will be
employed. Additionally, no differences in the frequency of use of coping behavior were found across neighborhoods (Rasmussen et al., 2004).

Interestingly, the results of Rasmussen et al. (2004) study also revealed that when coping strategies were employed in high crime neighborhoods they were actually more effective in increasing perceptions of safety than when they were employed in medium to low crime neighborhoods. Unfortunately, use of coping mechanisms did not reduce exposure to violence in any of the neighborhoods, but rather, it tended to increase perceptions of safety in high crime neighborhoods to levels that were more similar to adolescents in medium to low crime neighborhoods. Rasmussen et al. (2004) also found that in high crime neighborhoods confrontive coping was not associated with increased exposure to violence. When all neighborhoods were analyzed together, however, confrontive coping did lead to higher exposure to violence. Rasmussen et al. (2004) explained these findings by suggesting that for youth living in high crime neighborhoods, confrontive coping strategies may be more useful than counselors and interventionists have traditionally realized, as they are often discouraged as ways for youth to handle stress.

Other research has focused on how urban adolescents cope with poverty, rather than neighborhood violence. Wadsworth and Berger (2002) found that some aspects of coping are rather stable, and in a sense trait-like, whereas others are not as stable, and as such are more state-like. They attributed the stability of coping patterns in their sample to the stability of poverty related stress, such that chronic stressors produced a chronic coping pattern. Wadsworth and Berger (2002) found no main effects of coping on
changes in symptoms over time, and hypothesized that this may be a result of the chronic nature of poverty related stress. They reasoned that it may be difficult for adolescents to compensate for poverty through coping due to its chronic and uncontrollable nature.

Additionally, Wadsworth and Berger (2002) found that involuntary reactivity to poverty-related family stress may interfere with successful primary control coping behavior, which is characterized by a person enhancing their sense of personal control over the environment and his or her reactions (Compas et al., 2001). This is important because Wadsworth and Berger (2002) also found that primary control coping served as a protective buffer against subsequent symptoms, and the magnitude of this effect was greatest for those under the highest amounts of poverty-related family stress. Lastly, Wadsworth and Berger (2002) determined that the correct directionality of the relationship between stress and coping is from coping to stressors, indicating that use of coping skills is not just a measure of well-being but rather a way of buffering psychological health from the effects of stress. This finding provides support for the current data analysis plan, which will analyze coping and subjective well-being in a directional model with coping styles serving as predictors and the SWB variables serving as outcome variables. If coping and SWB were simply ways of measuring the same underlying construct (well-being), the proposed model would be inappropriate.

While it is beyond the scope of this review to address issues of coping in adult populations, one study is particularly relevant as it addressed the relationship between uncontrollable stress and coping in urban, homeless men (Littrell & Beck, 2001). The results from this study indicated that for African American homeless men faced with all
levels of uncontrollable stressors, those who use problem-focused coping display lower levels of distress than those who use emotion-focused coping (Littrell and Beck, 2001). This result is somewhat inconsistent with the adolescent coping research in that it does not appear that problem-focused coping, a form of active coping, results in negative psychological outcomes when utilized to relieve uncontrollable stress. However, when participants were faced with additional uncontrollable stressors, those who employed problem-focused coping techniques exhibited more depressive symptoms (Littrell and Beck, 2001). These results indicate some consistency between urban adult and adolescent coping responses to uncontrollable stress. While adults may experience more success with active coping techniques initially, it appears that such techniques are only helpful with small amounts of uncontrollable stress. In the face of multiple uncontrollable stressors, even adults may suffer from the use of active coping mechanisms (Littrell and Beck, 2001).

As previously mentioned, very few studies have examined the specific stressors that urban adolescents face. Even fewer have examined how the controllability of these stressors is related to coping (Grant et al., 2003). A recent study by Landis et al. (2007) found a significant association between uncontrollable stressors and hopelessness for urban adolescents. Additionally, active coping was found to moderate the relationship between uncontrollable stress and hopelessness for boys, such that the association was stronger for boys who reported using more active coping (Landis et al., 2007). These results are consistent with Clarke’s (2007) findings and Compas et al.’s (2001) review of the coping literature, which found that coping is most effective when it matches stressors.
In other words, attempting to control uncontrollable stressors through active coping techniques may likely be ineffective, and could therefore lead to worse psychological outcomes. When passive or avoidant strategies are employed for coping with uncontrollable stressors, psychological outcomes may be more positive for urban adolescents.
CHAPTER THREE
METHODOLOGY

Participants

The study participants included 147 urban adolescents who attended school in a large Midwestern city. The students represented the following ethnic groups: 54% Latino, 11.6% Asian American, 8.2% Biracial, 6.1% African American, 4.1% Pacific Islander, 3.4% Caucasian, 1.4% Middle Easterner, and 0.7% Native American. Approximately 10% of the students did not report ethnic or racial group membership. The sample was split nearly evenly in terms of gender, with 52% male, 47% female, and 1% not reported. Thirty of the students reported that they were first generation immigrants. Of the Latino students, 23% reported they were born in Mexico, while 4% reported they were born in Ecuador. Of the Asian American students, one reported being born in China. All Pacific Islander students reported being born in the Philippines. Finally, one Middle Eastern student was born in Iraq and the other in Bosnia. A majority of the students reported being at least bilingual (74%) and many also reported speaking only another language besides English at home (41%). According to public state records, the sample of the study approximates that of the school as a whole (67.8% Latino, 11.1% African American, 9% Asian American, 6.6% Caucasian, 5.5% Multiracial, 0% Native American.
American); 86.9% of the students at the school are classified as low income. This information was gathered from a demographic questionnaire (Appendix C).

Procedure

The participants in the study were recruited as part of a school-based outreach program aimed at enhancing psychological health and academic achievement. A total of 180 students were eligible for participation in both the outreach program and research component. Before the program began, parents and/or guardians of all possible participants were given the opportunity to sign a written consent allowing their child to participate in both the outreach and research components of the study. This written consent explained clearly that participation in either component of the program was not required (Appendix A). The participants were also given assents that were worded similarly to the consents given to their parents and/or guardians (Appendix B). While no students opted out through the consent or assent process, some were not present on the day of the data collection or did not fill out the questionnaires that were given to them.

The participants responded to the survey before they participated in the outreach program. In order to control for varying levels of reading ability, the surveys were read aloud by counseling psychology graduate students to the participating students. In the event that a student had a question related to the survey material, additional graduate students were available for one-on-one assistance. Spanish versions of the survey were made available to be read aloud by Spanish speaking research team members for those students who wished to read and respond to the survey in Spanish. No students requested a Spanish version of the questionnaire.
Instruments

*Positive and Negative Affect Schedule* (PANAS; Watson, Clark, & Tellegen, 1988).

Positive and negative affect are considered highly distinctive dimensions rather than opposite constructs of the same spectrum (Lucas, Diener, & Suh, 1996). According to Watson et al. (1998), positive affect (PA) refers to the extent to which a person feels alert, active, and enthusiastic. Negative affect (NA) is characterized by subjective distress that is related to a variety of negative mood states including anger, guilt, fear, contempt, disgust, and nervousness. An absence of positive affect does not necessarily indicate that one is experiencing high levels of negative affect. Conversely, an absence of negative affect does not necessarily indicate that one is experiencing high levels of positive affect.

The PANAS is a 20-item measure comprised of a 10-item scale for PA and a 10-item scale for NA (Appendix D). The descriptors included on the PA scale are: *attentive, interested, alert, excited, enthusiastic, inspired, proud, strong,* and *active.* For the NA scale, the 10 descriptors are grouped into 5 triads. Those descriptors and their triads are: *distressed, upset* (distressed); *hostile, irritable* (angry); *scared, afraid* (fearful); *ashamed,* *guilty* (guilty); and *nervous, jittery* (jittery). For this study, participants were asked to rate, in general, how often they felt each of the emotions described by the items. Participants responded to each item using a 5-point Likert scale with the following ratings: 1 = never; 2 = a little; 3 = sometimes; 4 = a lot; 5 = all the time. The language of the responses was modified slightly in order to be made cognitively age-appropriate for
younger adolescent populations. The wording from the original PANAS scale is as follows: 1 = very slightly or not at all; 2 = a little; 3 = moderately, 4 = quite a bit; 5 = extremely. This change should not affect the appropriateness of the measure, as rating scale changes have not been found to affect the reliability and precision of the measure (Watson et al., 1988).

According to Watson et al. (1988), the internal consistency for both scales when assessing PA and NA in general, as opposed to a specific time (i.e. past few days), has been shown to be high (for PA $\alpha = .88$; for NA $\alpha = .87$). The test developers also reported adequate test-retest reliability for each scale when assessing general PA and NA (for PA $\alpha = .68$; for NA $\alpha = .71$). Additionally, appropriate convergent and discriminate correlations were established for both scales, as well as item validity. Lastly, the PANAS has been found to demonstrate good external validity (Watson et al., 1988). For the current sample, the reliability estimate of the scores on the overall measure was .85. Additionally, for the scores on the positive affect scale the reliability estimate was .84, whereas for the negative affect scale it was .90.

Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985).

Life satisfaction is a cognitive process of globally assessing one’s quality of life (Shin and Johnson, 1978). This assessment process is characterized by comparing one’s circumstances with what one thinks to be a comparable standard, with an emphasis on an individual’s subjective experience of life satisfaction, rather than a researcher’s opinion of what constitutes satisfaction (Diener et al., 1985). The SWLS is a 5-item measure of
general satisfaction with quality of life. Scores range from 5 to 35, with higher scores indicating greater satisfaction (Appendix E).

Diener et al. (1985) found that the SWLS correlated with summed domain satisfaction scores well enough to conclude that the two measures share common variance but are indeed separate constructs. Additionally, the SWLS correlated adequately with interviewer estimates of life satisfaction. Lucas, Diener and Suh (1996) reported that the SWLS has demonstrated discriminate validity, in that life satisfaction can “be discriminated from the affective components of SWB and from the conceptually similar constructs of optimism and self-esteem” (p. 625). The reliability of the scores on this scale for the current sample was estimated at .78.

Brief COPE (Carver, 1997).

The Brief COPE was adapted from the COPE Inventory as a way to assess problem focused coping responses, as well as responses “directed to aspects of the situation other than the stressors per se” (Carver, 1997). Additionally, the COPE inventory addresses dysfunctional vs. adaptive coping. Because patients often become impatient with this 60 item inventory, Carver (1997) created the Brief COPE, which is comprised of 14 scales with two items each. The scales included are: active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. One drawback of the scales on the Brief COPE was a lack of attention to coping through aggressive behaviors. As indicated in the literature review, aggressive behavior often increases in the face of multiple stressors (Carr Paxton
et al., 2006; Self-Brown et al., 2004). As such, two items addressing aggressive coping behavior were added to the Brief COPE inventory for the purposes of this study. The two items are as follows: “I hurt others or take it out on others” and “I throw or hit something” (Appendix F).

Research on the internal reliability estimates for each scale of the Brief COPE have resulted in adequate results, as all estimates exceed .50, which according to the authors is the minimum acceptable level. All of the internal reliability estimates exceeded .60 except for venting, denial, and acceptance (Carver, 1997). A factor analysis revealed that four of the a priori scales formed distinct factors: substance use, religion, humor, and behavioral disengagement. A single factor was formed by the combination of use of emotional support and use of instrumental support. Active coping, planning, and positive reframing loaded onto a single factor. Although this structure was not exactly the same as the structure for the extended version, and changed slightly upon further examination, Carver (1997) concluded that the factor structure was “remarkably similar to that reported for the full inventory.”

The aforementioned factors outlined by Carver (1997) do not capture the distinction between active and adaptive stress that will be necessary for this study, as that distinction is of importance in relation to uncontrollable stress. The investigator hypothesized that in the presence of high levels of uncontrollable stress, active coping will be related to more negative outcomes for the SWB variables, whereas adaptive coping will predict better outcomes. In order to capture the difference between active coping mechanisms and adaptive coping mechanisms, the items on the Brief COPE were
collapsed by the author into three broader categories of coping (active, adaptive, and maladaptive) in order to examine more expansive coping-related themes that relate directly to the research questions.

The researcher created the coping style categories based on a review of the coping literature, with a particular focus on Clarke’s (2006) review of coping styles. Initially, four coping styles were identified (active, adaptive, avoidant, and maladaptive) and an agreement test was conducted with two qualified psychology graduate students. Full agreement was not achieved on 9 on the 30 items, although on many of those items 2 of the researchers did agree. After discussion and analysis, it was decided to collapse the avoidant and maladaptive categories into one general category labeled *maladaptive coping*. The author and the graduate students agreed with the placement of all of the items on the second list, and as a result it became the final version to be used for analysis.

The first of the three general areas was identified as *active coping* (10 items), and was made up of items with content characterized by direct problem solving, seeking understanding, cognitive decision-making, cognitive restructuring, and purposeful and constructive attempts to actively manage circumstances surrounding stressors. These items were originally from the *active coping, using emotional support, using instrumental support, positive reframing, and planning* scales of the Brief COPE measure. The second scale created by the author from the original measure was labeled *adaptive coping* (10 items), as the content of its items was characterized by acceptance seeking behavior, distraction from or ignoring of stressors in ways that are not harmful to self or others, self-encouragement, venting, and seeking understanding through acceptance. These
items were taken from the self-distraction, venting, humor, acceptance, and religion scales of the original Brief COPE measure. The last adapted scale was labeled maladaptive coping and was characterized by items that described behavioral and/or emotional disengagement from the stressor, an attempt to distance oneself from the stressor so as to distance oneself from the emotions related to the stressor, denial of the stressor, or behavior that is specifically anti-social, violent, or excessively self-critical. These items were originally found in the denial, substance use, behavioral disengagement, and self-blame scales. Two items representing violent coping behaviors were added by the original researcher in order to be more applicable to the population of study. The estimated reliability of the full Brief Cope scores for the current sample was (.88). When estimated by coping style, the estimated reliabilities of the scores were as follows: active coping (.85), adaptive coping (.76), and maladaptive coping (.76).

The Life Events and Coping Inventory (LECI; Dise-Lewis, 1988).

According to Dise-Lewis (1988), the LECI is a measure “of life stress appropriate for children with the intention of describing how normal children experience and cope with change events in their lives” (p. 485). It includes both significant life events and daily hassles that may cause stress. Items were generated by child subjects, and as such the language of this measure was appropriate for the sample studied. This also provides evidence for the construct and content validity of scores on the measure (Dise-Lewis, 1988). For this study, participants responded to the items on the LECI by answering whether they had experienced the stressors within the past year. If a particular stressor
had been experienced, they rated how stressful they felt the event was. Responses
included: *not at all, somewhat, pretty,* and *extremely* (Appendix G).

A principal components factor analysis revealed one primary factor accounting
for 40% of the items and 76% of the variance, indicating no need for subscales. As such,
life events indices were computed from total scores (Dise-Lewis, 1988). Reliability
coefficients for individual items ranged from .07 to .56, with an average of .25. The
overall Pearson correlation coefficient for the life events ratings was .97. The strong
correlations between the LECI and measures of anxiety, depression, psychosomatic
symptoms, and behavior problems indicate that the scores of the measure demonstrate
adequate construct validity (Dise-Lewis, 1988).

Although a coping questionnaire is also part of the LECI, it was not used for this
study because of its length. The Brief COPE is a significantly more parsimonious scale,
and therefore more useful for this study. The Life Events portion of the LECI was also
shortened for this study, as the original list is quite long and the measure was part of an
already extensive and lengthy battery. Events that were deemed by the author and her
research advisor to be more relevant to the sample studied were included, for a total of 20
items.

Additionally, the scale was further split to differentiate between items that
represented controllable versus uncontrollable stressors. The items were analyzed for
uncontrollable content using Clarke (2006) and Landis et al.’s (2007) definitions of the
controllability of stressors outlined in the Chapters 1 and 2 of this research proposal.
Examples of controllable stressors included items that adolescents could theoretically
exert some causal influence over, such as: “suspended from school”, and “took drugs.”
Examples of uncontrollable stressors included items over which adolescents would theoretically be unable to exert any control, such as: “family had money problems”, “parent moved out of home”, and “family member was hurt.” The grouping of items into either controllable or uncontrollable categories was subsequently completed by two qualified counseling psychology graduate students in order to obtain agreement data. After the agreement analysis, one item (“you were physically hurt”) was removed from the analysis because both raters and the author agreed that it did not fit adequately into either category. After removing the item, an agreement rating of 90% was achieved among both raters and the author. The reliability estimate for the scores on the uncontrollable stressor scale was .78, which was adequate. The scores on the controllable stressor scale, however, only reached a reliability estimate of .68, calling into question the utility of the measure for further analysis.

**Procedure**

Preliminary analysis included Pearson Product Moment correlations to determine if significant relationships existed among the predictor and outcome variables. Additionally, the Chronbach’s alpha reliability coefficient was used to examine the internal consistency of the scores on the scales used in the measure. Scales with alpha levels below .70 were considered inadequate (Crocker & Algina, 1986; Walsh & Betz, 2001). Lastly, a one-way ANOVA was performed to determine if any gender differences existed between the variables of interest.
The first question designed by the investigator simply addressed the prevalence of uncontrollable stressors in the lives of this particular urban adolescent sample. Specifically, did this sample report higher percentages of uncontrollable stress than controllable stress? This question was analyzed by calculating percentages of “yes” responses to the items for both uncontrollable and controllable stress and then comparing these rates using a paired-samples t-test.

There were two parts to the second research question. First, was the number of uncontrollable stressors experienced by urban adolescents related to the SWB variables of positive affect, negative affect, and life satisfaction? Second, was the number of controllable stressors experienced by urban adolescents related to the aforementioned SWB variables? In order to examine whether significant relationships existed between SWB and uncontrollable and controllable stress, a multiple linear regression analyses was performed with the predictor variables of uncontrollable stress and controllable stress and the outcome variables of life satisfaction, positive affect, and negative affect.

The third question examined whether any of the coping styles utilized in this study (active, adaptive, and maladaptive) were related to the SWB variables of positive affect, negative affect, and life satisfaction? Multiple linear regression analysis was performed in order to determine the relationships among the predictor variables (active coping, adaptive coping, and maladaptive coping) and the outcome variables (positive affect, negative affect, and life satisfaction). In order to conserve statistical power, the multiple regression analyses from research questions 1 and 2 were combined. The final models regressed all of the predictor variables (uncontrollable stress, controllable stress,
active coping, adaptive, and maladaptive coping) onto the three dependent, or outcome, variables (life satisfaction, positive affect, and negative affect). Gender was controlled for in the equations where negative affect was the dependent variable, as gender was significantly related to negative affect.

The last question proposed by the researcher addressed the moderator hypothesis. Specifically, did the coping mechanisms employed by adolescents moderate the relationship between uncontrollable stressors and SWB? A moderator analysis utilizing Baron and Kenny’s (1986) procedure was conducted to determine whether any of the three coping styles moderated the relationship between uncontrollable stress and SWB. Because the initial regression analysis established a link between uncontrollable stress and one or more of the SWB variables, multiple regression equations were used to determine whether uncontrollable stressors (independent variable) and the coping strategies (hypothesized moderator variable) accounted for a significant portion of the variance while controlling for the individual effects of the independent and moderator variables. The control variable of gender was entered into the first level of the regression equations based on the preliminary analysis using a one-way ANOVA (Baron and Kenny, 1986; Landis et al., 2007).

There is virtually no prior research that examines the relationship between uncontrollable stressors and SWB. A power analysis based on Cohen (1992) indicated that based on the number of independent variables in the sample and the proposed multiple regression analysis, in order to yield a power of .80, a total of 97 participants is needed to detect a medium effect size with an alpha of .01. The sample of 147
participants, therefore, was likely enough to detect a medium effect size even with a stringent alpha level.
CHAPTER FOUR

RESULTS

The purpose of this study was to examine the effects of controllable and uncontrollable stressors, as well as coping styles, on the subjective well-being of urban adolescents. Additionally, the researcher was interested in whether certain coping styles may serve as moderators of the relationship between uncontrollable stress and subjective well-being. The formal research questions are listed below:

1) For this urban adolescent sample, did participants report experiencing a higher percentage of uncontrollable stressors than controllable stressors?

2) Was the number of uncontrollable stressors experienced by urban adolescents related to the SWB variables of positive affect, negative affect, and life satisfaction? (b) Likewise, was the number of controllable stressors experienced by urban adolescents related to the SWB variables?

3) Were any of the three coping styles (active, adaptive, and maladaptive) related to the SWB variables of positive affect, negative affect, and life satisfaction?

4) Did any the coping styles (active, adaptive, and maladaptive) moderate the relationship between uncontrollable stress and SWB?

The current chapter presents the results of statistical analyses performed by the researcher to address the aforementioned research questions. After ensuring that the
scores were correctly entered into SPSS Version 16.0, descriptive statistics for all of the involved variables were computed. The bivariate relationships among all of the relevant variables were examined through a correlational analysis. Gender differences on the dependent variables were examined through a one-way ANOVA. Gender differences as they related to controllable and uncontrollable stress were also computed using a one-way ANOVA. Multiple regression analyses were conducted to determine directional relationships among the variables.

**Descriptive Statistics**

The means, standard deviations, minimum values, and maximum values for all of the measures utilized in the study for both independent and dependent variables were calculated in order to determine the appropriateness of the measures for further analysis. These descriptive statistics can be found in Table 1. The reliability coefficients of the positive affect (.84) and negative affect (.90) scores were adequate. Likewise, the reliability coefficients of the uncontrollable stress (.78), active coping (.85), adaptive coping (.76), and maladaptive coping (.76) scores were also adequate. The scores for the controllable stress (.68) were, however, not adequately reliable. As such, results pertaining to this measure should be interpreted with caution.
Table 1: Descriptive Statistics for Positive Affect, Negative Affect, Life Satisfaction, Uncontrollable Stress, Controllable Stress, Active Coping, Adaptive Coping, and Maladaptive Coping

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Affect</td>
<td>128</td>
<td>15</td>
<td>47</td>
<td>31.83</td>
<td>6.85</td>
<td>.84</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>137</td>
<td>10</td>
<td>49</td>
<td>25.25</td>
<td>7.1</td>
<td>.90</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>138</td>
<td>11</td>
<td>36</td>
<td>21.67</td>
<td>5.14</td>
<td>.78</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>131</td>
<td>0</td>
<td>12</td>
<td>2.88</td>
<td>2.62</td>
<td>.78</td>
</tr>
<tr>
<td>Controllable Stress</td>
<td>131</td>
<td>0</td>
<td>7</td>
<td>1.42</td>
<td>1.63</td>
<td>.68</td>
</tr>
<tr>
<td>Active Coping</td>
<td>127</td>
<td>10</td>
<td>36</td>
<td>22.73</td>
<td>5.92</td>
<td>.85</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>117</td>
<td>10</td>
<td>33</td>
<td>21.55</td>
<td>5.17</td>
<td>.76</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>126</td>
<td>4</td>
<td>16</td>
<td>7.33</td>
<td>2.75</td>
<td>.76</td>
</tr>
</tbody>
</table>

Bivariate Relationships

Table 2 shows the correlations between the measures of interest (positive affect, negative affect, uncontrollable stress, controllable stress, active coping, adaptive coping, and maladaptive coping). In this sample, life satisfaction was significantly positively correlated with positive affect \( (r = .544, p < .01) \), as well as active coping \( (r = .484, p < .01) \) and adaptive coping \( (r = .416, p < .01) \). Positive affect was also positively correlated with active coping \( (r = .395, p < .01) \) and adaptive coping \( (r = .426, p < .01) \). Negative affect was found to be positively correlated with a number of variables including uncontrollable stress \( (r = .312, p < .01) \), active coping \( (r = .195, p < .05) \), adaptive coping \( (r = .349, p < .05) \), and maladaptive coping \( (r = .427, p < .01) \). Uncontrollable stress was also related to all of the coping styles with coefficients ranging from \( r = .172 (p < .05) \) for active coping, \( r = .210 (p < .05) \) for adaptive coping, and \( r = .336 (p < .01) \) for
maladaptive coping. Controllable stress, however, was only significantly related to maladaptive coping ($r = .309, p < .01$).

There were also significant correlations among the coping styles. Active coping was highly positively related to adaptive coping at $r = .668 (p < .01)$. Adaptive and maladaptive coping were positively correlated at $r = .443 (p < .01)$. It should also be noted that controllable and uncontrollable stress were significantly positively correlated at $r = .682 (p < .01)$. This result is important as it may indicate the presence of multicollinearity among the controllable and uncontrollable stressor scales and as such was accounted for in the subsequent analyses.

Table 2: Bivariate Correlations Among Life Satisfacton, Positive Affect, Negative Affect, Uncontrollable Stress, Controllable Stress, Active Coping, Adaptive Coping, and Maladaptive Coping

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Life Satisfaction</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Positive Affect</td>
<td>.544**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Negative Affect</td>
<td>-.053</td>
<td>.142</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Uncontrollable Stress</td>
<td>-.046</td>
<td>-.034</td>
<td>.312**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Controllable Stress</td>
<td>-.033</td>
<td>-.083</td>
<td>.132</td>
<td>.682**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Active Coping</td>
<td>.484**</td>
<td>.395**</td>
<td>.195*</td>
<td>.172*</td>
<td>.164</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Adaptive Coping</td>
<td>.416**</td>
<td>.426**</td>
<td>.349*</td>
<td>.210*</td>
<td>.086</td>
<td>.668**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Maladaptive Coping</td>
<td>-.163</td>
<td>.029</td>
<td>.427**</td>
<td>.336**</td>
<td>.309**</td>
<td>.140</td>
<td>.443**</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01
Preliminary Analysis

In order to determine whether gender was significantly related to the outcome variables, and as a result should be controlled for during multiple regression analyses, one-way ANOVAs were performed employing all three SWB variables. The results of the ANOVA analyses revealed that girls had significantly higher scores on negative affect than boys (F (1,134) = 28, p < .01). For positive affect and life satisfaction, no gender differences were present. As a result, the effects of gender were controlled for during the regressions for which negative affect was the dependent variable. A one-way ANOVA was also conducted to determine if gender affected the number of uncontrollable and controllable stressors reported by adolescents. The ANOVA revealed no gender differences on either stress variable.

Research Question 1

Of interest to the researcher was whether students in this urban sample reported experiencing, on average, more uncontrollable stressors than controllable stressors. In order to answer this question, the percentage of “yes” responses was calculated for each stress variable (uncontrollable and controllable) and compared using a paired-samples t-test. Percentages, rather than item counts, were utilized because the uncontrollable and controllable stressors scales did not contain an equal amount of items. As a result, comparing total scores would not provide useful information. Results revealed a significant difference between the percentages of uncontrollable and controllable stressors experienced by the students such that the students endorsed significantly higher
percentages of the uncontrollable stress items than controllable stress items \( (t = 2.284, p < .05) \).

As outlined in the descriptive statistics section, the internal consistency reliability coefficient for the scores on the controllable stress scale was below .70 \( (\alpha = .68) \); therefore these results should be interpreted with caution. Additionally, comparing the percentages of items reported on each stressor scale does not guarantee one type of stress is actually experienced more than the other, as it would be impossible to ensure the items were comprehensive of all stressors experienced by urban youth. For these reasons, the results of the paired-samples t-test should be only considered as inconclusive evidence of the possibility that urban youth in this sample tend to experience higher levels of uncontrollable stress than controllable stress.

*Research Questions 2 and 3*

The second question posed in Chapter 1 was comprised of two sub-questions. Question 2(a) reads: was the number of uncontrollable stressors experienced by urban adolescents related to the SWB variables of positive affect, negative affect, and life satisfaction? Question 2(b) reads: was the number of controllable stressors experienced by urban adolescents related to the SWB variables? The third major research question posed in Chapter 1 was as follows: were any of the three coping styles (active, adaptive, and maladaptive) related to the SWB variables of positive affect, negative affect, and life satisfaction?

In order to answer questions 2(a), 2(b), and 3, multiple linear regression analyses were conducted to determine the best linear combinations of uncontrollable stress, active
coping, adaptive coping, and maladaptive coping. The predictor variables involved in both questions were entered into the regression analyses so that the unique effects they contribute to the outcome variables could be examined concurrently, therefore preventing unnecessary loss of statistical power. Six separate multiple regression analyses were conducted to determine the relationship between the aforementioned predictor variables and each of the three subjective well-being variables (positive affect, negative affect, and life satisfaction).

Multiple regression analysis eliminates any overlap between variables; as result highly correlated variables that are included in the analysis can be misleading (Leech, Barrett, and Morgan, 2005). The test for the presence of multicollinearity was conducted using the procedure recommended by Leech et al. (2005) which proposed that tolerance levels should be greater than 1-R² to ensure that multicollinearity is not present. As such, analysis of tolerance levels was performed on all regression equations. The controllable stress predictor variable was removed from all of the regression analyses due to the presence of multicollinearity between the controllable and uncontrollable stress variables. Because the bivariate analysis revealed that the two variables were highly related to each other (r = .682, p = .01), collinearity statistics from the regression results were used to confirm the presence of multicollinearity between the uncontrollable and controllable stress variables. In this case, it was most congruent with the research questions to remove the controllable stress variable, especially when considering the low reliability estimate of its scores (α = .68). Collapsing the variables together would not allow the researcher to specifically examine uncontrollable stress, and as this concept was central
to the research questions, it was deemed an inappropriate remedy for multicollinearity in this study. As a result, question 2(b) could not be answered through the proposed analytic methods.

Leech et al.’s (2005) method also revealed that the active and adaptive coping variables, which were highly correlated ($r = .668, p < .01$), were also affected by multicollinearity. Because each variable was important to the research question and demonstrated adequate reliability, they were both employed in the regression analyses. Rather than conducting one equation for each dependent variable using both variables, two equations were performed for each dependent variable with active coping included in the first equation and adaptive coping included in the second equation. As a result, six regression equations were conducted rather than three. The simultaneous enter method was employed for the multiple regressions for life satisfaction and positive affect, as no gender differences were revealed in the ANOVA results. In order to control for the effects of gender on negative affect, the hierarchical multiple linear regression method was utilized for the negative affect regression analysis.

**Life Satisfaction**

The first two simultaneous regression analyses examined the predictors of life satisfaction. The first full model, which included uncontrollable stress and active and maladaptive coping as predictors, was statistically significant and accountable for 33% of the variance in life satisfaction ($F (3,98) = 11.176, p < .01$). Of the three possible predictors, only active and maladaptive coping were significant. The beta weights, presented in Table 3, of all three coping styles were quite similar in size, indicating
approximately equal importance in the overall model. The direction of these weights suggests that active coping was positively related to life satisfaction. Maladaptive coping, as expected, appeared to be inversely related to life satisfaction.

The second full model, which included uncontrollable stress and adaptive and maladaptive coping as predictors, was statistically significant and accountable for approximately 30% of the variance in life satisfaction (F (3,91) = 12.632, p < .01). In this model, adaptive and maladaptive coping were found to be significant predictors of life satisfaction. Higher levels of adaptive coping were predictive of higher levels of life satisfaction; inversely, higher levels of maladaptive coping were predictive of lower levels of life satisfaction. In summary, higher levels of active and adaptive coping and lower levels of maladaptive coping were significantly predictive of more satisfaction with life. Results from the regression analyses employing life satisfaction as the outcome variable are presented in Tables 3 and 4.

Table 3: *Multiple Regression Values From Life Satisfaction for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrollable Stress</td>
<td>.012</td>
<td>.006</td>
<td>.067</td>
<td>.474</td>
</tr>
<tr>
<td>Active Coping</td>
<td>.502</td>
<td>.559</td>
<td>6.633</td>
<td>.001</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>-.275</td>
<td>-.238</td>
<td>-2.682</td>
<td>.005</td>
</tr>
</tbody>
</table>

Dependent Variable: Life Satisfaction

Total R-squared: .327
Table 4: Multiple Regression Values From Life Satisfaction for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrollable Stress</td>
<td>.010</td>
<td>.005</td>
<td>.056</td>
<td>.478</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>.550</td>
<td>.593</td>
<td>6.009</td>
<td>.001</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>-.438</td>
<td>-.380</td>
<td>-3.741</td>
<td>.001</td>
</tr>
</tbody>
</table>

**Positive Affect**

The second two simultaneous regression analyses examined the predictors of positive affect. The first model, which included uncontrollable stress and active and maladaptive coping as predictors, was significant at the $p < .01$ level. The full model explained 16% of the variance in positive affect ($F(3, 93) = 5.937, p < .01$). Of the three possible predictors, only active coping was statistically significant ($p < .01$). The beta weight associated with active coping indicated that it was positively linearly related to positive affect.

The second model, which included uncontrollable stress and adaptive and maladaptive coping as predictors, was statistically significant and explained 23% of the variance in positive affect ($F(3, 86) = 8.350, p < .01$). In this model, both adaptive ($p < .01$) and maladaptive coping ($p < .05$) were significant predictors of positive affect. The relationship between adaptive coping and positive affect was direct, whereas the relationship between maladaptive coping and positive affect was inverse in nature. In summary, higher levels of active and adaptive coping and lower levels of maladaptive
coping were predictive of higher levels of positive affect. Tables 5 and 6 outline the results from the regression analyses employing positive affect as the outcome variable.

Table 5: *Multiple Regression Values From Positive Affect for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrollable Stress</td>
<td>.044</td>
<td>.018</td>
<td>.180</td>
<td>.429</td>
</tr>
<tr>
<td>Active Coping</td>
<td>.451</td>
<td>.400</td>
<td>4.158</td>
<td>.001</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>-.127</td>
<td>-.089</td>
<td>-.882</td>
<td>.190</td>
</tr>
</tbody>
</table>

Table 6: *Multiple Regression Values From Positive Affect for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrollable Stress</td>
<td>-.047</td>
<td>-.019</td>
<td>-.188</td>
<td>.426</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>.651</td>
<td>.522</td>
<td>4.999</td>
<td>.001</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>-.324</td>
<td>-.217</td>
<td>-2.029</td>
<td>.023</td>
</tr>
</tbody>
</table>

**Negative Affect**

The third set of regression analyses utilized the hierarchical multiple linear regression method in order to control for the effects of gender on negative affect, as a previous one-way ANOVA analysis revealed that gender was significantly related to negative affect ($F (1, 134) = 28.0$ at $p = .01$). The first full model, including gender, uncontrollable stress, active coping, and maladaptive coping, was statistically significant at $p = .01$, and explained 32% of the variance in negative affect ($F (4,96) = 11.176$ at $p = .01$). Both uncontrollable stress ($p = .05$) and maladaptive coping ($p = .01$) were
significantly predictive of negative affect. The beta values associated with uncontrollable stress and maladaptive coping indicated that both were positively related to negative affect.

The second full model, which included gender, uncontrollable stress, adaptive coping, and maladaptive coping, was statistically significant and explained 31% of the variance in negative affect (F (4, 89) = 9.889 at p = .01). In this equation, uncontrollable stress remained predictive of negative emotion (p = .05). Adaptive and maladaptive coping were significantly and directly related to negative affect (p = .05) such that as their levels increased, levels of negative affect increased. In summary, higher levels of uncontrollable stress, adaptive coping, and maladaptive coping were predictive of higher levels of negative affect. Results from the regression analyses employing negative affect as the outcome variable are presented in Tables 7 and 8.

Table 7: Multiple Regression Values From Negative Affect for Entire Sample Using Uncontrollable Stress, Active Coping, and Maladaptive Coping as Predictor Variables

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>3.626</td>
<td>.246</td>
<td>2.643</td>
<td>.005</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>.549</td>
<td>.194</td>
<td>2.160</td>
<td>.017</td>
</tr>
<tr>
<td>Active Coping</td>
<td>.168</td>
<td>.127</td>
<td>1.479</td>
<td>.071</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>.465</td>
<td>.281</td>
<td>2.867</td>
<td>.003</td>
</tr>
</tbody>
</table>

Total R-squared: .318
Table 8: Multiple Regression Values From Negative Affect for Entire Sample Using Uncontrollable Stress, Adaptive Coping, and Maladaptive Coping as Predictor Variables

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>3.532</td>
<td>.242</td>
<td>2.483</td>
<td>.008</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>.467</td>
<td>.163</td>
<td>1.769</td>
<td>.040</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>.273</td>
<td>.195</td>
<td>1.994</td>
<td>.025</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>.364</td>
<td>.215</td>
<td>1.979</td>
<td>.026</td>
</tr>
</tbody>
</table>

Dependent Variable: Negative Affect
Total R-squared: .308

Research Question 4

The fourth and final research question addressed the hypothesis that certain coping styles might serve as moderators of the relationship between uncontrollable stress and the subjective well-being variables. Of all the SWB variables, only negative affect was significantly predicted by uncontrollable stress (p = .05). As such, only negative affect was included in the moderation analysis. The tests of moderation followed Baron and Kenny’s (1996) procedure and utilized hierarchical multiple linear regression analysis. A moderator variable is one that significantly changes the relationship between a predictor variable and an outcome variable. For each potential moderator (i.e., active coping, adaptive coping, and maladaptive coping), a hierarchical regression equation was computed wherein the potential moderator variable (e.g., active), then uncontrollable stress, and then the interaction term (the test of moderation) were regressed onto negative affect. Table 9 outlines the data obtained from the moderator analyses.
Table 9: Multiple Regression Values Using Active Coping, Adaptive Coping, and Maladaptive Coping as Moderator Variables for the Relationship Between Uncontrollable Stress and Negative Affect

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>4.495</td>
<td>.313</td>
<td>3.859</td>
<td>.000</td>
</tr>
<tr>
<td>Active Coping</td>
<td>.538</td>
<td>.419</td>
<td>3.541</td>
<td>.001</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>3.349</td>
<td>1.186</td>
<td>3.802</td>
<td>.000</td>
</tr>
<tr>
<td>Uncontrollable Stress X Active Coping</td>
<td>-.110</td>
<td>-.1009</td>
<td>-3.010</td>
<td>.003</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>4.142</td>
<td>.291</td>
<td>3.346</td>
<td>.001</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>.433</td>
<td>.314</td>
<td>2.575</td>
<td>.011</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>1.108</td>
<td>.389</td>
<td>1.056</td>
<td>.294</td>
</tr>
<tr>
<td>Uncontrollable Stress X Adaptive Coping</td>
<td>-.022</td>
<td>-.190</td>
<td>-.485</td>
<td>.629</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>3.271</td>
<td>.224</td>
<td>2.413</td>
<td>.018</td>
</tr>
<tr>
<td>Maladaptive Coping</td>
<td>.684</td>
<td>.415</td>
<td>3.042</td>
<td>.003</td>
</tr>
<tr>
<td>Uncontrollable Stress</td>
<td>1.570</td>
<td>.556</td>
<td>1.787</td>
<td>.077</td>
</tr>
<tr>
<td>Uncontrollable Stress X Maladaptive Coping</td>
<td>-.053</td>
<td>-.414</td>
<td>-1.181</td>
<td>.240</td>
</tr>
</tbody>
</table>
The first moderator analysis equation employed active coping as the potential moderator variable. The final model from this equation explained 31% of the variance and was statistically significant (F (4, 108) = 12.317). In this equation, every variable entered was statistically significant at the p < .01 level. The variables of gender, active coping, and uncontrollable stress were all positively related to negative affect. The significant interaction of uncontrollable stress and active coping provides evidence for the role of active coping as a moderator of the relationship between uncontrollable stress and negative affect.

In order to understand how the moderator contributed to the relationship between uncontrollable stress and negative affect, the active coping variable was divided into two groups using a median-split procedure. The group with scores above the median level for active coping was labeled high active coping. The group with scores below the median level for active coping was labeled low active coping. A scatter plot was then created to map the relationship between uncontrollable stress and negative affect for both levels of the active coping variable so that comparisons could be made regarding the direction of the relationship between uncontrollable stress and negative coping. This scatter plot, which is represented in Figure 1, demonstrated that at lower levels of uncontrollable stress, members of the high active coping group possessed higher levels of negative affect. Conversely, at higher levels of uncontrollable stress, members of the low active coping group possessed higher levels of negative affect. The following two multiple regression equations revealed that neither adaptive nor maladaptive coping styles serve as
moderators of the relationship between uncontrollable stress and negative affect. Data from those equations can be found in Tables 9.

**Figure 1: Graph of Relationship Between Negative Affect and Uncontrollable Stress When Sample is Split by High Active Coping and Low Active Coping Group**

![Graph of Relationship Between Negative Affect and Uncontrollable Stress When Sample is Split by High Active Coping and Low Active Coping Group]

**Post-Hoc Analysis**

In order to rule out the possibility that members of the high active coping group experienced significantly different levels of uncontrollable stress than members of the low active coping group, a t-test was performed comparing the number of uncontrollable stressors experienced by each group. Results of the t-test revealed no differences in the number of uncontrollable stressors experienced by the high active coping and low active coping groups ($t = 1.85, p > .05$). This finding allowed the researcher to rule out the possibility that the results of the moderator analysis could be better explained by group differences in the number of uncontrollable stressors experienced.
CHAPTER FIVE

DISCUSSION

Summary of Findings

The purpose of this study was to examine the effects of controllable and uncontrollable stressors, as well as coping styles, on the subjective well-being levels of urban adolescent youth. The researcher was also interested in whether any of the coping styles serve as moderators of the relationship between uncontrollable stress and subjective well-being.

Descriptive Statistics

Relevant descriptive statistics revealed adequate internal consistency for the scores of each of the measures with the exception of the controllable stress scale. Gender differences were found for negative affect, with girls experiencing higher levels of negative affect than boys. This finding is consistent with previous literature, as females are often found to experience higher levels of negative affect and depression than males (Fujita, Diener & Sandvik, 1991; Lightsey, 1996) and this difference has also been shown to exist for adolescents (Mazzaferro et al., 2006; Schichor & Bernstein, 1994; Vera et al., 2008). While it may be true that girls experience more negative affect than boys, it may also be that girls are more willing to report these experiences. Alternatively, it is possible that girls experience both positive and negative emotions more intensely than men.
(Lightsey, 1996). In other words, although men and women face the same emotional stimuli, women may respond to the stimuli with more emotional intensity, a concept known as affect intensity (Diener, Larsen, Levine & Emmons, 1985).

**Bivariate Relationships**

Uncontrollable stress was found only to be related to negative affect, and not positive affect or life satisfaction. This finding is consistent with literature that has found uncontrollable stress to be linked to psychopathology, as negative affect has also been shown to be predictive of psychopathology and depressive symptomatology (Curry & Youngblade, 2006). Similarly, negative affect has been shown to be inversely related to mastery and optimism (Ben-Zur, 2003). Lastly, associations have been demonstrated between negative affect self-efficacy (one’s perceived self-efficacy to regulate negative affect) and excelling academically, resisting peer pressure, becoming more empathetic, and reducing depression (Bandura et al., 2003). These abilities are important as they can aid adolescents in avoiding delinquent behavior (Bandura et al., 2003).

Also of interest, controllable stress was not related to any of the subjective well-being variables, although the internal reliability estimate for the controllable stressors scale was slightly low (α = .68). This result lends tentative support to the investigator’s hypothesis that controllable stressors have a weaker effect on well-being than uncontrollable stressors. Lastly, as is often found within the literature, life satisfaction and positive affect were highly correlated. While this is common, subjective well-being research has consistently demonstrated these to be distinct and separate constructs (Lent, 2004).
Several correlations were found among the coping styles. Active coping was positively related to life satisfaction, positive affect, negative affect, uncontrollable stress, and active coping. Adaptive coping was positively related to life satisfaction, positive affect, negative affect, uncontrollable stress, active coping, and maladaptive coping. It is interesting that the two forms of positive coping were related positively to negative affect. This lends some preliminary evidence in support of the hypothesis that coping positively in the face of uncontrollable stressors could lead to increased negative affect. Lastly, maladaptive coping was positively related to negative affect, uncontrollable stress, controllable stress, and adaptive coping.

These results provide insight into the similarity of relationships shared especially by active and adaptive coping, but also by adaptive and maladaptive coping. Active coping was related to adaptive coping, but not maladaptive coping. Maladaptive coping was only related to adaptive coping, but not active coping. While this finding is somewhat counterintuitive, it is possible that these coping dimensions could be placed on a continuum, with adaptive coping located in the center of active and maladaptive coping. As such, overlap may be more likely to exist between active and adaptive coping and likewise, adaptive and maladaptive coping. It is important to note that these relationships may also be attributable to the fact that the researcher created the category distinctions based on the theoretical literature, and not on a more rigorous method such as factor analysis. Therefore, intercorrelations among the measures may be due to categories that are not fully defined and operationalized.
Research Question 1

The first research question was designed to examine whether the students in this urban adolescent sample reported higher rates of uncontrollable stress than controllable stress. Results showed that the participants did report experiencing significantly higher percentages of uncontrollable stressors than controllable stressors. The internal consistency of the scores on the controllable stressor measure was somewhat low, however, and as such these results should be interpreted with caution, as it is not clear whether the controllable stress measure did an accurate job of capturing the construct of controllable stress. Additionally, comparing the percentage of items respondents endorsed on each measure may not be a valid approach to answering this question, as neither measure comprehensively captures the stressful experiences of the sample. One could argue that it would be impossible to accurately capture this information without obtaining collateral information from adults in the adolescents’ lives. It is also possible that self-assessment of stressors is subjective; one youth might better remember experiencing a stressor than another youth who also experienced that stressor. This could lead to discrepancies in the accurate reporting of stressful events.

Although the results are tentative due to methodological concerns, they are consistent with literature that has found urban adolescent youth to be frequently subjected to stressors over which they have little control or influence (Landis et al., 2007; Self-Brown et al., 2004). While it is impossible to know whether this particular sample experienced significantly more uncontrollable stress than a suburban sample, the results provide some evidence that uncontrollable stress, as opposed to “normal” adolescent
stressors (i.e. academic stress, sibling related stress, or relationship stress), may be a relatively common stress experience for this sample.

*Research Questions 2 and 3*

The second research question of the study was created to examine whether higher levels of controllable and uncontrollable stress were related to the three subjective well-being variables. The researcher hypothesized that higher levels of uncontrollable stress would be inversely related to positive affect and life satisfaction, and positively related to negative affect. It was hypothesized that controllable stress might function similarly. Unfortunately, the role of controllable stressors in predicting subjective well-being could not be examined due to the strong relationship between the scores on the controllable and uncontrollable stress measures. Because the researcher was most interested in the role of uncontrollable stressors, and due to the low internal consistency of the scores on the controllable stress measure, the controllable stress scale was removed from data analysis.

The third research question sought to examine the role that the three coping styles (active, adaptive, and maladaptive) play in the prediction of SWB. Because levels of uncontrollable stress and coping styles were regressed simultaneously onto the outcome SWB variables, the results from questions 2 and 3 will be discussed concurrently so as to provide an accurate picture of the models that were created for the analysis. The presence of multicollinearity between the active and adaptive coping variables prompted the researcher to conduct two regression analyses for each SWB variable, resulting in six total regression analyses. For each SWB variable, the first regression analysis contained the active coping variable and the second regression analysis included the adaptive
coping variable. Uncontrollable stress and maladaptive coping were included in all of the regression equations.

*Life Satisfaction*

In the first two regression equations, active coping and adaptive coping were found to significantly predict life satisfaction, such that as the use of each coping style increased levels of life satisfaction increased linearly. Maladaptive coping was also predictive of life satisfaction, although this was an inverse relationship; as levels of maladaptive coping increased, levels of life satisfaction decreased.

It appears that a variety of coping styles play an essential role in determining levels of life satisfaction amongst youth. This is consistent with previous literature that has found coping to be a protective factor for youth dealing with stress (Landis et al., 2007; Rasmussen et al., 2004; Wadsworth & Berger, 2002). Both active and adaptive coping appear to work similarly within this model, highlighting the overlap of these two variables for the outcomes to which they contribute. It is not altogether surprising that maladaptive coping was inversely related to life satisfaction, as turning to harming oneself or others may be both a result and a precursor to low levels of life satisfaction. Youth who are less able to use positive coping strategies to deal with life’s stressors may lose the potential protective benefits of such coping; as a result they may feel overwhelmed, discouraged, and generally dissatisfied with their life outcomes (Clarke, 2006). The importance of these findings for counseling and intervention or prevention programming will be discussed in the implications section in this chapter.
Positive Affect

Similarly to life satisfaction, regression equation results showed that as active and adaptive coping levels increased so too did positive affect. Maladaptive coping was also a significant predictor of positive affect, such that as its levels increased, levels of positive affect decreased linearly. No relationship was found between positive affect and uncontrollable stress in either model, indicating that most youth who experience high levels of uncontrollable stress are not precluded from feeling positive emotions. This finding underscores the importance of determining what factors might aid youth in feeling positive emotions in the face of high levels of stressors they cannot control. While it is important for researchers to understand the deleterious effects of stress, the role of resiliency should not be overlooked or underemphasized (Aronowitz, 2005; Blum, 1998).

Negative Affect

Because gender was related to negative affect, its effects were controlled for in both negative affect regression equations in order to examine the role of the other predictor variables without gender influencing the results. In these regression equations, uncontrollable stress, adaptive coping, and maladaptive coping were related to negative affect such that as levels of each increased, negative affect increased as well.

The existence of a relationship between maladaptive coping and negative affect further underscores the importance of coping behavior in the overall psychological health of adolescents. Perhaps what is most troubling about this finding relates to the reciprocal stress model that was outlined in the introduction of manuscript (Cole et al., 2006; Kim et
The reciprocal stress model holds that stressful life events will be predictive of maladaptive emotions and behavior as well as result from maladaptive emotions and behavior (Kim et al., 2003). It is possible that a similar cycle occurs for coping behaviors. As maladaptive coping behaviors are more often used, negative affect increases. In order to cope with the increased negative affect levels, maladaptive coping behaviors may be re-employed. The practice-related considerations gleaned from this finding will be reviewed later in this chapter.

The positive relationship between uncontrollable stress and negative affect is certainly important and is supported by one of the study’s central hypotheses: higher levels of uncontrollable stress will lead to decreased SWB. Although this relationship was not found for life satisfaction and positive affect, the existence of a relationship between uncontrollable stress and negative affect is an important addition to the subjective well-being literature. The main drawback of this finding was the researcher’s inability to compare it to controllable stressor levels to determine whether uncontrollable stress is more or less related to SWB than controllable stress. The researcher hypothesized that uncontrollable stress and controllable stress would be related to the SWB variables in similar ways, but it would have been interesting to either confirm or disconfirm this hypothesis, as some research has shown that uncontrollable stress is more psychologically harmful than controllable stress (Landis et al., 2007).

Also of interest was the finding that as adaptive coping increases, negative affect increases as well. It was hypothesized that better psychological outcomes would result from congruence between coping styles and stressors experienced; this does not appear to
be true for this sample. It seems that actively problem-solving when confronted with uncontrollable stressful events may be more psychologically beneficial than adapting to events that cannot be controlled.

*Research Question 4*

The fourth and final research question was designed to analyze whether any of the three coping styles served as moderators of the relationship between uncontrollable stress and SWB. In order to conduct this moderator analysis, a significant relationship between uncontrollable stress and at least one of the SWB variables (life satisfaction, positive affect, and negative affect) was required. Because uncontrollable stress was only found to be significantly predictive of negative affect, it was the only SWB variable utilized in the moderator analysis.

The results of the moderator analysis revealed a significant interaction between uncontrollable stress and active coping when predicting negative affect. In other words, active coping appeared to alter the relationship between uncontrollable stress and negative affect. In order to determine the nature of this change, the active coping variable was split into two groups representing high amounts of active coping and low amounts of active coping. A scatter plot was created to compare the relationship between uncontrollable stress and negative affect for both high and low active coping groups. Analysis of this scatter plot revealed that students who employ high levels of active coping experienced relatively stable negative affect at both high and low levels of uncontrollable stress. In other words, higher levels of uncontrollable stress did not appear to influence the levels of negative affect of youth who frequently utilize active
coping techniques. Conversely, the negative affect of students who reported using low levels of active coping was not stable, as lower levels of negative affect were reported at lower levels of uncontrollable stress, and higher levels of negative affect were reported at higher levels of uncontrollable stress.

This pattern indicates that active coping may protect urban adolescents from experiencing increased amounts of negative affect as a result of exposure to high levels of uncontrollable stress. This finding is inconsistent with previous literature on uncontrollable stress (Clarke, 2006; Landis et. al, 2007), and therefore lends evidence to disconfirm the investigator’s hypothesis that coping with uncontrollable stress through active mechanisms may be psychologically harmful. For this sample, it appears that the opposite is true. In terms of negative affect, the use of active coping appears to be relatively ineffective at lower levels of uncontrollable stress, yet beneficial at higher levels.

The results of the moderator analysis, while not supported by the literature that specifically pertains to uncontrollable stress, do not wholly diverge from the literature on stress and coping in general. Active coping, which is often viewed as a notably healthy way of coping that is used frequently by adolescents, has been previously linked to various positive outcomes, including high levels of well-being (Herman-Stahl & Peterson, 1999; Seiffge-Krenke, Aunola, & Nurmi, 2009). It is important to note, however, that the uncontrollable stress measure may not have accurately measured the concept of uncontrollable stress as intended by the researcher. The items were taken from the Life Events and Coping Inventory to specifically apply to stressors faced by
urban youth (Dise-Lewis, 1988). Based on this selection criterion, more than half of the items were uncontrollable in nature. While the measure certainly possesses face validity, it was not designed to specifically assess uncontrollable stress. For this reason, one must interpret the moderator results with hesitation. Two general explanations of the moderator results have been hypothesized by the investigator and will be outlined in the following paragraphs.

First, it is plausible that youth who report lower amounts of uncontrollable stress and apply active coping behaviors to those stressful events feel discouraged when what works for them in other, more controllable situations, is no longer effective. As a result, they would experience more negative affect than their peers who also experience lower levels of uncontrollable stress but employ less active coping. While this explanation makes sense, it does not appear to apply to youth who experience higher levels of uncontrollable stress. One might expect even more frustration from those who cope actively and experience higher levels of uncontrollable stress, and hence, higher levels of negative affect. In fact, the opposite was shown to be true for this sample. At higher levels of uncontrollable stress, those who cope actively report lower levels of negative affect. This may be because the deleterious psychological results of employing low levels of active coping simply may not be revealed until higher levels of uncontrollable stress are reached. While the active coping style may be considered incongruent with uncontrollable stress, there could be a psychological benefit in creating a sense of control in the face of a preponderance of events where true control is lacking. In other words, at higher levels of uncontrollable stress, believing one has control over one’s environment
may be more psychologically protective than accepting that one is not in control of many stressors in one’s life and coping in more adaptive ways, even if the belief itself is not rooted in reality.

An alternative explanation can also be provided for these findings. It is plausible that youth who experience higher amounts of uncontrollable stress and report coping actively are not actually attempting to cope actively with uncontrollable stress specifically. It is important to point out that this researcher could not pair coping strategies with individual stress events. In other words, it is not known whether active coping strategies were reported as being applied to uncontrollable or controllable events, and therefore it cannot be assumed that the adolescents in this sample are actually applying the active coping mechanisms they report using to the uncontrollable stressors they report experiencing. It may be that young people who face higher levels of uncontrollable stress, and who tend to cope more actively, also experience futility when applying active coping mechanisms to stress they cannot control. In contrast to their peers who experience lower levels of uncontrollable stress, they may “give up” attempting to cope with uncontrollable stress actively when a certain “critical point” of uncontrollable stress is reached. The important point here is that those students may not “give up” coping actively altogether. For the students who actively cope and report high amounts of uncontrollable stress, the experience of coping actively with events that they can control (e.g. school work, peer relationships, athletics) may actually decrease their experiences of negative affect and, in a sense, buffer them from negative psychological outcomes. This hypothesis could be tested in future studies by asking students to label
the specific coping techniques they use with particular stressors they experience, rather than inquiring as to how they cope with stress overall.

These differing explanations for the results of the moderator analysis are entirely theoretical in nature, and are not intended to be interpreted as conclusive explanations of the role of active coping in the relationship between uncontrollable stress and subjective well-being. They are meant, rather, to provide hypotheses regarding the nature of this moderator model that could be examined further in the future.

Post-Hoc Analysis

The aforementioned explanation called into question whether the high active coping group might actually have reported experiencing different levels of uncontrollable stress than the low active coping group. In order to gather more information about the stress experiences of the high active and low active coping groups, a post-hoc independent samples t-test was performed to determine whether the high active coping group reported experiencing more uncontrollable stress than the low active coping group. Results of this analysis revealed no group differences, indicating that the groups were relatively similar in their reported levels of uncontrollable stress.

Implications for Theory and Practice

The aforementioned results provide valuable information for both theory and practice. From a theoretical standpoint, the role of active coping as a moderator of the relationship between uncontrollable stress and negative affect in urban adolescent youth provides valuable theoretical information about how youth remain resilient in the face of adversity. While it may not make intuitive sense for active coping to aid in preventing
negative affect under high levels of uncontrollable stress, for this sample it appears to be occurring. If the researcher’s alternative explanation, that it is beneficial to actively cope with what one can control in the face of adversity, is accurate, then this information could be very valuable to practice. When working with youth who experience high levels of uncontrollable stress, it may be beneficial to assist youth in tailoring their coping behavior to the stressors they experience. Regardless of the rationale provided for the moderator results, the use of active coping appears to play a valuable role for youth with high levels of uncontrollable stress; strengthening the use of these skills could be easily incorporated into therapy and prevention programming.

The gender differences found in this study are also important for practice. As has been commonly found in the literature, girls reported experiencing higher levels of negative affect than males (Mazzaferro et al., 2006). If this is an accurate reflection of male and female emotional states, it may be advantageous to provide additional emotional support for urban adolescent females, who may be more vulnerable to the effects of high levels of stress. Tailoring mental health awareness programs differently for boys and girls should be an approach that practitioners consider.

Active and adaptive coping both resulted in some positive SWB outcomes for urban adolescent youth. While this finding is certainly not surprising, it should not be overlooked as an important way to support and build resiliency in youth who may be more vulnerable to negative outcomes based on their high levels of stress. Psychoeducational programs that outline what these coping styles are, how they are different, and when it might be best to use them could be extremely valuable in protecting
and promoting subjective well-being in urban youth. Perhaps positive coping skills should be taught alongside mathematics, English, and science, as high levels of SWB have been shown to be related to academic performance (Suldo & Shaffer, 2008). In addition to teaching active and adaptive coping, examples of maladaptive coping should be outlined for youth so that they can properly examine the skills they use most often. For children who learn to cope maladaptively from the adults in their lives, discussing the pitfalls of this type of coping could be an important lesson that may not be taught in the home.

The results of this study also underscore the importance of system level change. Uncontrollable stress was demonstrated to significantly impact levels of negative affect, which in turn can lead to a number of deleterious outcomes for urban youth. While it is important to arm urban adolescent youth with plenty of coping skills to employ in the face of such stressors, a better solution would be to eliminate the preponderance of uncontrollable stressors faced by youth growing up in urban, low-income neighborhoods. Uncontrollable stressors such as poverty and violence may contribute to increased levels of family stress, which can lead to higher rates of additional uncontrollable stressors such as family discord, parental divorce, domestic violence, and family death. Psychologists can do more than work with youth who are struggling with many stressors; they can become involved in with local, state, and federal government, as well as community advocacy groups, to help influence the laws, policies, and dearth of resources that contribute to the high levels of poverty and violence experienced by many urban youth.
Lastly, this study highlights the need for continued research regarding the relationship between stress, coping styles, and urban adolescent subjective well-being. While the data provided some valuable findings, a more rigorously designed study might provide information more easily applied to fieldwork. Understanding what leads to high levels of subjective well-being in youth is as, if not more, important than learning what leads to lower levels. It is only through learning what works for youth that researchers and clinicians can develop a more thorough understanding of adolescent psychology. Additionally, when researchers educate practitioners about the strengths of children in urban areas, those practitioners are likely to gain a more realistic and just understanding of a population that has too often been stereotyped as problematic and pathological. The value of supporting and promoting resiliency within urban adolescent populations should not be overlooked by researchers or practitioners.

Limitations

Perhaps one of the most crucial limitations associated with this study is the researcher’s inability to directly connect coping mechanisms to the stressors reported. The students were asked to report the stressors they experienced, as well as the coping mechanisms they employed, but they were not asked to state which coping mechanisms they used for their reported stressors. This poses a particular problem when interpreting the results of the moderator analysis. While it appears that students with higher levels of uncontrollable stress benefit from active coping mechanisms, it is unclear whether those students are actively coping specifically with uncontrollable stress.
Additionally, it is possible that labeling controllable stress as less harmful than uncontrollable stress may be inaccurate. Perhaps within both of the controllable and uncontrollable stress categories there are examples of positive and negative types of stress. For example, an uncontrollable stressor such as moving to a new school might ultimately result in a young person becoming more socially successful and psychologically adaptive than they would have been had they not moved. Clearly, more research that takes into account the potential benefits of stress and attempts to expand the definitions of positive and negative stress is needed. A future study might examine the effects of how youth subjectively assess their stressful experiences, rather than attempting to objectively label the nature of that stress.

The study was cross-sectional in design, and as a result causal relationships between the variables could not be established. A longitudinal design in which stressors, SWB, and coping behaviors are measured over time would provide researchers with meaningful information regarding the direction of the relationships studied. Additionally, the study utilized archival data. While the use of archival data is not necessarily problematic, the researcher could have designed the study differently if research questions had been formed before data collection. For example, the list of stressors would likely have included more items representing controllable stressors. The inclusion of more items may have increased the internal consistency reliability of the scores on the controllable stress measures. Had this scale been adequately reliable, comparisons between predictors of uncontrollable and controllable stress could have been made.
The information gathered in this study was entirely based on self-report, which should be interpreted cautiously, as research has demonstrated that adolescent self-report may not always be valid and reliable when cognitive difficulties and/or external distractions are present (Brener, Billy, & Grady, 2002). While many steps were taken to ensure that students were able to complete the questionnaires as honestly as possible (i.e. anonymity of results, availability of Spanish speaking administrators, and administrator monitoring during questionnaire completion), it is difficult to tell how accurately these students were able to capture their own experiences. It is promising, however, that Brener et al., (2002) found adolescent self-report to be an overall adequately reliable way to gain information about health-risk behaviors.

While steps were taken to remove measures whose scores did not demonstrate adequate internal consistency reliability from the analysis, it should be noted that a few of the measures were altered by the researcher for the purpose of the study (i.e. uncontrollable stress measure, coping measure). As such, these measures have not been subjected to a full evaluation of multiple forms of reliability and validity. The coping styles were created by the researcher and two qualified graduate students based on existing literature, but a factor analysis of the coping measure would have provided an additional source of psychometric evidence regarding the validity of the subscales for this measure. Unfortunately, this type of analysis was beyond the scope of the proposed study.

The results of this study provide much needed information regarding urban adolescent stress, SWB, and coping. The sample was comprised largely of Latino and
African American youth, and as such the results should not be generalized to communities represented mainly by European American youth or other ethnic/racial groups not well-represented in this study. Based on the school information, the majority of the participants in this study were most likely from low-income households. Therefore, these results should not be generalized to middle and upper class youth, who are likely not dealing with the same type of stressors experienced by the youth in this sample.

Conclusion

This research demonstrates the importance of considering uncontrollable stress as a predictor of subjective well-being in urban adolescent youth. Specifically, higher levels of uncontrollable stress were related to higher levels of negative affect. Additionally, the use of active and adaptive coping strategies was associated with higher levels of positive affect and life satisfaction. Adaptive coping was associated with higher levels of maladaptive coping. As expected, maladaptive coping was predictive of lower levels of subjective well-being. Lastly, youth who reported employing higher levels of active coping appeared to have more stable levels of negative affect than youth who reported employing lower levels of active coping. These results highlight the importance of tailoring prevention programs to urban youth, who are often faced with notably high levels of uncontrollable stress and may need support related to applying coping skills in their lives. Additionally, this research sheds light on the importance of addressing resiliency in urban youth populations.
APPENDIX A:

PARENT PERMISSION FORM
Dear Parents or Guardians,

Your child (7th & 8th grade) is being invited to participate in a six week prevention program designed by Elizabeth Vera, Ph.D., a counseling psychology professor at Loyola University Chicago. Dr. Vera and her graduate assistants from Loyola will be working with the children in the classroom in a program designed to promote positive decision making, problem solving, and enhance communication with friends, family members, and adults. The program will take place in your child’s classroom, at a time of day approved by the teachers and school administrators, during one class period, once a week, for 6 weeks. Your child will be asked to listen to information presented by the program staff, participate in small and large group discussions, and to complete short writing assignments as part of the program.

The “Choices” program was designed as a result of meetings that were held several years ago at Pierce with parents, teachers, and students who shared their concerns about problems that children are facing today. In order to evaluate the effect of this program, your child will be asked to complete a questionnaire before and after the program begins. The survey will ask your child about their attitudes about decision making and their confidence in problem solving along with a brief number of questions such as their gender, age, and race which will only be used to describe the children as a group.

There are no anticipated negative effects of your child participating in this program and if any of the children become uncomfortable with any of the topics discussed, school social workers are available to meet with them. The benefit of your child participating in this program is that he/she may learn strategies for avoiding risky decisions and improving problem solving. The benefit of your child telling us their attitudes before the program and after the program (the evaluation of the program) is that we can know whether the program is helpful.

Your child will never be asked to write their name on any of the program material or the survey, so anonymity will be protected. We will also not share the surveys with anyone in the school. Instead, we will present a summary of all the students’ responses to teachers and administrators at the end of the year to let them know whether the students might have benefited from their participation.

Your child’s participation in this program is completely voluntary. You can approve that your child participate in the whole program, the evaluation of the program, or just the program itself and not the evaluation. You can also withdraw your child from the program at anytime. Furthermore, with your approval, your child can decide to participate in the whole program, certain parts of the program, the survey, or only parts of the survey. Your child will be free to participate or not participate on a weekly basis. If they choose not to participate, there will be no consequences to your child, and he/she will be reassigned to another room to work on homework. However, your child will not be able to participate in any part of the program unless you give permission.

To answer any questions you have, talk to the staff from Loyola, and review the materials that will be used. You are invited to a meeting on March 1, 2005, at 9:15am in
the auditorium at the school. You are also free to contact Loyola University Chicago’s compliance manager about this project at (773) 508-2689 if you have questions about your child’s rights as a project participant.

If you approve of your child participating in the program, please sign the attached form, return it to your child’s homeroom teacher, and keep this note to remind you of the meeting and the contact numbers of everyone involved.

Sincerely,
Elizabeth M. Vera, Ph.D. / Loyola University Chicago / (312) 915-6958

Parent Permission for Loyola Choices Program

If you agree to let your child participate in the Choices program, please sign below and return this page to your child’s homeroom teacher. Keep the information on the other page for your records.

___________________________ _________________________ ___________
Name Child’s name Date

If you agree to let your child participate in the Choices program evaluation, please sign below.

___________________________ _________________________ ___________
Name Child’s name Date
APPENDIX B

STUDENT ASSENT FORM
STUDENT ASSENT FORM

You are being invited to participate in a six week program designed by Elizabeth Vera, Ph.D., a counseling psychology professor at Loyola University Chicago. Dr. Vera and her graduate students from Loyola will be working with you and your classmates in a program designed to promote positive decision making, problem solving, and enhance communication with friends, family members, and adults. The program will take place in your classroom, during one class period, once a week, for 6 weeks. You will be asked to listen to information presented by the program staff, participate in small and large group discussions, and to complete short writing assignments as part of the program.

In order to evaluate the effect of this program, you will be asked to complete a questionnaire before and after the program begins. The survey will ask you about your attitudes about decision making and confidence in problem solving along with a brief number of questions such as your gender, age, and race which will only be used to describe the students as a group.

There are no anticipated negative effects of participating in this program and if you become uncomfortable with any of the topics discussed, school social workers are available to meet with you. The benefit of participating in this program is that you may learn strategies to avoid risky decisions and improving problem solving. The benefit of you telling us your attitudes before and after the program (the evaluation of the program) is that we can know whether the program is helpful.

You will never be asked to write your name on any of the program materials or the survey, and you will never be asked to turn in any of your work to teachers or program staff. We will also not share the surveys with anyone in the school. Instead, we will present a summary of all the students’ responses to teachers and administrators at the end of the year to let them know whether the students might have benefited from participation.

With your parents’ or guardians’ approval, you can decide to participate in the whole program, certain parts of the program, the survey, or only parts of the survey. You will be free to participate or not participate on a weekly basis. If you choose not to participate, there will be no consequences. You will be reassigned to another room to work on homework. However, you will not be able to participate in any part of the program unless you have parental permission. Any questions you have can be answered by a Loyola University Chicago staff person or you are also free to contact Loyola University Chicago’s compliance manager about this project at (773) 508-2689.
Student Permission Form
By signing below, you are agreeing to participate in the Choices program.

_________________________________ ____________
Name                                Date
By signing below, you are agreeing not to participate in the evaluation of the Choices program.

_________________________________ ____________
Name                                Date
Please return this form to the Loyola University Chicago staff member in your classroom.
APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE
Are you a boy __________ or a girl __________? Homeroom #? __________
How old are you? __________
Country you were born in? __________ If not US, how long you’ve lived here __________
What is your nationality, race, or ethnicity? ________________
What languages do you speak? ________________ At home? ________________
Who you describe yourself as someone who gets:
Mostly A’ _____ Mostly B’s_____ Mostly C’s _____ Mostly D’s and F’s _____
How many adults live in your home? _____
I live with (circle): [Mother] [Father] [Grandmother] [Grandfather] [Aunt] [Uncle]
How many children live in your home? _____
Do you have an after-school job?
If yes, how many hours a week do you work? _____
Do you take care of your brothers/sisters or other family members on a regular basis? _____
If yes, when (circle all that apply): [before school] [after school] [weekends]
APPENDIX D

THE POSITIVE AND NEGATIVE AFFECT SCHEDULE
THE POSITIVE AFFECT AND NEGATIVE AFFECT SCHEDULE (PANAS)

In general how often do you feel the following emotions?

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Never</th>
<th>A little</th>
<th>Sometimes</th>
<th>A lot</th>
<th>All the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guilty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enthusiastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proud</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ashamed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attentive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worried</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afraid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

SATISFACTION WITH LIFE SCALE
SATISFACTION WITH LIFE SCALE (SWLS)

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In most ways my life is close to ideal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. The conditions in my life are excellent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. I am satisfied with my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. So far I’ve got the things I want in life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. If I re-live my life, I’d change nothing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
THE LIFE EVENTS AND COPING INVENTORY (abbreviated version)

Please look at the following list of stressful events that kids experience. Put a check mark next to all the events you have experienced in the last year and then indicate how stressful this experience has been.

<table>
<thead>
<tr>
<th>Event</th>
<th>True For Me</th>
<th>How stressful was this:</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of your parents died</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A family member died</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your parents divorced</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your parent went to jail</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picked up by police</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspended from school</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent moved out of home</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Got caught stealing</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had to move out of home</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A friend died</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had to repeat a grade</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family member arrested</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Took drugs</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family had money problems</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family member was hurt</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You were physically hurt</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rejected by a friend</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents argued or fought</td>
<td></td>
<td>Not at all---somewhat---pretty---</td>
</tr>
<tr>
<td>extremely</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. Forced to do something bad
   extremely
20. Felt like no one liked you
   extremely
APPENDIX G

BRIEF COPE
The last set of questions asks you how you deal or cope with problems when you have them. Think about how often you do the following when you have a problem.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I use school or activities to take my mind off it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>2. I try to do something about it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>3. I say to myself, “this isn’t real.”</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>4. I use drugs/alcohol to feel better.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>5. I get emotional support from others.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>6. I give up trying to deal with it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>7. I take action to make the situation better.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>8. I refuse to believe it is happening.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>9. I say things to let my feelings out.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>10. I get help from others.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>11. I use drugs/alcohol to get through it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>12. I try to make it seem more positive.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>13. I criticize myself.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>14. I come up with a plan to do something about it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>15. I get support and understanding from others.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>16. I give up trying to deal with it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>17. I look for something good in the problem.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>18. I make jokes about it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>19. I do something to think about it less (TV, sleep).</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>20. I accept the reality of what’s happened.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>21. I express my negative feelings.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>22. I find comfort in religion.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>23. I get advice from others.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>24. I learn to live with it.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>25. I think hard about what to do.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>26. I blame myself for what happened.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>27. I pray or meditate.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>28. I make fun of the situation.</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>29. I hurt others or take it out on others.*</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>30. I throw or hit something.*</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
</tbody>
</table>

*These items were added to the measure by the researcher in order to better capture experience of urban adolescents.
REFERENCES


VITA

Laura D. Coyle spent her early years in Milwaukee, Wisconsin and her high school years in Naples, Florida. Before enrolling at Loyola University Chicago, she attended the University of Florida, where in 2002 she earned a Bachelor of Science in Psychology with High Honors. At Loyola University Chicago she received a Master of Arts in Community Counseling in 2005 and a Doctor of Philosophy in Counseling Psychology in 2010.

Laura has presented research at various professional conferences, co-authored several published journal articles, and taught a number of undergraduate courses including Human Development, Identity and Pluralism, and Psychobiology. Currently, Laura is a Psychology Intern at the Veterans Affairs Medical Center in North Chicago, Illinois. She has recently accepted a tenure-track Assistant Professor position in the Department of Psychology at Fayetteville State University.