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**ATTITUDES THAT REFLECT RESILIENCE AND THEIR RELATIONSHIP TO
COPING RESPONSES AND PROTECTIVE FACTORS IN AFRICAN AMERICAN
COLLEGE STUDENTS**

By

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ABSTRACT

ATTITUDES THAT REFLECT RESILIENCE AND THEIR RELATIONSHIP TO COPING RESPONSES AND PROTECTIVE FACTORS IN AFRICAN AMERICAN COLLEGE STUDENTS

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A sample of 229 African American college students were surveyed in order to assess attitudes that reflect resilience and coping, and to evaluate their relationship. In addition, religiosity, spirituality, core convictions, and level of acculturation were assessed. Attitudes that reflect resilience were defined as beliefs that one can survive and make things better for self and others (Biscoe & Harris, 1994).

It was hypothesized that there would be a significant positive correlation between attitudes that reflect resilience and coping responses. It was also hypothesized that religiosity, spirituality, and core convictions would moderate the relationship between attitudes that reflect resilience and coping responses, and that levels of acculturation would be related to coping responses, core convictions, religiosity, spirituality, and attitudes that reflect resilience. A key focus of the study was to generate evidence regarding the direction of the relationship between coping responses and attitudes that reflect resilience. Because chains of relationships were being investigated simultaneously, and a bi-directional model was being tested, structural equation modeling (SEM), path analysis, reliability analysis, and exploratory factor analysis (EFA) were used to analyze the data.

The existence of a relationship between attitudes that reflect resilience and coping responses was supported, but the direction was ambiguous. Additionally, gender-based differences in coping responses were revealed, and protective religious beliefs were found to moderate the relationship between specific coping responses and attitudes that reflect resilience. Culturally salient religious beliefs and practices were directly related to protective religious beliefs and to spiritual and applied faith coping responses.

Findings from this study further suggest that supportive interventions should include the teaching of both coping skills and general resiliency attitudes. The results also point to the importance of religiosity, spirituality, and core convictions as protective factors. Finally, the results suggest the need for a revision of the items and subscales in the Resiliency Attitudes Scale, and more careful psychometric analysis of other scales used in resiliency research.

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DEDICATION

To the loving memory of my father, the late James Allen Moses Dixon.

DEDICATION

To my brother, Deric for showing me the true meaning of resilience, persistence, faith,
and love.

DEDICATION

To my mother, Lessie Mabel Brown-Dixon for her love, support, encouragement, and constant prayers. Thank you for the sacrifices you made for dad, my brothers and me. You are truly the world's greatest mom.

DEDICATION

To Elmorris for being a great role model and the worlds best big brother.

To Keith for his courage to keep trying, and for the willingness to help.

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To my extended family, for your loving support and prayers.

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CHAPTER I. INTRODUCTION

Statement of the Problem

Interest in the study of resilience has increased over the past decade in the social sciences and in education (Glantz & Johnson, 1999). Regarding resilience, Kaplan (1999) noted that:

Concepts have a life of their own. Sometimes they appear and then suddenly depart like fashion trends. These early exits are not necessarily premature, at least when the ideas were insubstantial to begin with. With this in mind, consider our current fascination with the notion of resilience. Does resilience qualify as an organizing concept with sufficient logical and emotional resonance to yield systematic theoretical and research inquiry that will make a lasting contribution? (p. 18).

The growing interest in resilience has emerged amid important trends. These trends include: (1) the emergence of the positive psychology movement (Ickovics & Park, 1998); (2) the emergence of multicultural counseling and research imperatives with their emphasis on developing ethnically and culturally relevant theory that informs interventions and research with people of color (Pedersen, 1987; Schiele, 1996); and (3) an increased attention to the role of religion and spirituality in mental and physical health (Bergin, Stinchfield, Gaskin, Masters & Sullivan, 1988). These trends are providing new and promising directions for the study of resilience.

Authorities in the field have indicated, however, that there is a need for additional research on resilience (Barbarin, 1993b; Garmezy, 1993; Garmezy & Masten, 1986;

Glantz & Johnson, 1999; Werner, 1995). This call for additional research is based on the consensus that there are yet large gaps in our understanding of this phenomenon (Barbarin, 1993b; Garmezy, 1993; Garmezy & Masten, 1986; Kagan, 1975; Kinard, 1998; Luthar & Zigler, 1991; Monaghan-Blout, 1996; Mrazek & Mrazek, 1987; Tarter & Vanyukov, 1999). According to models of resilience posited in the work of Barbarin (1993b), Flach (1988), Garmezy and Masten (1986), Mrazek and Mrazek (1987), Rutter (1985), Werner (1995), and Wolin and Wolin (1993), resilient persons cope better with major life challenges.

Jew, Green and Kroger (1999) however, raise questions about the relationship between resilience and coping. They hypothesized that “resiliency emerges from a system of specific beliefs that interact with environmental stressors to determine an individual’s coping skills” (p. 77). They further state “This definition places resiliency, as a belief system, causally prior to coping, as a set of behaviors based on a belief system” (p. 77). This cognitive behavioral conceptualization of resilience suggests a linear causal relationship between resilience and coping. The proposed relationship however, has not yet been empirically supported (Jew, personal communication, October 23, 2000).

In an earlier study, Jew and Green (1998) examined the effects of risk factors on adolescent resiliency and coping among a population of seventh through twelfth grade adolescents who reported varying levels of personal stress and adversity. The purpose of their study was “to assess whether adolescents’ self-reported as high, and low risk differed in their resiliency and coping scores” (p. 675). Resilience was defined as a set of beliefs that determine coping behaviors, and coping was measured using the Ways of Coping Scale (Folkman & Lazarus, 1980).

Jew and Green (1998) found that students who reported exposure to a high number of risk factors (at least five) had lower levels of resilience (i.e. beliefs that reflect resilience), and students who reported exposure to a lower number of risk factors had higher levels of resilience. This finding supported their hypothesis and previous findings in the literature on the relationship between resilience and risk factors. A similar pattern was expected to emerge in coping responses, however, Jew and Green were unable to detect any significant differences in the coping responses among students exposed to either low or high numbers of risk factors. They therefore concluded that there is a need to continue to examine the relationship between resiliency and coping.

Although there is a need for additional research on resilience, the literature has been criticized for the lack of reliable and valid mechanisms for measuring it. This criticism includes concerns over inadequate operationalizations of resilience (Kinard, 1998). Biscoe and Harris (1994) offer a possible solution to this problem. They developed the Resiliency Attitudes Scale (RAS). Instead of measuring resilience, this scale measures attitudes that reflect resilience. From such attitudes, one may infer resilience. This scale is yet under development, but it appears that it may lend itself well to the empirical study of resilience.

In addition to problems in measuring resilience and in deriving a clear understanding of the relationship between resilience and coping, resilience has been inextricably linked with risk and protective factors (Barbarin, 1993a, 1993b; Fine, 1991; Jew & Green, 1998; Mandelco, 1991; McCubbin, Thompson & McCubbin, 1995; Rutter, 1987; Turner, 1992; Werner, 1995, 1989). Risk factors are acute or enduring stressful life events and may include characteristics of the individual as well as the individual's

environment. Such factors usually result in increased vulnerability in individuals. Protective factors on the other hand, are skills, attitudes, personality traits, or environmental factors that contribute to, or enhance resiliency. While much resilience research has focused on the study of factors that place children and youth at-risk for positive outcomes (e.g., graduation from high school and college), additional work is needed to identify variables that can offset risk factors or enhance protective mechanisms (Luthar & Zigler, 1991; Mrazek & Mrazek, 1987). There is also a need to better apply these concepts to persons of color (Garmezy, 1993).

Purpose of the Study

The overall purposes of this study were (1) to examine the relationship between attitudes that reflect resilience and coping among African American college students, (2) to examine the moderating role of three factors that are believed to be protective in times of stress and adversity, and (3) to examine the relationship between level of acculturation and coping responses, attitudes that reflect resilience, core beliefs, religiosity and spirituality.

The specific objectives for this study were to:

- 1.) Broaden our understanding of attitudes that reflect resilience in African American college students.
- 2.) Better understand the relationship between attitudes that reflect resilience, coping and protective factors (religiosity, spirituality, and core beliefs).
- 3.) Investigate the relationship between level of acculturation and coping responses, core beliefs, religiosity and spirituality.

This study is important for two main reasons. First, it attempts to answer several questions about the relationship between coping and resilience that were raised by Jew and Green (1998) and Jew, Green and Kroger (1999) who hypothesized a linear causal relationship between resiliency and coping. A review of the literature and personal communication with Dr. Cynthia Jew (October 23, 2000) revealed that no empirical evidence exists either supporting or refuting their hypothesis.

Secondly, information gleaned from this study may be used to help programs that work with African American students who are both “at risk” and “non-at risk”.

Definition of Terms

For the purposes of this study, several terms will be operationally defined:

At Risk

Students who were admitted to Michigan State University through the College Achievement Admissions Program (CAAP) are defined as “at-risk”.

Non-At Risk

Students who were regular admits to the university. In this study, such students are referred to as non-CAAP.

African American

Refers to members of the American society that are of African ancestry, history, and culture. Other terms such as Blacks, and Afro-Americans refer to the same population.

Attitudes that Reflect Resilience

Attitudes that Reflect Resilience are defined as the beliefs that one can survive and make things better for self and others (Biscoe & Harris, 1994). These attitudes manifest themselves in an ability to persist in working through difficulties (Biscoe & Harris, 1994). They represent but one aspect of resilience. They shall be operationalized as a composite score on the General Resiliency Attitudes subscale in the Resiliency Attitudes Scale (Biscoe & Harris, 1994). The acronym “ARR” will represent Attitudes that Reflect Resilience in this study.

Coping

The “changing cognitive and behavioral efforts to manage psychological stress” (Tennen, Affleck, Armeli & Carney, 2000, p. 626). Coping occurs in response to situational and dispositional stress, and shall be operationalized as subscale scores on the COPE (Carver, Scheier & Weintraub, 1989). These coping responses shall be designated in this study using the acronym “CR”.

Religious Coping

The use of faith, religious beliefs, and practices to respond to situational or dispositional stress, and shall be operationalized as subscale scores on the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990). These religious coping responses shall be designated in this study using the acronym “RCAS”.

Religiosity

Perception of the depth of personal religious convictions, and shall be operationalized as question #10 (“How religious would you say you are?”) of the Multidimensionality of Religiosity Scale (Levin, Taylor & Chatters, 1995).

Spirituality

Perception of the depth of spiritual convictions, and shall be operationalized as question #13 (“How spiritual would you say you are?”) and question #14 (“How important is your spirituality to you?”) of the Multidimensionality of Religiosity Scale (Levin, Taylor & Chatters, 1995).

Core Convictions

The set of personal beliefs that reflect one’s disposition toward life, and shall be operationalized as a composite score on a scale developed specifically for this study and based on the work of Cooper-Lewter and Mitchell (1996).

Level of Acculturation

The extent of one’s orientation towards African American culture. It shall be operationalized as a composite score on the African American Acculturation Scale – Revised (AAAS-R; Klonof & Landrine, 2000). “Studies have found that levels of acculturation among African Americans are strongly related to type of coping strategy used to handle stress...” (Klonoff & Landrine, 2000, p. 237).

Protective Factors

“The influences that modify, ameliorate, or alter a person’s response to some environmental hazard that predisposes to a maladaptive outcome” (Mrazek & Mrazek, 1987, pp. 358-359). Three such factors – core convictions, spirituality and religiosity are under consideration in this study.

Risk Factors

“The elements in a person, family, community, or culture that may conduce to the development of maladaptive behaviors” (Garmezy, 1993, p.127), or negative, unfavorable, or stressful outcomes. Although risk factors are an important element in resiliency processes, this study will focus on the protective influences in the relationship between attitudes that reflect resilience and coping responses. Students who were admitted to Michigan State University under the College Achievement Admission Program (CAAP) will be considered “at-risk.”

Culture

”The patterns of beliefs, values, and commitments, as well as expected behaviors, resources, and so forth, that shape individual behavior” (Aldwin, 1994, p. 192). Culture shall be operationalized as the patterns of belief, values, commitments, and behaviors of the students of color that participated in this study.

Overview of the Study

Despite the strong interest and increased research, resilience remains a poorly understood phenomenon. This study will seek to advance our understanding by investigating attitudes that reflect resilience and their relationship to coping among at-risk

and non-at-risk African American college students attending a predominantly White mid-Western institution (PWI).

The research questions that will be the focus of this study are:

- (1) Is there a statistically significant positive relationship between attitudes that reflect resilience and coping among both “at risk” and “non-at risk” African American college students?
- (2) Do core beliefs, religiosity, and spirituality moderate the relationship between attitudes that reflect resilience and coping?
- (3) Is level of acculturation related to core beliefs, religiosity, spirituality, coping responses and attitudes that reflect resilience?
- (4) Do attitudes that reflect resilience vary by class level, gender, SES, program participation, and “at risk” status?
- (5) Is the relationship between attitudes that reflect resilience and coping responses reciprocal?

CHAPTER II. LITERATURE REVIEW

Introduction

This chapter contains a general overview of the resiliency literature and the theoretical frameworks that will inform this study, a review of select models of resilience, and criticisms of the resilience literature. A review of the literature on resiliency in African American college students will follow. This section will be followed by a review of the literature on coping among African American college students, followed by a review of the literature on coping and culture. The literature review will end with a summary of the findings that suggests the need for this study and that informs its methodology.

The main thesis of this study is that there is a significant positive correlation between coping and attitudes that reflect resilience among the at-risk and non-at-risk African American college student population, that religion, spirituality, and core convictions moderate the relationship between coping and attitudes that reflect resilience, and that level of acculturation is related to coping responses, religiosity, spirituality, and attitudes that reflect resilience.

Overview of the Resilience Literature

Glantz and Johnson (1999) provide a reasonably comprehensive review of the resilience literature. They indicate that research on resilience is a “formidable” challenge for anyone to undertake. The greatest challenge in conducting such research is perhaps integrating and summarizing the highly disparate body of literature.

Research in the fields of prevention and developmental psychopathology attempted to understand how people cope with and manage stress, the impact of risk and protective factors, stress resistance, and the development of ego-strength (Fine, 1991; Garmezy & Masten, 1986; Garmezy, 1993; Luthar & Zigler, 1991; Rutter, 1985, 1987; Werner, 1989, 1995). This research led to the emergence of the term resilience (Garmezy & Masten, 1986; Rutter, 1987). Developmental Psychopathologist Norman Garmezy coined this term in the early seventies (Glantz & Johnson, 1999).

The term “resilience” generally refers to the capacity to spring back or rebound from setbacks, stress, or trauma, and to successfully cope and adapt in the face of adversity. It is generally viewed as a multidimensional and contextual phenomenon (Glantz & Johnson, 1999). It has even been suggested that we replace the term “resilience” with the phrase “to cope with,” suggesting that resilience is fundamentally a question of how one copes with a given situation (Kumpfer, 1999).

In education, the social and behavioral sciences, and medicine, resilience has been used synonymously with such terms as invulnerability, hardiness, thriving, stress-resistance, competence, and ego-strength (Garmezy, 1993). In the social science literature in particular, resilience has been associated with stress management, adjustment, adaptation, and coping. Contemporary research suggests that resiliency varies with a number of factors including age, gender, and social environment (Glantz & Johnson, 1999).

Early studies have tended to treat resilience in individuals as a personality trait, and focused on it in response to risk as opposed to in response to protective influences. Researchers have more recently begun to focus on the idea of resilience as a process

(Freitas & Downey, 1998), and on the role of specific protective influences and factors (Rutter, 1987). With the changing paradigms in the social sciences towards a positive, multi-culturally-informed psychology has come a shift in the direction of research towards the influences of culture on resilience.

In general, continued research is needed in order to advance our understanding of protective influences on attitudes that reflect resilience and how this concept best applies to African American populations.

Why the Growing Interest in Resilience?

Ickovics and Park (1998) conclude that much theory and research in psychology focuses on mental illness, pathology, and the negative factors that contribute to pathological processes. Very little theory and research focuses upon personality strength, mental health, and the factors that contribute to psychosocial and emotional well-being. The consequence is that we have developed a psychology that is oriented towards pathology, human weakness, disease, and deficiencies. Persons of color have, particularly been negatively affected by such deficit models.

Within the past three decades, however, the fields of medicine and the social and behavioral sciences have experienced a paradigm shift from the disease model of human health towards a more positive model that emphasizes strengths and assets (Ickovics & Park, 1998). This shift in paradigms has resulted in new directions for research and practice in the field of psychology. Instead of a strict focus on pathology and human weakness, psychologists in research and practice are encouraged to make the effort to identify, focus, and build upon human assets and strengths. The shift towards a more

positive psychology is also reflected in the study of resilience and in the literature regarding services to African American populations.

Relevant Theoretical Frameworks that Inform this Study

As already noted, resilience has been conceptualized broadly and inconsistently throughout the literature (Glantz & Johnson, 1999; Kinard, 1998). It has been conceptualized most often as a personality trait with an emphasis on risk factors that help to shape this trait. The more recent literature portrays ecological and cognitive / behavioral conceptualizations of resilience (Freitas & Downey, 1998). In addition, there is a plea for greater attention towards identifying and studying the protective factors that influence resiliency process (Barbarin, 1993a, 1993b; Kumpfer, 1999; Luster & McAdoo, 1994; Rosen, 1982; Rutter, 1987, 1985).

Below, I will discuss the following theoretical frameworks that inform this study: Cognitive Appraisal Theory of Coping and Resilience, the Wolin and Wolin Theory of Resilience, Systems Theory, Afrocentric Theory, and Life-Span Developmental Theory.

Cognitive Appraisal Theory of Coping and Resilience

Jew, Green, and Kroger (1999) developed a theory of resilience that was informed by the Cognitive Appraisal Theory of Stress and Coping by Lazarus and Folkman (1984). Their pioneering work may indeed be a significant contribution to the study of resilience as it offers researchers a simple to understand model that lends itself well to empirical testing.

Lazarus and Folkman (1984) define stress as a multidimensional phenomenon that manifests itself variably across situations. There is good stress and there is bad stress.

Good stress can be motivational or inspirational, and can be welcomed as a challenge. The bad stress usually shows up in the form of anxiety, nervousness, and worry. It can also manifest itself as physical and mental illness. The assessment that a situation is stressful depends on our appraisal of that situation. Lazarus and Folkman (1984) offer a framework for conceptualizing our response to stress in the form of a theory called the Cognitive Appraisal Theory of Stress and Coping.

The Cognitive Appraisal Theory of Stress and Coping was suggested in the work of Jew, Green, and Kroger (1999) as a framework for explaining the emergence of resilience. Although Jew, Green and Kroger did not give the details of how this theory would work in their published studies, they defined resilience as a system of beliefs. According to cognitive theory in psychology - thoughts, cognitions, and beliefs can influence or direct behavior. As such, beliefs or attitudes that reflect resilience may help determine behaviors that reflect resilience. These behaviors were identified as a set of skills and abilities in Mrazek and Mrazek's (1987) early work on resilience in maltreated children.

Jew, Green & Kroger (1999) used the Cognitive Appraisal Theory of Stress and Coping (Lazarus & Folkman, 1984) to inform their conceptualization of resilience. This theory assumes that (1) a person perceives or experiences stress in his or her environment, (2) appraises the situation, (3) decides upon a coping response (or inaction, depending on their cognitive set) based on the appraisal, previous learning, values, beliefs, etc., and (4) reappraises the situation to see if additional action is needed to eliminate or reduce the stress.

This framework says that as an individual experiences stress in his / her environment, cognitive processes are triggered that start the person appraising their situation. The appraisal process occurs in two steps: primary appraisal and secondary appraisal.

During primary appraisal processes, the person makes one of three choices about a stressful or adverse situation: (1) appraisal of situation or stressor as irrelevant - an encounter with the environment carries no implication for one's well-being, (2) appraisal of the stressor or adverse situation as benign-positive - this happens when the outcome of an encounter with stress or adversity is positive, as in personal growth, and (3) appraisal as stressful, which includes the realization of (a) actual or perceived harm or loss, (b) a threat or pending negative consequence, or (c) challenge – a situation in which the person is able to mobilize coping efforts and manage stress with a resulting increase in knowledge and skills. The chosen response has important implications for adaptation and adjustment.

Once the person has completed the initial appraisal of the situation and identified some possible outcomes, and options, he/she can move to a second level of appraisal in which the person must decide what is to be, or can be done about the situation. In most instances, the person realizes that something must be done to manage the situation and the associated stress / anxiety. What a person chooses to do is determined by a host of factors such as past learning, available resources, values, beliefs, emotions, etc.

The primary and secondary appraisal processes interact with each other in shaping the degree of anxiety experienced by the person and determining the quality of their reaction or coping response. Ideally, the older and more mature individual has more life

experience, and hence, should also have a broader range of coping responses. Variations in coping ability may suggest either strength or vulnerability. Circumstances that extend beyond a persons control as well as individual variations in temperament help determine the coping responses. Once a response is decided upon, the individual may reappraise the situation and decide if further action is needed to thwart any further danger or harm to self.

Cognitive Appraisal Theory appears to be an ideal framework for conceptualizing stress, coping and cognitive aspects of resiliency processes. However, unless path analysis is done to assess the direction of these relationships, we cannot make (causal) inferences about this relationship. According to Jew (personal communication, October 23, 2000) no such analysis has been done on their model of resilience.

The Wolin and Wolin Theory of Resilience

Wolin and Wolin (1993) developed a theory of resilience based on clinical interviews with twenty-five clients from their private practice. According to their theory, resilience develops over time and is the ability or capacity that emerges from the individual in the form of skills. These skills become “lasting strengths” and become a fixed part of the self. These skills are called resiliencies. They include: insight, independence, relationships, initiative, creativity, humor and morality.

These skills and abilities tend to “cluster” by personality – different personalities have a different set of resiliencies. Wolin and Wolin (1993) posit that people learn to be vulnerable to life stress and problems, and that few people have all seven resiliencies. They believe overcoming vulnerability is a matter of learning to think and behave differently. According to this theory, you can “uncover” or “discover” your resilient self

simply by reading about the success of survivors. Wolin and Wolin credit psychology's "preoccupation with pathology and problems" as the culprit in making people vulnerable to stress. The Wolins believe that people learn and are conditioned not to be resilient. The Wolins developed the "Damage Model" to help explain the etiology of vulnerability and its resultant pathology upon individuals. This pathology manifests itself in the form of pathological thoughts, feelings and behaviors. The "Damage Model" is only theoretical and is not empirically supported.

The counter to the Damage Model is the "Challenge Model." This model explains how people rebound from adversity. It too, is theoretical and lacks empirical support. The Challenge Model is an attempt to explain the etiology of vulnerability and resilience. It says that vulnerable people must reframe their view of life if they are to become resilient. Wolin and Wolin (1993) contend, "By reading this book, you can broaden your awareness of your strengths and retrieve lost memories of the times that you successfully rebounded from pain (p. 18)." The key is to change your thinking from victim to survivor. Wolin and Wolin cite "case reports" as research evidence for the Challenge Model (p. 18-19). They also contend that a number of experiments on resilience have added to their understanding of how survivors overcome "formidable stumbling blocks" (p.18).

Biscoe and Harris (1994) developed a scale that purports to assess attitudes that reflect the seven skills and abilities identified in the work of Wolin and Wolin (1993). Items in the six subscales of the Resiliency Attitude Scale (RAS) were written to represent the seven resiliencies: insight, independence, relationship, initiative, creativity/humor, and morality (in the RAS, creativity and humor were combined and

treated as one resiliency). A seventh subscale was developed by Biscoe and Harris and included in the RAS as a measure of general resilience. The “General Resilience” subscale represents skills that reflect persistence at working through difficulties, and is defined as the belief that one can survive and make things better for oneself and for others (Biscoe & Harris, 1994). The RAS is yet under development. Findings from this study may help provide additional validity and reliability data for this scale.

Systems Theory

Systems theory (Bowen, 1978; Minuchin, 1974) represents an ideal framework for understanding resiliency. Systems theory asserts that behavior may be understood in the context of the dynamic interaction between the person and his or her environment. Behavior takes on meaning within the context of systems that overlap, converge and diverge. Although no body of literature has specifically stated that this framework should be used to conceptualize resilience, it has been implicated in the work of Kumpfer (1999) and others who posit ecological models of resiliency.

Freitas and Downey (1998) call for a dynamic, systemic conceptualization of resilience that helps explain coping in children across the different stages and domains of development throughout life (e.g. relationships with significant others, academics, etc.). They suggest a shift in focus from striving to identify resilient traits in a person to identifying systems that foster resilient outcomes. The church, the family, the school, and the home each represent such systems (Billingsley & Caldwell, 1991; Boyd-Franklin, 1989). This study may inform us about the church and religion as important, resiliency fostering systems.

Afrocentric Theory and Culture-Specific Approaches

Much has been written in recent years regarding the need to utilize culture-specific approaches in research (Schiele, 1996; Swigonski, 1996). For example, Asante (1987, 1988) has been the leading proponent of using an Afrocentric approach in research and theory construction. Afrocentricity (Asante, 1987) may be defined as “placing African ideals at the center of any analysis that involves African culture and behavior.” (p.6).

Dana (1993) and Ponterotto and Casas (1991) have also spoken to the issue of culture-specific research and how this approach enhances our understanding of a particular group. These authors speak of the emic and etic approaches to research. An emic approach is one that studies a culture from within that cultural perspective. An etic approach does the opposite and tends to be comparative in nature.

Authorities in the field suggest that researchers develop and execute studies, as well as interpret research results using greater sensitivity to, and consideration for unique cultural and ethnic differences (Jones, 1991). This approach has been used to help build a Black psychology that includes a value for the oral tradition (the transmission of knowledge orally), communalism (a valuing of the group more than the individual), affect (the integration of feelings with thoughts and actions) and spirituality / religiosity (the power of God in the matters of this life)(Jones, 1991).

One of the aims of this study was to inform our understanding of the relationship between attitudes that reflect resilience and coping behavior in African American college students. The moderator variables identified in this study have been cited in the literature as important aspects of African American culture and ethos (Cooper-Lewter & Mitchell,

1996; Donahue & Benson, 1995; Ellison, 1993; Ellison & Day, 1990; Frazier, 1964; McCall, 1986; Mitchell, 1975; Moore, 2000; Ventis, 1995; Washington, 1964). Level of acculturation was included in this study to help examine the salience of religion and spirituality in the sample. Accordingly, Afrocentric Theory may help inform the investigation of religion, spirituality, and core beliefs as protective influences in the lives of African American college students, and may help explain the salience of religion as an aspect of acculturation.

Life-span Developmental Theory

Glantz & Johnson (1999) offer a critical review of the resiliency literature and conclude that perhaps the best model for conceptualizing resilience as a process is a life-span developmental model. A life-span developmental model of resilience assumes that resilience manifests itself differently at different stages of development. Life-span developmental theory appears to offer a reasonable framework for considering some of the salient issues that college students might experience. Such concerns might include relationship issues, self-esteem, separation-individuation issues, dependency issues, gender-identity issues, racial and ethnic identity issues, and career choice. Religion and related concerns may recur at any stage of development along the life cycle. The way religious issues manifest themselves and how they are used in coping will also vary with stage of development. The finding that religion and core convictions improve coping, and resilience in both groups of college students might suggest that religion serves an important function in early adulthood and late adolescence (Oler, 1997; Cooper-Lewter & Mitchell, 1996).

Models of Resilience

In addition to the theoretical frameworks presented above, several models of resilience have been identified and demonstrate that an attempt is being made to expand our understanding of resilience. However, many models of resilience still equate it with the mere possession of select protective factors (Glantz & Johnson, 1999). Few existing models define resilience as a process and most fail to identify and discuss the possible implications of ethnicity and culture in manifestations of resilience processes (Barbarin, 1993b; Kumpfer, 1999). Given this, I will discuss the three models most relevant to this study – ecological, life cycle, and transactional.

Ecological

In a conceptual article on resilience in child maltreatment victims, Mrazek & Mrazek (1987) posited an ecological model of resilience. Resiliency was conceptualized as an outcome of the dynamic interaction between personality traits, protective factors, and risk factors. They identified twelve personal characteristics and skills that are believed to foster resilience. These include:

- Rapid responsivity to danger
- Precocious maturity
- Disassociation of affect
- Information-seeking
- Formation and utilization of relationships for survival
- Positive projective anticipation
- Decisive risk taking
- The conviction of being loved

- Idealization of an aggressor's competence
- Cognitive restructuring of painful experiences
- Altruism
- Optimism and hope

(Mrazek & Mrazek, 1987, pp. 359-362)

While it is possible, and even plausible, that these characteristics and skills do foster resilience, this model fails to explain how that process takes place in the individual. A major strength of this model is that it offers counselors a repertoire of skills that can translate into goals to accomplish in therapy or in counseling. Jew & Green (1998) used this model to develop a scale for measuring resiliency. Their scale is yet under development.

Life-Cycle

Flach (1988) developed the Life-Cycle model, which conceptualizes resilience as a process. According to this model, a person progresses through eight stages of the human life cycle. These are:

- Birth
- Childhood
- Adolescence
- Young, single adulthood
- Young marriage
- Parenthood
- Middle age
- Aging

Each stage in the life-cycle holds special challenges, characteristics, responsibilities, and opportunities that require a person to change in order to cope effectively. Movement from one stage to another occurs as one grows and matures. The actual movement from one stage to another induces some amount of stress that helps prepare the person for the next level of development.

Between each of the eight life stages there occurs a “bifurcation” - a point where we respond to the stress and strain of life. It is during these times (i.e., the bifurcation point) that we might find ourselves struggling from within ourselves either mentally, or physically (or even spiritually) or outwardly via our actions. Our response indicates the need to change, giving up attitudes and patterns of behavior that are outmoded, or even harmful. These are replaced by more mature ways of thinking and behaving that are consistent with growth and development along the lifecycle. Although the actual conditions per life stage differs from the other stages, there are specific universal issues that recur each time the individual passes through a bifurcation point. These include:

- The need to adapt to changing external circumstances.
- Reconsideration of one’s self-image, and holding on to and restoring self-esteem.
- Forming new human relationships and renewing old ones.
- Giving up people and things we love because they die or go away.
- Balancing our ability to be independent against our need for others.
- Redefining or reaffirming our purposes in life.

Flach (1988) identifies fourteen traits that he believes contributes to one’s resiliency. Attitudes that reflect resilience are implied in the traits. These traits include:

- A strong, supple sense of self esteem

- Independence of thought and action, without fear of relying on others or a reluctance to do so
- The ability to give and take in one's interactions with others
- A well-established network of personal friends, including one or more who serve as confident
- A high level of personal discipline
- A sense of responsibility
- Recognition and development of one's special gifts and talents
- Open-mindedness and receptivity to new ideas
- A willingness to dream
- A wide range of interests
- A keen sense of humor
- Insight into one's own feelings and those of others, and the ability to communicate these in an appropriate manner
- A high tolerance of distress
- Focus - a commitment to life, and a philosophical framework within which personal experiences can be interpreted with meaning and hope, even at life's seemingly most hopeless moments (Flach, 1988, pp. 113-114).

Transactional

Glantz & Johnson (1999) posit a transactional model in which resiliency is the outcome of a dynamic interaction between (1) environmental precursors, commonly called risk and protective factors, (2) personal characteristics of the resilient person, (3) reintegration or positive outcome after a negative life experience, and (4) dynamic

processes that mediate between the person and their environment, and the person and the outcome (e.g. effective coping). Their model parallels the Flach's (1988) model, each of which offer a reasonable framework for exploring the relationship between culture, ethnic identity, and resilience.

Finally, Kumpfer (1999) organized variables found related to increased resilience into a dynamic framework that allows for interactions between resilient people and their high-risk environments. She suggests that resilience may not be a single construct as it is often modeled throughout the literature. Instead, it might be a complex of related processes.

Summary

Cognitive Appraisal Theory, the Wolin and Wolin Theory of Resilience, Systems Theory, Afrocentric Theory, and Lifespan Developmental Theory may be used to inform our approach to, and understanding of resilience. In particular, these theories help explain the importance of the variables selected as moderators in this study, and they help provide a framework for understanding the relationships and interactions between these variables and the relationship between attitudes that reflect resilience and coping responses. The majority of resiliency models suggest, as seen in this review, that resilience is a complex phenomenon that emerges from the dynamic interaction between personality, environmental, risk and protective factors. Comparison of protective factors across models reveals some commonality between models. Each of the models identifies the importance of family, social and community support and maintaining attitudes that reflect resilience. They also suggest important links between resilience and coping, and culturally salient factors that may serve to enhance resilience and coping. However, we

are yet in need of additional research to fill the gaps in knowledge that these models do not explain (e.g. the empirical measurement of resilience).

Major Criticisms of the Resiliency Literature

Despite over thirty years of research on this phenomenon, we cannot definitively explain resilience. We are not sure if it is a fixed or mutable personality trait or a process. Although we have some ideas of factors that may contribute to, or detract from the development and manifestation of resilience, we have not yet identified a sure mechanism for fostering it. A critical review of the literature reveals that the construct resilience has been operationalized and measured disparately throughout the literature (Glantz & Johnson, 1999).

In the existing resilience literature, the measurement of resilience is often accomplished by operationally defining resilience as scores on already existing scales that were designed to measure different but conceptually or theoretically related constructs. For example, Chesley-Carter (1998) operationalized resilience as a score on a measure of social competence. Such an operationalization of resilience merely captures one aspect of it, and as such, may inadequately represent the phenomenon. In another study of the relationship between resilience, social competence, coping ability, and gender, resilience was operationalized as a score on the California Child Q-sort (Mandleco, 1991).

Studies that utilize empirically validated and reliable measures of resilience may represent a more significant contribution to the literature. Several instruments designed specifically for quantifying resilience were identified (Ahn, 1991; Biscoe & Harris, 1994; Jew, Green & Kroger, 1999; Kelso, 1999). However, these scales are still under development, and the statistical validity and reliability of these scales are still in question.

Although a host of new and promising developments have occurred, a number of problems yet plague resiliency research. Critique of the resilience literature yet finds (1) ambiguity in definitions of risk and protective factors, (2) the lack of a unifying conceptual framework throughout the literature, therefore making it nearly impossible to integrate findings across studies, (3) the tendency of investigators to use models that are linear and unidirectional, with static variables as opposed to using more complex, recursive and bi-directional models, (4) excessive attention to problem behaviors and negative life conditions as either outcome or predictor, (5) inadequate use of multivariate approaches in conceptualizing or measuring models, (6) excessive reliance on inferred measures of resilience, and (7) few if any, attempts to identify important and salient sociocultural factors that may foster resilience in people of color. Perspectives in multicultural counseling and research beg the question of whether resilience in one culture or race is the same as resilience in another (Genero, 1995; Racklin, 1999). Below, I will comment on each of these criticisms.

Ambiguity in definitions of risk and protective factors

A major problem in the research on resiliency is that definitions of risk and protective factors, as well as definitions of resiliency, are varied and ambiguous throughout the literature. This variation and ambiguity makes it difficult to integrate results across studies. Often, what might be considered a risk factor in one study may be defined as a protective factor in another.

In addition, little attention is paid to how specific risk factors might cancel out the effects of select protective factors. For example, Barbarin (1993b) very poignantly points out that poverty has the effect of canceling the protective influence of select protective

factors in the lives of some at-risk populations. Often, this type of effect is not taken into consideration in studies of resilience in at-risk populations.

The Lack of a Unifying Conceptual Framework

It is difficult to find two or more studies of resiliency that draw upon a single (common) psychological theory. Several theoretical frameworks have been used to conceptualize resilience (Freitas & Downey, 1998; Glantz & Johnson, 1999). Within some of these frameworks, resiliency has been modeled as an immutable or fixed trait (Mrazek & Mrazek, 1987), as a belief system (Jew, Green & Kroger, 1999), and as the dynamic interaction between risk factors, protective factors, and stress (Rutter, 1987, 1985).

The Tendency to Use Models that are Linear and Unidirectional

Perhaps due to the relative novelty of this topic, and the potential complexity of statistically analyzing such models, few studies in the research literature offer non-linear, bi-directional models of resiliency. Fortunately, technological advances in computerized analysis of data may allow for the development of more complex models of resiliency in the future. Such a model was examined in this study.

Excessive Attention to Problem Behaviors and Negative Life Conditions

Excessive attention to problem behaviors and negative life conditions is a pervasive feature of much research in psychology. Until recent, the literature has tended to emphasize risk and resilience as well as resilience amid negative life conditions and problem behaviors. The shifting paradigms in the social sciences towards health and wholeness, and the move towards prevention over remediation seem to hold the most

promise for developing research studies that emphasize strengths, protective influences and resilience.

Inadequate Use of Multivariate Approaches in Conceptualizing or Measuring Models

Recent advances in technology have made the use of multivariate methods and data analysis less cumbersome. Our understanding of resiliency can be greatly enhanced through the use of more complex multivariate models of resiliency. Use of multivariate analysis is recognized in statistics as the most powerful analysis yet available in research. As we gain a better understanding of resilience we may witness a greater use of multivariate methods as a tool for extending studies on resilience. This study employed Structural Equation Modeling, Path Analysis, and Exploratory Factor Analysis.

Excessive Reliance on Inferred Measures

Many studies of resilience infer resiliency from instruments that were designed to measure different constructs. A more reliable strategy however, would be to infer resilience from instruments designed to measure aspects of resilience. The measure used in this study is an inferred measure of resilience using an instrument designed specifically to assess attitudes that reflect resilience.

Little Attention to Important and Salient Sociocultural Factors that Foster Resilience among People of Color

Little resilience research focuses on the role of salient social and cultural factors in resilience (Barbarin, 1993b; Genero, 1995). The multicultural movement in psychology and Afrocentric Theory are now urging researchers, counselors, and clinicians to consider the influence of culture, ethnicity, social class, gender, and other important differences on psychological processes and constructs (Pedersen, 1987; Asante, 1987).

Resilience literature has paid little attention towards exploring the cultural and ethnic fairness and appropriateness of instruments designed to measure resilience (McCubbin, Thompson, & McCubbin, 1995). The Resiliency Attitudes Scale (Biscoe & Harris, 1994) is being piloted on a sample of African American college students in this study. The results from this study may suggest the appropriateness of using this scale with this population.

Summary

There is clearly a need for attention to these concerns in resilience research. Given the advances in our understanding of resilience, and the developments in research methodology now available, it is conceivable that many of these problems can be redressed.

Resilience and Protective Factors

As previously mentioned, until recent, much resilience research has tended to focus on resilience amid risk. The more contemporary trend however, is towards the study of resilience and protective influences. Kaplan, Turner, Norman & Stillson (1996) identify twenty protective factors they believe may contribute to the development of resilience. These factors are arranged into four categories. They include:

- (A) Individual attributes: (1) easygoing temperament or disposition, (2) intellectual capabilities, especially verbal and communications skills, (3) self-efficacy, (4) realistic appraisal of the environment, (5) social problem-solving skills, (6) sense of direction, or mission, (7) the capacity to understand and respond to other's feelings, (8) humor, (9) adaptive distancing;

- (B) Family Protective Factors: (10) consistent, warm, positive relationships with a caring adult, (11) positive family environment and bonding, (12) high but realistic parental expectations, (13) family responsibilities and household tasks, (14) positive parental modeling of resilience and coping skills, (15) extended support networks, including family and friends,
- (C) School Protective Factors: (16) opportunities for involvement in school decision making, (17) high but realistic expectations for student academic performance, (18) caring, supportive school atmosphere, and
- (D) Community Protective Factors: (19) positive community norms, and (20) Community resources (pp. 159-160).

Among these four categories, no specific mention was made of cultural/ ethnic factors that might contribute to the development of resilience. The literature suggests that the Black church is an important institution in the Black community, and that it has played an important role in the coping behaviors of African American people (Logan, 1980; Oler, 1997; Richardson & June, 1997). The strong sense of faith in God and spirituality that is fostered in the Black church is believed to have an important protective influence amid crisis and adversity. This study will examine the role of religious faith and spirituality in the relationship between coping and attitudes that reflect resilience in African American college students.

Resiliency in African American College Students

Few published studies exist that specifically focus on resiliency in African American college students. Thompson (1998) and Ford, Kokjie, and Lewis (1996) represent two such studies. The focus of each of these studies is on identifying factors that may have a protective role in coping with stress, and that may contribute to resilience.

Thompson (1998) conducted a quantitative / qualitative study of predictors of resilience in African American college students and adults. The quantitative half of the study was based on survey data taken from African American college students and the qualitative portion of the study was based on interview data taken from African American adults. Findings from this study suggest that college students who experienced poverty during childhood were less likely to consider themselves to be as resilient as other African Americans their age. This finding further substantiates what we already know about the deleterious and pervasive influence of poverty on attitudes that reflect resilience (Barbarin, 1993b). Further research is needed in order to identify important protective influences that may offset the negative effect of similar types of risk factors.

Ford, Kokjie and Lewis (1996) attempted to identify factors that are believed to contribute towards academic resilience among urban “at-risk” African American male college students. Academic resilience was defined as “the ability to manifest high academic competence despite high stress” (p. 19). Participants in this study were African American males who self-reported exposure to high levels of stress. The psychosocial variables examined included emotional intelligence quotient, bicultural behaviors, locus of control, and social support. The sample consisted of 104 African American male

college students enrolled at a Historically Black college. Ten percent of the sample (approximately ten participants) was from a predominantly White institution. The authors found that emotional intelligence quotient was a significant contributor to academic resilience.

In addition to studies that try to identify factors that contribute to the development of resilience, training programs have been developed that aim to foster resilience. A regional TRIO association comprised of personnel from the States of Colorado, Montana, Wyoming, Utah, North Dakota, and South Dakota formed a group named the Association of Special Programs in the Region Eight (ASPIRE). ASPIRE developed a series of professional development trainings that target TRIO programs. This group developed a training program that links retention of high-risk college students with the ability of the TRIO staff to foster attitudes that reflect resilience. They contend that resilience is related to retention via a demonstrated commitment to students. The focus of interventions with students then, is to facilitate the development of the seven resiliencies cited in Wolin and Wolin (1993). An eighth resiliency – spirituality was added to the list of attitudes that reflect resilience that should be fostered among TRIO students and staff. The measure that was used in this study to assess attitudes that reflect resilience (Biscoe & Harris, 1994) is derived from the model of resilience posited in Wolin and Wolin (1993). While not the main focus of this study, data from this study may better inform TRIO staff and students who are often labeled as “at-risk”, about these resiliencies. In addition, this study may add support to the notion of spirituality as an eighth resiliency.

Coping, Culture and Theories of Coping

As previously mentioned, levels of acculturation among African Americans are strongly related to the type of coping strategy used to handle stress (Klonoff & Landrine, 2000). This suggests an important link between culture and coping. This section will focus on coping and culture, and will touch on aspects of coping theory and research that are relevant to this study.

Coping is recognized as a critical barometer of mental well-being and human functioning (Aldwin, 1994). As an aspect of normal functioning, coping alone is or can be the telltale sign of adjustment difficulties. Coping behaviors then, are important indicators of well-being and health. Coping constitutes a major category of psychiatric and psychological assessment in many clinical and counseling settings, and it is an important aspect of assessment in many educational and medical settings (Aldwin, 1994). It is recognized as the mediator of stress and can serve as either an outcome or a predictor of an outcome (as in this study). The literature documents quite well the fact that coping varies along a developmental and chronological trajectory (Aldwin, 1994). This means that coping varies with age, personality, stage-of-life, mood, mental state, sex, social-economic status and many other factors. A major and yet unresolved area of coping research has been towards understanding the role and importance of culture and coping (Aldwin, 1994). There is support in the coping literature for the existence of cultural variations in coping.

Jenkins (1995) argues that African American people may indeed have a different way of approaching problems than the majority culture. In addition, a “folk psychology” seems to have emerged among African American scholars in the social sciences that seem

to support this idea. The purpose of this folk psychology is to help explain the culturally different ways African Americans might approach problems, learn, socialize, adjust and adapt.

Jenkins (1995) states:

Like most other psychologists, I am convinced that the coping characteristics are what must be developed if the human race is to survive and fully develop its potential. More specifically, however, the theoretical trends that emphasize coping and mastery seem to me to be sorely needed when choosing a psychological approach to the study of the African American (p. ix).

Jenkins (1995) contends that African American people have their own “folk theory of success” that may be likened to a “folk theory of coping”. He further states that:

Ogbu (1986) suggests there is another social background influence on the educational progress of Black children. He suggests that achievement for any group is to an important degree a function of those groups’ perceptions of the opportunity structure based on its history of experiences with that structure.

These experiences lead to a collection of beliefs about ‘status mobility’, about what one has to do to get ahead. He calls these community beliefs a “folk theory of success (pp. 126-127).

Aldwin (1994) argues that less attention has been paid in the coping literature to the more general ways in which culture can influence the use of coping strategies. She argues further that culture provides explanations for phenomenon such as death, life, prosperity, accidents and illness, and that these cultural explanations for the life events

guide and direct coping responses. This phenomenon can be seen in the African American community in our explanations of our history.

Aldwin (1994) states “Coping in a non-culturally prescribed manner may result in greater stress.” (p. 210), and that “bicultural individuals may develop two separate coping repertoires, depending upon the cultural context” (p. 211). She uses as an example differences in coping responses between first and second-generation international people (e.g. Japanese and Japanese Americans). Aldwin cites research that supports the finding that “coping strategies are influenced not only by cultural beliefs concerning the most appropriate means of handling specific types of problems, but also by social and cultural institutions for problem-solving and tension reduction.” (Aldwin, 1994, p. 211).

According to Aldwin (1994), the relationship between culture and individual coping is not unidirectional – rather, individual behaviors can reinforce or change existing patterns of coping. Aldwin (1994) concludes:

- (1) “culture affects individual’s coping behaviors, and coping behaviors can affect their culture.”
- (2) “Psychological research has neglected sociocultural influences on the stress and coping process.”
- (3) “Cultures do indeed influence the appraisal process, either through beliefs and values prevalent within the wider cultural setting or developed through consensual processes in more specific social situations” (p. 215).

In support of examining the role of religion and spirituality in coping and resilience Aldwin (1994) writes:

In summary, sociocultural groups appear to generate not only consensual belief systems concerning the origin and meaning of stressors, but also beliefs concerning the most appropriate means of both emotion and problem-focused coping. These beliefs may be situation specific. Further, trying to cope in ways that run contrary to the general cultural ethos may increase stress, even though those same strategies used by members of a different culture may be efficacious in reducing emotional distress. Even more rarely examined, however, are the more generalized institutions that cultures provide to individuals in order to help them cope with problems (p. 211).

Further, cultures may define certain coping behaviors as more appropriate than others, and what is deemed appropriate is not uniform within a culture but, rather, varies as a function of the individual's position in the cultural maze. Finally, the relationship between the individual and the culture is bi-directional. Not only do people cope in ways that affect other individuals, but also through the modification or development of new organizations, structures and attitudes, an individual or group of individuals may affect social change (p. 215).

Coping Among African American College Students

Coping behaviors among African American college students have been examined in the social sciences literature (see, for example, Jung & Khalsa, 1988; Nero, 1988; Oler, 1997; Rambo-Chroniak, 1999; and Turner, 1992). Evidence from this body of literature shows that religion and church involvement are significantly related to coping and adjustment processes.

Jung and Khalsa (1988) found that Black college students reported a higher frequency of hassles than their White colleagues at predominantly White institutions (PWI's). Murphy and Archer (1996) examined stressors facing African American college students at PWI's and found that the number and nature of stressors facing college students is changing and even increasing. This change has implications for doing preventive and remedial work. According to Murphy and Archer, if we identify the coping strategies being used by African American students early enough, as well as the traits that foster resilience, we may foster them in the students as a way of preventing mental illness and drop-out.

In a conceptual paper on the coping strategies of resilient African American adolescents, Turner (1992) hypothesized that African American adolescents achieve because they possess intrinsic values such as persistence and patience. She suggests that African American adolescents are socialized and taught that academic achievement is paramount. She also suggests that the coping behaviors of African American college students enable them to achieve academically and that most of these strategies are culture-specific.

Neighbors, Jackson, Bowman and Gurin (1983) conducted a study examining the role of religion in coping and found that prayer was an extremely important coping response used by African Americans, and especially among those earning less than ten thousand dollars a year, and who are above the age of fifty-five and female. They also found that an informal social network was used quite extensively as a means of coping with problems. African American people tend to use (1) the emergency room, (2) private physicians, and (3) ministers most frequently when seeking professional help.

Neville, Heppner, and Wang (1997) investigated the relationship among racial identity attitudes, perceived stressors, and coping styles in African American college students attending predominantly White institutions. They found that specific racial identity attitudes were statistically significant predictors of both general and culture-specific stressors, and that the immersion-emersion racial identity status was a unique predictor of general perceived stressors and problem solving. These results suggest the importance of racial identity as a critical factor in predicting stress and coping responses in African American students at predominantly White institutions. These results further suggest the need to assess the relationship between level of acculturation and coping in African American college students.

Logan ((1980) examined the role of the Black Baptist Church as an adaptive force among active African American church members and found that religion serves an adaptive function among African American church attendees. The Logan study also found that involvement in the Black church was an important aspect of (1) African American culture and (2) coping among African American church attendees.

Oler (1997) investigated the relationship between religious coping and psychological adjustment among African American Christians. The participants in her study consisted of church members from several urban African American churches. She found that spiritually-based coping was positively associated with self-esteem, life-satisfaction, lowered incidence of depression, and satisfaction with response to negative life-events. "Religious coping added significant variance to general ways of coping in the prediction of higher self-esteem and lower depression" (p. iii). "Spiritually-based coping was most strongly and consistently related to positive psychological adjustment and

satisfaction with how one responded to a negative event” (p. iii). Most importantly, Oler found that religious coping activities facilitate psychological adjustment “beyond the contribution of general ways of coping” (p. iii).

Giddan (1987) discusses coping and identity development in college students in general. He asserts that effective coping is part of the psychological, social, and intellectual development that occurs during late adolescence and early adulthood. Coping helps college students solve problems that are relatively difficult and challenging, or to accept unchangeable circumstances; “... to cope also means to live with discomfort or distress connected with problems that cannot be solved” (p. 34). Key coping mechanisms include access to information, task competence, use of the past, humor, predictability, control, self-observation, flexibility, and stability. Some of these coping skills and abilities are similar to the ones identified as leading to the development of resilience.

Summary

There is a need to further examine the coping behaviors of African American college students attending PWI's. Of particular interest would be the identification of culturally salient patterns of coping. This must be done using instruments that are sensitive to the different ways of coping used by this population.

Jew & Green (1998) conducted a study of the effects of risk factors on coping and resilience using a cognitive-behavioral conceptualization of resilience, and a study (Jew, Green & Kroger, 1999) on the relationship between resilience and coping among adolescents. They hypothesized in each of these studies that resilience is a belief system, and as a belief system, it is causally related to coping (i.e. coping emerges from resilience). However, no data exist to support or refute their hypothesis.

A major limitation of the Jew, Green and Kroger (1999) study was that like previous resilience research, it focused upon resilience and risk. Examining the role of protective influences and resilience as well as the role of culture in resilience and coping may extend their work.

Clearly, additional research is needed to either empirically refute or substantiate the relationship between coping and resilience hypothesized in Jew, Green & Kroger (1999).

Further, religion, core beliefs, and level of acculturation have been implicated in the review literature as being important factors in coping and adjustment behaviors among African Americans, and there is some empirical evidence supporting the notion of a relationship between resilience and spirituality (Massey, 1999). However, there is need for additional research to examine these relationships in college students.

Using a correlational design, this study will examine each of the claims above and seek to provide greater clarity to the unanswered questions.

Research Questions

The research questions that will be the focus of this study are:

- (1) Is there a statistically significant positive relationship between attitudes that reflect resilience and coping among both “at risk” and “non-at risk” African American college students?
- (2) Do core beliefs, religiosity, and spirituality moderate the relationship between attitudes that reflect resilience and coping?
- (3) Is level of acculturation related to core beliefs, religiosity, spirituality, coping responses and attitudes that reflect resilience?

- (4) Do attitudes that reflect resilience vary by class level, gender, SES, program participation, and “at risk” status?
- (5) Is the relationship between attitudes that reflect resilience and coping responses reciprocal?

CHAPTER III. METHODS

Introduction

The purposes of this study were (1) to examine the relationship between attitudes that reflect resilience and coping among at risk and non-at risk African American college students, (2) to examine the moderating role of three factors that are believed to be protective in times of stress and adversity and (3) to examine the relationship between level of acculturation and coping responses, attitudes that reflect resilience, core beliefs, religiosity, and spirituality.

This chapter will provide an overview of the research procedure and implementation, the characteristics of the population and sample, instrumentation and scale development, the research hypothesis, and a summary of the statistical tests selected for the analysis of the data.

Procedures

Several programs exist in the University that recruit and serve large numbers of students that meet the criteria for inclusion in this study (i.e., African American, both at risk and non-at risk students). These programs were primarily targeted for participants.

The investigator met with the directors of each of the targeted programs and explained the purpose of the study. Each of the program directors granted full permission to approach students for participation, and specific dates and times were arranged for data collection. Data collection occurred during regularly scheduled program meetings in which time was set aside or reserved for the actual administration of the survey packets.

The data collection sessions were kept uniform and lasted an average of forty to fifty

minutes. All survey packets were administered and collected by the investigator. Before administering the surveys, a brief introduction was given to the student participants by the director of each program. Students were informed that their participation was voluntary, and they were given the option of not participating or withdrawing their participation at any time during the study without penalty. Each survey packet had an attached consent form / instruction sheet (see Appendix E).

Student participants were instructed to read silently along with the investigator as instructions were read aloud prior to any participants filling out the packets. The consent form included the names of the investigators, the purpose for the study, notice of confidentiality, information for contacting investigators for questions, and instructions for completing the survey packets.

A \$100 raffle was included as an incentive for filling out the survey packets. Students indicated their voluntary consent to participate in the study by reading the consent form and signing their name. Students were given the option of participating or not participating in the raffle via a yes or no response to the questions “Yes, I want to participate in the \$100 Raffle” or “No, I do not want to enter the \$100 Raffle.” Students were told at the start of each data collection session that students wishing to participate in the \$100 raffle must complete all instruments in the survey packet. Participants with incomplete survey packets were not included in the raffle. Survey packets were collected upon completion, and participants were fully debriefed via group discussion as to the purpose of this study. A total of 337 survey packets were collected. However, since the focus of this study was on African American college students attending a predominantly

White institution, only data from participants who identified as African American were used. The sample size for the African American student participants was 229.

Population and Sample

Participants were drawn from the general student body and from four pre-existing programs at Michigan State University that had large populations of African American students. Participants were included in the subject pool if they were enrolled during the Spring 2001 and Summer 2001 semesters, and participated in any of the four programs. These were: (1) MAGIC, (2) SUPER, (3) McNair-SROP and (4) Sports Camp. These groups were also targeted as they contain large numbers of African American students who represent different years in college and “at risk” and “non-at risk” status. The intention was to obtain responses from all of the African-American students in those four groups, but a number of non-African-American students also responded. Because the investigator was interested in comparisons only within race, race was controlled for in this study, and only data from African American students were used in the analysis (see Ponterotto & Casas, 1991). Below, I will describe the four groups from which much of the sample was drawn.

College Achievement Admission Program (CAAP)

A portion of freshmen students are admitted into the University as CAAP students and are provided support by the Office of Supportive Services (OSS). The Office of Supportive Services (OSS) is a multifaceted holistic retention initiative designed to address the needs of CAAP students; either first generation, low income or educationally disadvantaged students. Through the collaborative efforts of MSU faculty and staff, the

Office of Supportive Services personnel implement an intensive and comprehensive university-wide service. Students have access to program services from the time they enter the university, through graduation and placement, into graduate school. The primary goal of OSS is to increase retention rates, facilitate academic successes and enhance graduation rates among program participants. The majority of CAAP students tend to be minority. However, over the years, the population has expanded to include students with disabilities, students receiving Pell Grants, and/or students who have a 2.50 or lower MSU GPA. Students who participate in these programs are eligible for academic advising, counseling, tutorial services, access to the computer lab facilities, skills enrichment courses, and graduate study planning and advising.

The Summer Research Opportunities Program and McNair Program (McNair-SROP)

The Summer Research Opportunities Program and McNair Program (McNair-SROP) are ten-week programs that coincide with Summer semester and are available to low income, first-generation and handicapped students who have achieved junior status and have a GPA of 3.0 or better. The goal of the program is to encourage enrollment in graduate and professional schools. These students are matched with a faculty member and are required to complete a research project. The student receives a stipend and the faculty member receives a research allowance that permits both to actively pursue their research. A portion of these students participated in the CAAP program, but most are non-CAAP students.

The Summer University Program Encouraging Retention (SUPER)

The Summer University Program Encouraging Retention (SUPER) is a summer bridge program for a select group of students admitted through the MSU CAAP program.

The SUPER program is designed to help underrepresented, low-income, and first-generation college students adjust to the academic and social demands of college. All SUPER students are CAAP students and are eligible for the programs described earlier.

Maximizing Academic Growth in College (MAGIC) Program

MAGIC is a pre-college program designed to provide newly admitted racial ethnic minority students with information about the University before they begin classes. MAGIC students spend one week in residence at the University before the start of their first semester. The program orients the students to the University and teaches them strategies that may help them succeed academically. All MAGIC students are freshmen and students of color.

Sports Camp Program

College students serving as Summer Sports Camp Assistants were recruited to participate in this study. The program trains upper level undergraduate students as leaders, camp counselors, and house assistants to help manage and supervise junior high and high school students that visit the campus. The majority of the Sports Camp students are upper-level college students, with few lower level students (i.e. freshmen and sophomores). The majority of the Sports Camp Assistants for the Summer 2001 were students of color.

Survey packages were completed by 337 individuals, 224 of whom were African American. Since the focus of this study was on the African-American college student population, only this sample will be further discussed.

Instrumentation

Seven instruments were used to collect data. The instruments were: (1) the COPE (Carver, Scheier & Weintraub, 1989), (2) the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990), (3) the Multidimensionality of Religiosity Scale (MRS; Levin, Taylor, & Chatters, 1995), (4) the Core Convictions Scale (CCS, developed specifically for this study), (5) the African American Acculturation Scale - Revised (AAAS-R; Klonof & Landrine, 2000), (6) the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994), and (7) a demographics questionnaire developed specifically for this study. Each scale will be discussed below and is presented in its entirety in Appendix E.

All instruments (except the Core Convictions Scale and the Demographics Survey) were selected if they met the following criterion: (1) they were empirically, theoretically, or conceptually derived with some evidence of reliability and validity, (2) they measured a belief, an attitude, or a behavior that might help explain a cognitive-behavioral conceptualization of resilience and coping among African American college students, (3) responses could be scaled to be used in correlational analysis and structural equation modeling (SEM); and (4) their instructions were easy to follow.

The COPE

The COPE (Carver, Scheier & Weintraub, 1989) in its original format, is a 60-item instrument scored on a four-point Likert-style scale where the responses were:

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

The items in the instrument are designed to assess how people generally respond when they confront difficult or stressful events in their lives. This type of coping may be considered dispositional. Participants indicate how strongly they agree with such statements as “I try to come up with a strategy about what to do” and “I restrain myself from doing anything too quickly.” Low scores on any subscale indicate a less frequently used way of coping, while high scores on a subscale indicate a more frequently used way of coping. This instrument was developed specifically to measure theoretically and conceptually distinct aspects of problem-focused, emotion-focused, and less-useful coping responses (Carver, Scheier & Weintraub, 1989).

The COPE (Carver, Scheier & Weintraub, 1989) was designed as an improvement over the Ways of Coping scale (Folkman & Lazarus, 1980). Folkman and Lazarus (1980) developed the Ways of Coping Scale to measure:

- (1) Problem focused coping - coping efforts aimed at the perceived source of stress.
- (2) Emotion-focused coping - efforts to regulate one’s emotions as a way of adapting to a stressful encounter
- (3) Less-useful coping - less useful coping strategies e.g. consume alcohol, behavioral and mental disengagement.

The COPE by Carver, Scheier, and Weintraub (1989) is based on the Ways of Coping Scale, but differs in as much as the authors claim it yields (1) five conceptually distinct aspects of problem-focused coping, (2) five conceptually distinct aspects of emotion-focused coping, (3) three conceptually distinct, less-useful coping responses, and (4) two subscales were included for research purposes by the authors. Use of the COPE may reveal a more descriptive account of coping among African American college students.

Scale Development. The scale authors used the Cognitive Appraisal Theory of Stress and Coping (Lazarus & Folkman, 1984), and a model of behavioral self-regulation posited in the work of Carver & Scheier, (1981) as guide for developing scale items. These theories are congruent with the theoretical basis of this study. The authors selected and factor analyzed scale items. The authors indicate that items with weak loadings were either revised, discarded, or new items were written. The authors administered the final version of the scale to a sample of undergraduate students at the University of Miami (n=978), and the responses were subjected to principal-components factor analysis with oblique rotation to allow for correlations among factors¹. The analysis yielded twelve factors with Eigenvalues greater than 1.0. The composition of eleven of the twelve factors was fully in accord with a priori assignment of items to subscales, with the exception of the active coping and planning items which all loaded on one factor (Carver, Scheier & Weintraub, 1989). Seeking social support for instrumental reasons and seeking social support for emotional reasons also loaded together on one factor. The alcohol and drug use, and the humor subscales were included as exploratory scales only, and were not included in the published version of the COPE. Hence, there was no internal consistency reliability or test-retest reliability data reported on these two subscales. They were however, included in the instrument used in this study for exploratory purposes. The

¹ However, they apparently did not understand that they did not need use oblique rotation to obtain correlated subscales. The method they used to create factor scores would have allowed correlations among factors without having used oblique rotation. They allowed each item to load only on a single factor rather than partitioning the response to each item to contribute to multiple factors. Only when partitioning responses to each item does one need to worry about defining the factors to be uncorrelated.

authors state that the final version of the scale contains thirteen conceptually distinct scales, with two exploratory scales for a total of fifteen.

The scales and their reported internal consistency reliabilities are:

Active coping	(.62)
Planning	(.80)
Suppression of competing activities	(.68)
Restraint coping	(.72)
Seeking social support–instrumental reasons	(.75)
Seeking social support–emotional reasons	(.85)
Positive reinterpretation and growth	(.68)
Acceptance	(.65)
Turning to religion	(.92)
Focus on and venting of emotions	(.77)
Denial	(.71)
Behavioral disengagement	(.63)
Mental disengagement	(.45)
Alcohol-drug use	(none-reported)
Humor	(none reported)

The first five subscales (i.e., active coping, planning, suppression of competing activities, restraint coping, and seeking social support – instrumental reasons) represent the five conceptually distinct aspects of problem-focused coping (Carver, Scheier & Weintraub, 1989). The next five subscales (i.e., seeking social support-emotional reasons, positive reinterpretation and growth, acceptance, turning to religion, and focus on and venting of emotions) represent the five conceptually distinct aspects of emotion-focused coping (Carver et al., 1989). Denial, behavioral disengagement, and mental disengagement represent conceptually distinct aspects of less-useful coping (Carver et al., 1989). Alcohol – drug use and humor represent the two exploratory subscales (Carver et al., 1989).

In general, the reliability values obtained by the authors in the development of this scale were acceptably high, with only one subscale (mental disengagement) falling below

.6. The test-retest reliability data on the COPE suggest that the self-report of coping strategies measured by the COPE were relatively stable: .62, active coping; .80, planning; .68, suppression of competing activities; .72, restraint coping; .75, seeking social support – instrumental; .85, seeking social support – emotional; .68, positive reinterpretation and growth; .65, acceptance; .92, turning to religion; .77, focus on and venting of emotions; .71, denial; .63, behavioral disengagement; .45, mental disengagement; and none reported for alcohol – drug use. The subscales of the COPE were not strongly intercorrelated (the sample correlations ranged from -.28 to .69, with an media value of .13. This suggests that most subscales tap fairly distinct ways of coping. Although not strongly correlated empirically, the subscales tend to be correlated conceptually (Carver et al., 1989). The COPE was also able to reveal gender differences in coping. The authors correlated the COPE with several personality measures (e.g., self-esteem, anxiety, hardiness, locus of control) and found empirical evidence for both the convergent and discriminant validity of the COPE. Finally, the authors conclude that the COPE may be used to assess both dispositional and situational types of coping.

The Religious Coping Activities Scale (RCAS)

The Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990) in its original format, is a twenty-nine item instrument scored on a four-point Likert-style scale:

- 1 = not at all
- 2 = somewhat
- 3 = quite a bit
- 4 = a great deal

Participants were asked to identify a stressful situation or dilemma and respond to items in the survey based on their handling of the situation or dilemma. This scale measures situational coping. Participants indicated how strongly they agree with such statements as “Asked God why it happened” and “My faith showed me different ways to handle the problems.” Low scores on any of the subscales indicate a less-often used, or less-preferred form of religious coping. High scores on any subscale indicate a form of religious coping that is used more often or that is more preferred.

This instrument was designed for use in conjunction with other non-religious measures of coping to enhance our understanding of coping. This instrument was used in this study because religious or spiritual coping has been identified as a preferred way of coping among African American churchgoing and Christian people (Oler, 1997). Use of this scale may result in a more complete and accurate understanding of coping among African American people who attend church and who identify as Christian. In addition, the theoretical literature on coping (not yet empirically verified) suggests that religious coping can affect the ultimate outcomes of negative events (Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990).

Scale Development. The sample upon which the authors developed this scale was intended to be representative of churchgoing people with mainstream Christian beliefs. However, the sample was 96 percent white, 66 percent female, 38 percent college educated, and 64 percent married. The RCAS was intended to measure situational religious coping. A total of 31 items were generated from the empirical literature, written personal accounts of those who turned to religion in time of stress, and interviews with

adults and clergy who report using religion in coping. The authors subjected these items to principal components factors analysis with Varimax rotation. Using a scree plot, they selected a five-factor solution that explained nearly 100 percent of the common variance in the sample. However, the rule of thumb used by the authors to determine the number of factors was not stated. A sixth factor (religious avoidance) was created from two of the original 31 items that did not load on any of the previous five factors, with an additional theoretically salient item being added.

The six resulting factors and their reported internal consistency reliabilities were:

(1) Spiritually based	(.92)
(2) Good deeds	(.82)
(3) Discontent	(.68)
(4) Religious support	(.78)
(5) Plead[ing]	(.61)
(6) Religious avoidance	(.61)

Findings from the validity and reliability studies on this scale suggest an important role of religious beliefs, practices, and motivations among persons who are religiously involved or who identify as spiritual. Like general coping, research shows that religious coping is multidimensional (Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990).

The Resiliency Attitudes Scale (RAS)

The Resiliency Attitudes Scale (RAS), (Biscoe & Harris, 1994) is currently under development and is being piloted on an African American college student population via this study. In its original format, it is a 72-item instrument scored on a five-point Likert-style scale with responses ranging from “Strongly disagree” to “Strongly agree.” Half of the items must be reverse-coded before scoring. The RAS yields seven subscales: (1)

insight, (2) independence, (3) relationships, (4) initiative, (5) creativity / humor, (6) morality, and (7) general resilience. Examples of items from the general resilience subscale of the RAS include “No matter what happens, if I keep trying I’ll get through it” and “Even if bad things happen, I can deal with them.” Participants indicate how strongly they agree with items in the subscales. Low scores on a subscale indicate a low level of that resiliency, and a high score on a subscale indicates a high level of that resiliency. The RAS also gives a composite resiliency score (i.e., the Total Resiliency Score is the sum of items 1-72).

Scale development. The first six subscales identified in the RAS were developed based on the conceptualization of resilience posited in the work of Wolin & Wolin (1993). Biscoe & Harris (1994) added the general resilience subscale, and defined it as a belief that one can survive and make things better (Biscoe & Harris, 1994, p.1). These beliefs fuel persistence in working through difficulties. There were no internal consistency or test-retest reliability studies reported for individual subscales, since this instrument is still under development. However, the internal consistency reliability of all items taken together was .87 (Kelso, 1999). Kelso also found that the subscales were moderately correlated with each other ($r = .49$ to $.69$). To date, the items have not yet been subjected to any kind of rigorous scaling. Kelso provided some divergent validity evidence in that the RAS was negatively correlated with the Beck Depression Inventory (BDI). In spite of Kelso’s claim that the RAS was “theory driven, using Wolin and Wolin’s conceptualization of resiliency” (p.14), a review of the work by Wolin and Wolin (1993) did not reveal a reasonably developed theory. Their conceptualization of

resiliency was apparently derived from anecdotal evidence gathered in interviews with their clients. No evidence of a rigorous data collection method was found in their work.

The RAS instrument was used in this study for four main reasons: (1) it attempts to quantify attitudes that reflect resiliency, (2) it gives a measure of general resiliency attitudes, (2) there is a need to further assess the validity and reliability of the RAS scale, and (3) to help answer the questions – is there a relationship between attitudes that reflect resilience and coping, and is the relationship between attitudes that reflect resilience and coping a linear causal relationship?

Multidimensionality of Religiosity Scale (MRS)

The Multidimensionality of Religiosity Scale (MRS; Levin, Taylor & Chatters, 1995) in its original format is a twelve-item instrument designed to assess different aspects of religiosity. Participants indicate the frequency with which they engage in specific religious behaviors, the importance of religion in their lives, as well as the extent of their religiosity. Items include such statements as “How often do you pray”, and “How religious would you say are you.” The internal consistency reliability for this scale was not reported in the published version of the instrument. However, the authors indicate that the scale is a reliable and valid multidimensional measure of religiosity.

An additional four items were added to this scale to expand it as a measure of spirituality. Examples of these items include “How spiritual would you say you are”, and “How important is your spirituality to you.” The revised scale was piloted on an African American population of church-attendees in a study by Martin (2001) and was found to be a reliable and valid measure of religiosity and spirituality.

Only three items were selected from this instrument for use in the actual analysis of data, since they were most relevant to the research questions. These items were combined with the items from the Core Convictions Scale and the reliability and validity were examined. Items selected made conceptual sense to use in this study. The three items included “(10.) How religious would you say you are”, “(13.) How spiritual would you say you are”, and “(14.) How important is your spirituality to you.” These three items were chosen because they represent a general measure of spirituality and religiosity.

Core Convictions Scale (CCS)

The Core Convictions Scale was developed specifically for this study and is based on the work of Cooper-Lewter and Mitchell (1996). It is a ten-item instrument containing statements designed to represent beliefs held by African Americans. Participants indicate the extent to which they agree or disagree with a belief on a four-point Likert-style scale for each statement. The instrument is expected to yield a single score. A high score suggests a strong adherence to this set of convictions. A low score suggests a less intense adherence or belief in this set of convictions. Items include such statements as “God works everything out for my good” and “Despite any differences, we are all related or connected in some way – all of us are brothers and sisters.”

This study was a pilot of this instrument, and the results are discussed in the results section.

The African American Acculturation Scale - Revised (AAAS-R)

The African American Acculturation Scale – Revised (AAAS-R; Klonof & Landrine, 2000) in its original format is a 47-item inventory designed to measure the

extent of one's orientation towards eight theoretically derived dimensions of African American culture. These dimensions include (1) Religious Beliefs and Practices, (2) Preferences for African American Things, (3) Interracial Attitudes, (4) Family Practices, (5) Health Beliefs and Practices, (6) Cultural Superstitions, (7) Racial Segregation, and (8) Family Values.

This instrument yields eight subscale scores and one composite score. The development of this instrument was based upon findings from studies that indicated levels of adjustment in a majority-centered society is a major feature of the phenomenon we call acculturation. High scores on the instrument indicate a high agreement with scale items, and reflect a close identification with those things that may be considered uniquely African American (i.e., a traditional African American cultural orientation). Low scores indicate disagreement with items, and reflect a low identification with those things that are considered traditionally or uniquely African American (i.e., an acculturated orientation). Participants indicate the degree to which they agree or disagree with each item based on a seven-point Likert-style scale. Items include such statements as "I like gospel music", "When I was young, I was a member of a Black church", "I don't trust most White people", and "Most Whites are afraid of Blacks." The internal consistency reliability of this entire scale was reported as .97 (Klonof and Landrine, 2000), but no reliability or validity data was reported for the individual subscales.

Demographics Questionnaire

The Demographics Questionnaire, developed for this study, solicited data on the age, gender, race/ethnicity, class level, grade point average, ACT score, parent's income,

type of home, type of high school attended, religious orientation, and reason for coming to MSU.

Research Hypotheses

- (1) There is a statistically significant positive relationship between attitudes that reflect resilience and coping among both “at risk” and “non-at risk” African American college students.
- (2) Core beliefs, religiosity, and spirituality moderate the relationship between attitudes that reflect resilience and coping responses.
- (3) Level of acculturation is related to coping responses, attitudes that reflect resilience, core beliefs, religiosity and spirituality.
- (4) Attitudes that reflect resilience vary by class level, gender, SES, program participation, and “at risk” status.
- (5) The relationship between attitudes that reflect resilience and coping responses is reciprocal.

Statistical Methods Used to Analyze the Data

The statistical methods used for scaling the data from each instrument were Principal Components Exploratory Factor Analysis, and Confirmatory Factor Analysis (Bryant & Yarnold, 1995); and classical test theory reliability analysis (Crocker & Algina, 1986). AMOS (Version 4.0 WIN95/98/NT, SPSS Inc) was used for the Confirmatory Factor Analysis, and SPSS (Version 10.0, SPSS Inc) was used for the Exploratory Factor Analysis and the reliability analysis.

The statistical methods used for modeling the resulting scaled data were Path Analysis (Klem, 1995) and Structural Equation Modeling (Kline, 1998). Both the Path Analysis and Structural Equation Modeling were carried out using AMOS.

CHAPTER IV. ANALYSIS OF DATA

The purposes of this study were to examine the relationship between attitudes that reflect resilience and coping among African American college students, to examine the moderating role of three possible protective factors, and to examine the relationship between level of acculturation and coping responses, attitudes that reflect resilience, core beliefs, religiosity and spirituality. This chapter describes the analysis of data collected from a demographics questionnaire, the COPE (Carver, Scheier & Weintraub, 1989), the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990), the Multidimensionality of Religiosity Scale (MRS; Levin, Taylor & Chatter, 1995), the Core Convictions Scale (CCS; developed specifically for this study), the African American Acculturation Scale-Revised (AAAS-R; Klonof & Landrine, 2000) and the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994).

The data were analyzed in the following manner:

- (1) The demographic data was analyzed in order to generate descriptive statistics for the sample used in the structural equation modeling and in developing the path models.
- (2) All scales (except the Multidimensionality of Religiosity Scale – MRS, and the Demographics form) were subjected to Principal Components Exploratory Factor Analysis for the purposes of scale development and having adequate measures to use in building the models. The internal consistency reliability and the test-retest reliability were calculated for the Core Convictions Scale.

(3) Structural Equation Modeling and Path Analysis were used to generate the final models of fit.

Descriptive Statistics

Descriptive statistics of the demographic characteristics of the complete sample (N=224) and the final sample (the complete sample minus any participants with missing data; N=190) were calculated. Descriptive statistics of all variables included in the model were also calculated. To account for differences in the data of students who had complete data and those with missing data, these statistics were calculated separately for each group of students and compared.

Instrument Scaling

From the descriptions of the scales with already described factor structures (COPE, RAS, and BAS), it appeared that the scales had been adequately analyzed using Exploratory Factor Analysis (EFA). An attempt was made to perform Confirmatory Factor Analysis (CFA) on the COPE using the already described factor structures. In this case, the CFA statistical procedure was unable to converge. The description of the scale was scrutinized further, and it was determined that parts of the scale (Humor and Alcohol/drug use) were experimental additions to the scale, and had never been subjected to EFA. The description of the EFA was further scrutinized, and it was found that for determining the number of factors in the scale, the authors had used a rule of thumb that is no longer considered adequate. That is, they cut the number of factors at the number of Eigenvalues greater than 1. The more accepted method is to examine a Scree plot for noticeable drops and subsequent leveling.

In all cases, it was determined that the pre-described factor structure did not fit this sample of data. The factor descriptions were either inconsistent with this population, an out-of-date rule of thumb was used, or there had been no empirical basis for describing the factor structure. For this reason, attempts at CFA were aborted, and all instruments were subjected to principal components EFA with Varimax rotation to provide a more adequate scaling of each instrument².

Model development

When the scales were adequately developed, Structural Equation Modeling (SEM) was used to assess the adequacy of competing models of the data, and to modify the models to more accurately fit the data. To do this, each competing model was created and various measures of fit and specific model inadequacies were obtained. Using this

² In EFA, there are multiple ways to create factor scores. Each item can load on more than one factor, since responses to each item can be dependent on more than one single construct. Factor scores can be created that allow for each item to load on multiple factors. Another method of creating factor scores is to assume that each item informs only the factor on which it loads most heavily. In all cases, the authors of the scales adopted for this study used the second approach. One advantage of the first approach is that there is a slightly more accurate representation of each factor. A disadvantage is in the difficulty of creating the factor scores and understanding the meaning, since the score on each item must be distributed across multiple factors. Another disadvantage is that in using orthogonal rotations, factor scores obtained in this way will be uncorrelated with each other by definition. Often, this result makes no theoretical sense. The advantage of the second approach is that each item's score does not need to be divided between different factors, and that the resulting factor scores obtained from an orthogonal EFA may be correlated with each other. The disadvantage is that the representation of the factors is slightly less accurate. The second method was chosen for all scales for the reasons described in the Results section. The resulting scales and subscales were then assessed for reliability.

information, the models were adjusted to better fit the data. To account for differences in the total sample and the sample of students with complete data, the model was estimated using data from all participants, and data only from participants with complete data. This was possible because SEM analyzes correlation matrices, either listwise or pairwise.

Listwise correlation matrices are matrices of correlations calculated using only the data from students who had complete data. Pairwise correlation matrices use all available data to calculate the correlations between each pair of variables. The advantage of pairwise correlation matrices is that the correlations in the matrices are more representative of the population being sampled. The advantage of listwise matrices is that estimation is always statistically possible when there is no strong multicollinearity of predictors in the model.

The initial models were quite complex because of the large number of outcomes and predictors, as well as interaction terms included. The models were reduced by removing non-significant interaction terms; removing non-significant main effects; and adding correlations between predictors that were not expected to be causally related, and outcomes that were not expected to be causally related. Finally, the discrepancy between the observed correlations between variables included in the model, and the correlation matrix implied among those variables by the structure of the model were investigated. Residual correlation with a magnitude larger than 0.10 were investigated to determine whether adding an additional relationship to the model would improve model fit.

The competing models were then scrutinized to determine which was the best fit to the data. Various measures of fit, measures of direct, indirect, and total relationships between predictors and outcomes, and measures of proportion of variance explained in each outcome were also obtained to evaluate the adequacy of the best-fitting model(s).

Summary

The methods used to test the hypothesis in this study were path analysis and Structural Equation Modeling. The level of significance chosen for all methods of testing was .05.

The data were analyzed in the following manner:

1. Descriptive statistics for the sample were generated.
2. Instruments were scaled and developed using Exploratory Factor Analysis (EFA).
3. Final models were developed using Structural Equation Modeling (for the reciprocal model) and Path Analysis (for the unidirectional models).

CHAPTER V. RESULTS

Descriptive Statistics of Control Variables

The samples (pairwise, N=224 and listwise, N=190) were described on each important variable and were inspected listwise and pairwise for differences. Table 1 is a description of the total sample of African American students who participated in this study, and it contains a description of the continuous control variables for the complete sample³. Table 2 is a description of the final sample of African American students with complete data.

³ Note that some of the variables in the full sample table are not in the final sample table. This was because they were excluded from the model. Age was excluded because it was highly correlated with class standing, which was a better control variable. Self-reported family income, self-reported GPA, and self-reported ACT were excluded from the model because they were self-reported by the students, and probably unreliable. For example, a number of participants identified as CAAP students reported very high GPAs, incomes, and ACT scores. Although these could have been important control variables, because they were not deemed reliable, any impact they had on the model could not be considered an effect of controlling for these variables.

Table 1. Complete sample (N=224) frequencies of categorical variables.

Variable	Category	N	%	Variable	Category	N	%
Age	17	58	25.9	Class standing	Freshman	133	59.4
	18	80	35.7		Sophomore	12	5.4
	19	12	5.4		Junior	22	9.8
	20	29	12.9		Senior	53	23.7
	21	23	10.3		Missing	4	1.8
	22	13	5.8	Religious affiliation	Protestant	193	86.2
	23	4	1.8		Catholic	20	8.9
	24	1	0.4		Muslim	1	0.4
	25	1	0.4		Missing	10	4.5
	26	1	0.4	Sex	Male	73	32.6
	29	1	0.4		Female	151	67.4
	35	1	0.4	Program	Regular	13	5.8
	<u>Mean</u>	<u>18.92</u>			Sports camp	37	16.5
	<u>SD</u>	<u>2.19</u>			McNair-SROP	40	17.9
	1: Under \$10,000	12	5.4		SUPER	20	8.9
	2: \$10,000 - \$20,000	18	8		MAGIC	114	50.9
Self-reported family income	3: \$20,000 - \$30,000	26	11.6	Student is at risk	No	100	44.6
	4: \$30,000 - \$40,000	23	10.3		Yes	120	53.6
	5: \$40,000 - \$50,000	17	7.6		Missing	4	1.8
	6: \$50,000 - \$60,000	9	4	Home environment	Single parent	102	45.5
	7: \$60,000 - \$70,000	10	4.5		Two parent	113	50.4
	8: \$70,000 - \$80,000	8	3.6		Other relative	9	4
	9: \$80,000 - \$100,000	15	6.7	Self-reported ACT	N	194	
	10: \$100,000 +	16	7.1		Mean	19.8	
	Missing/don't know	70	31.3		SD	3.3	
	<u>Mean = 5.1 (approximately \$41,000)</u>				Min	13	
	<u>SD = 2.83 (approximately \$28,300)</u>				Max	29	
				Self-reported GPA	N	207	
					Mean	2.8	
					SD	0.5	
					Min	2	
					Max	4	

Table 2. Final sample (N=190) frequencies of categorical variables.

Variable	Category	N	%	Variable	Category	N	%
Program	Regular	13	6.8	Class standing	Freshman	110	57.9
	Sports camp	31	16.3		Sophomore	11	5.8
	McNair-SROP	36	18.9		Junior	19	10.0
	SUPER	17	8.9		Senior	50	26.3
	MAGIC	93	48.9	Religious affiliation	Catholic	18	9.5
Home environment	Non-traditional	98	51.6		Protestant	172	90.5
	Traditional	92	48.4	Student is part of CAAP	No	91	47.9
Sex	Male	63	33.2		Yes	99	52.1
	Female	127	66.8				

As can be seen in Table 1, more than half of the participants (59.4%) were freshman, 5.4 percent were sophomore, 9.8 percent were junior, and approximately one

fourth (23.7%) were seniors. The percentage by class level did not change appreciably in the final sample (the largest change in percentage for any class level was 2.6, for seniors).

In the complete sample, 45.5 percent of the participants reported coming from a single parent home; 50.4 percent were from a two-parent home. Just over half of the participants in the total sample that completed surveys were MAGIC students (50.9%). 53.6 percent of the total sample was made up of participants in the CAAP program. Again, these percentages did not change appreciably from the complete to the final sample.

The ratio of males to females in the total sample was two females (67.4%) for every one male (32.6%). Again, the percentages changed only slightly in the final sample. As for religion, most participants (86.2%) identified as Protestant. In the final sample, 90.5 percent of the participants identified as Protestant. Participants with missing data were not included in the final sample.

The breakdown for CAAP participation by program is reported in Table 3. Because of the small numbers in some of the programs, CAAP participation, rather than program membership (e.g., MAGIC, SUPER, etc.) was used as a control in the models.

Table 3. CAAP by program participation frequencies.

Type of student	Program				
	Regular	Sports camp	McNair-SROP	SUPER	MAGIC
Non-CAAP	8	19	33	0	39
CAAP	5	18	7	20	71
Total N	13	37	40	20	110

Instrument Scaling (Exploratory Factor Analysis)

COPE

All 60 items of the COPE were subjected to principal components EFA. Since the authors Carver, Scheier and Weintraub (1989), had originally used an oblique rotation, the COPE was analyzed using both an orthogonal and oblique rotation. In addition, the EFAs were estimated using both listwise and pairwise correlation matrices. The scree plots of the orthogonal rotated EFA are presented in Figure 1. The listwise and pairwise scree plots from the oblique solutions are not presented because they did not differ in any important way.

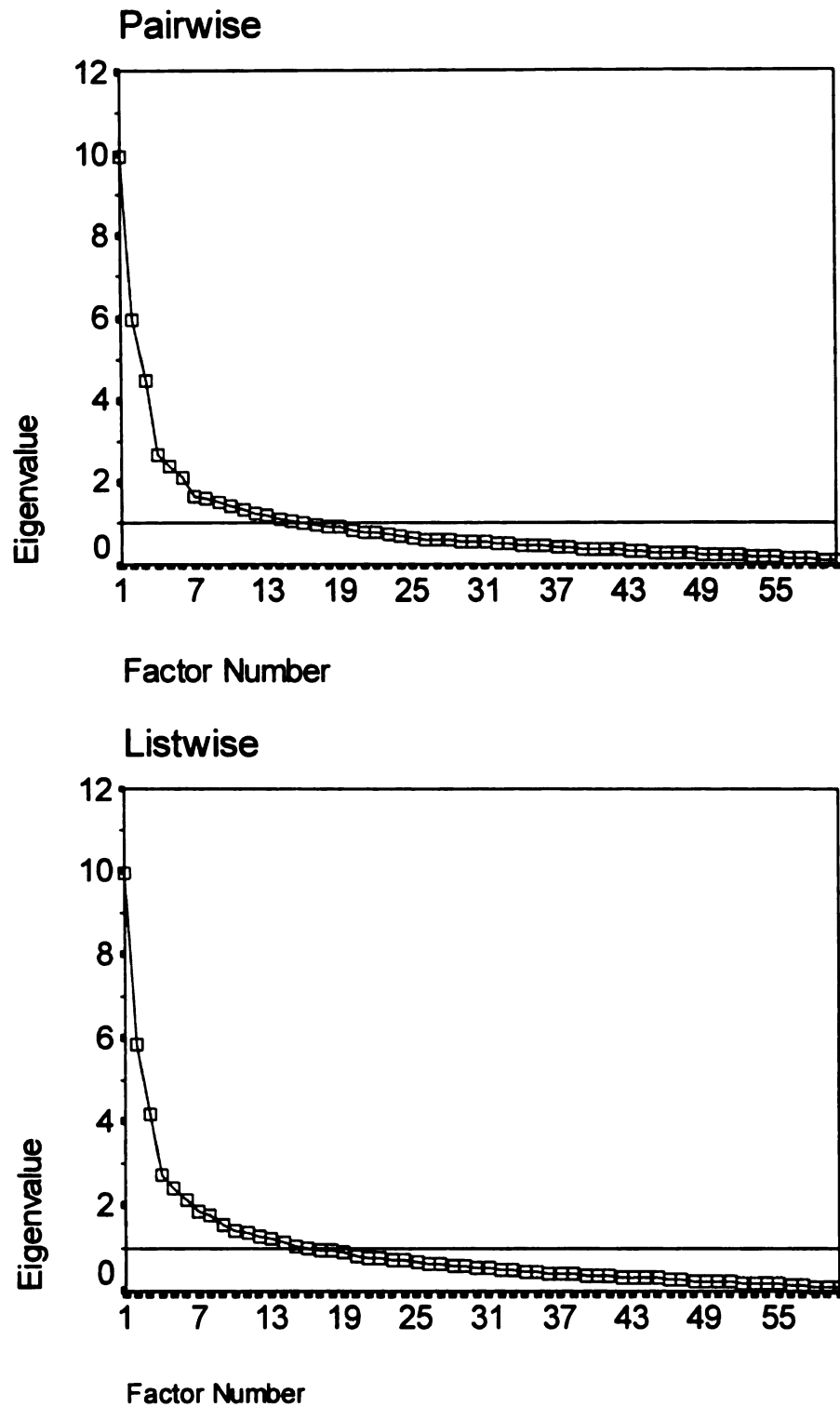


Figure 1. Scree plots of the COPE orthogonal EFA.

As noted earlier, the preferred method of determining the number of factors represented in an instrument is to look for noticeable drops and a subsequent leveling of

the plot. Figure 1 shows that there are two reasonable cutoffs in these plots. The most obvious is to cut the number of factors at three. Less obvious, but still reasonable is to set the cutoff at six. This is especially noticeable in the pairwise plot. These results differed from the results of the scale authors because of the difference in the rule of thumb used for determining the number of factors. Figure 1 has a horizontal line placed across the graphs to denote the cutoff used by the authors. Using this cutoff, the number of factors extracted would be 16 (one higher than the authors). Note that moving the cutoff point by a very small value (e.g. 0.1) the number of factors increases or decreases by 2 to 3. This suggests that the rule of thumb used by the authors is sensitive to random variations in error. Also note that around this cutoff, there are no noticeable drops with subsequent leveling.

To determine which was the more reasonable cutoff, both a 3-factor and a 6-factor solution were obtained for both the orthogonal and oblique rotations. These four solutions were scrutinized for conceptual fit. For both the orthogonal and oblique rotations, items that loaded on factors in the 3-factor solutions were not linked conceptually. In these solutions, both the adaptive and non-adaptive coping responses loaded on the first factor, and their factor loadings were all positive, where we would have expected positive loadings for adaptive strategies, and negative loadings for non-adaptive strategies. For the 6-factor solutions, there were no substantive differences between the orthogonal and oblique results. The orthogonal solution was chosen for two reasons: (1) orthogonal EFA is a less complex process, and (2) the factor loadings of many factors more closely mirrored those reported by the scale authors.

For several reasons, it was determined that each item should load on only a single factor. First, there were relatively few items that had high cross loadings on multiple factors. Second, a number of items with relatively strong cross loadings made no conceptual sense with any factor, and including them in any of the factors actually decreased the reliability of the factor scores. Those items were dropped from the scales. Third, even the items with relatively high cross-loadings that did make sense conceptually fit better with the other items in the factor on which it loaded most heavily. Fourth, allowing each item to load only on one factor allows the resulting factor scores to be intercorrelated. Finally, not partitioning each item's scores among multiple factors facilitates understanding of the scale. Appendix A presents a complete factor-loading matrix, the labels given to each factor, and the content of each item that loaded on each factor.

To create the factor scores without losing data because a participant skipped a small number of items, averaging the responses to each item in each subscale created factor scores. If participants responded to at least half of the items in a subscale, their averaged score was kept in the data set. If they responded to less than half the items, it was determined that their responses were inadequate to represent the construct being measured by the subscale, and their scores on that subscale were removed from the database. The same strategy for creating factor scores on this scale was followed for each factor created using all other scales. The descriptive statistics, internal consistency reliabilities, and correlations among the six factors are presented in Table 4.

Table 4. Correlations among and descriptive statistics of the six COPE subscales.

COPE factor	Correlation with					Descriptive statistics					
	1	2	3	4	5	N	Min	Max	Mean	SD	Reliability
1 Adaptive						224	1.33	3.86	2.83	0.5	0.89
2 Less useful	-0.17**					224	1	3.77	1.53	0.5	0.85
3 Help-seeking	0.33**	0.06				224	1	4	2.74	0.7	0.83
4 Humor	0.18**	0.21**	-0.07			224	1	4	2.31	0.9	0.89
5 Religious	0.34**	-0.26**	0.20**	-0.04		224	1	4	3.28	0.8	0.84
6 Acceptance/restraint	0.41**	-0.07	0.07	0.13	0.15*	224	1	4	2.73	0.7	0.71

* p < 0.05

** p < 0.01

As shown in Table 4, the correlations not marked by an asterisk (*) or a double asterisk (**) may not truly exist between the subscales in this population. As shown, each subscale has adequate reliability, and the subscales are uncorrelated to moderately correlated. This provides evidence that distinct but related sets of coping responses are being measured by each set of items. In addition, Less-useful Coping Responses had the lowest mean, and Religious Coping Responses had the highest. This indicates that in this sample, Religious Coping Responses were the most highly used, and Less-useful Coping Responses were the least used. Again, this pattern was expected in this sample, since the literature suggests that religious coping responses are a salient coping strategy used by church-going African Americans (Oler, 1997).

Each correlation in Table 4 can be explained conceptually. The most striking result is the expected correlations between adaptive and the other coping methods (the first column of numbers). They are all significant, and they are all in the expected direction. Adaptive coping responses are negatively correlated with less-useful coping responses, but positively correlated with all others. It is to be expected that adaptive and non-adaptive responses would be negatively related, and that all other coping responses

would be positively related to adaptive responses, since they are not necessarily maladaptive approaches to coping.

The second column of numbers also makes sense conceptually. There is no reason to expect that Less-useful coping would be related to Help-seeking or Acceptance/restraint in any particular way, and this was demonstrated in the results. However, students who tended to use Less-useful coping responses also tended to use Humor coping responses more often than others. Although Humor is not necessarily a maladaptive coping response, it can be used maladaptively (e.g. “blowing off” the problems rather than addressing them). Finally, students who tended to use Less-useful coping responses also tended to use less Religious coping responses. Because of the conflict between religious belief and many of the Less-useful coping responses (i.e., alcohol/drug use), this negative relationship is to be expected.

The third column is also conceptually consistent. There is no reason to believe that a Help-seeking person would be more likely to use Humor or Acceptance/restraint responses than any other, and this was borne out in the results. However, Help-seeking students tended to use more Religious coping responses. It could be said that some of the Religious coping responses (e.g. praying more than usual, trusting in God, seeking God’s help) might be another form of Help-seeking.

The fourth and fifth columns are also conceptually consistent. While it may be expected that people who use Humor coping responses would also be more accepting of the situation, this relationship is tenuous since Humor may also be an avoidance mechanism. The relationship between these two coping responses in the table was close to significance, but was not flagged as reliable (or statistically significant). There was no

reason to believe that people who use humor would also be more religious in their coping responses, and this was also borne out. Finally, it would be expected that people who had more Religious coping responses would also be more accepting of the situation, given the importance of faith that God will address the situation in Religious coping. See Table 12 in Appendix A for the factor-loading matrix for the COPE.

RCAS

The RCAS data was also analyzed using principal components EFA with Varimax rotation. Again, both listwise and pairwise correlation matrices were analyzed, but the results were again nearly identical. The same method as for the COPE was used for determining the number of factors. Figure 2 shows the scree plot for this analysis.

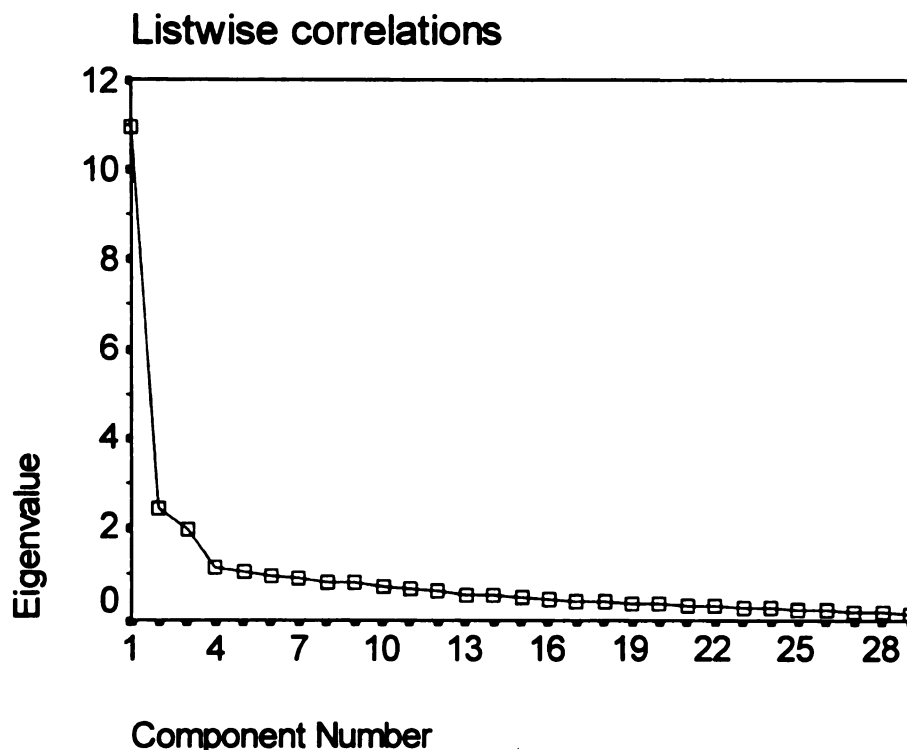


Figure 2. Scree plot of the RCAS EFA.

It was determined that three factors were being measured by the RCAS. Although the scree plot shows a single very strong factor, the two minor factors explain relatively

important variation in the responses, and they made sense conceptually. The complete factor loading matrix and description of the factors and item contents are presented in Appendix B. Because of high cross-loadings and conceptual misfit, one item was removed from the analysis.

Factor scores were created in the same way as with the COPE to avoid problems of missing data. Correlations among the three factors, their reliabilities, and descriptive statistics are presented in Table 5.

Table 5. Correlations among and descriptive statistics of the three RCAS subscales.

RCAS factor	Correlation with		Descriptive statistics					
	1	2	N	Min	Max	Mean	SD	Reliability
1 Spiritual CR			220	1	4	3.03	0.77	0.93
2 Applied Faith CR	0.69**		220	1	4	2.36	0.78	0.88
3 Despair/doubt CR	0.14*	0.20**	220	1	3.67	1.94	0.59	0.60

* $p < 0.05$

** $p < 0.01$

As shown, two of the subscales in this three-factor solution have adequate reliability. The reliability for the Despair/doubt subscale is borderline acceptable. The subscales are correlated as expected, with the correlations for Despair/doubt Coping Responses having the lowest correlations with other factors. The scale and item means indicate that Spiritual Coping Responses are most often used for coping and Despair/doubt Coping Responses are least used for coping. The pattern fit conceptually with the idea that Religious coping responses are salient among the African American culture (Oler, 1997).

Again, each correlation in Table 5 can be explained conceptually. Spiritual Coping Responses have a strong positive correlation with Applied Faith Coping Responses. This would be reasonable as Spiritual Coping Responses and Applied Faith

Coping Responses are closely related, but there is a conceptual difference between the two that is born out in the correlation that does not suggest that these are exactly the same. Both Spiritual Coping Responses and Applied Faith Coping Responses have small but significant relationships with Despair/doubt Coping Responses and Spiritual Coping Responses. This correlation would be expected as items on the Despair/doubt Coping Responses subscale represent spirituality and faith that is in doubt. It is to be expected that there must be a certain level of spirituality and faith for those things to be challenged. See Table 13 in Appendix B for the factor-loading matrix for the RCAS.

Combining the COPE and the RCAS

Because one section of the COPE is directed toward religious coping responses, and the purpose of the RCAS is to add information to general measures of coping (Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990), items from the COPE and RCAS were analyzed together to create a single multidimensional scale of coping responses. The 56 remaining items from the COPE (four item were removed from the analysis and described above) and the remaining 28 items from the RCAS were submitted together to a principal components factor analysis with Varimax rotation. The scree plots of this analysis are presented in Figure 3.

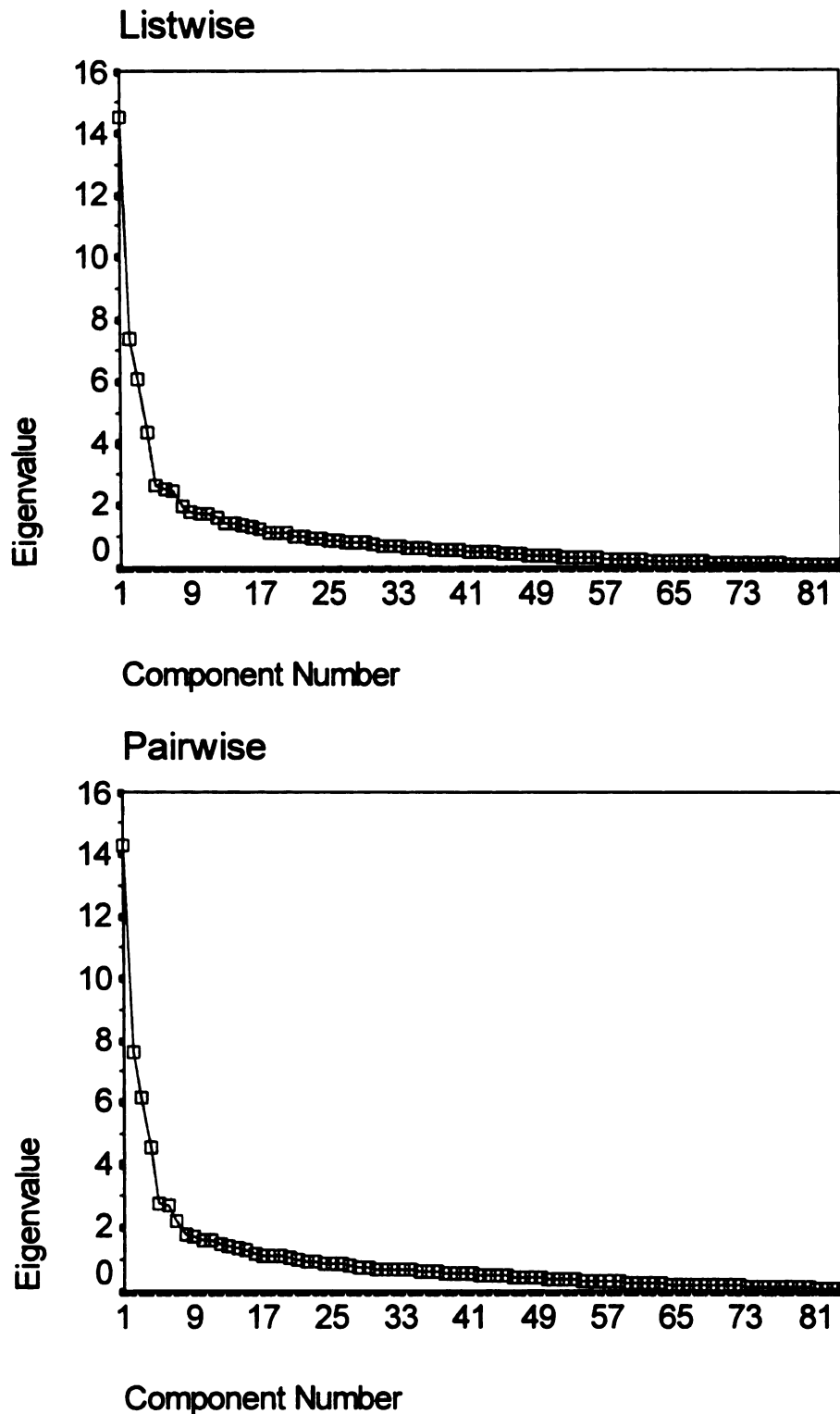


Figure 3. Scree plots from the COPE and RCAS combined EFA.

From the scree plots, it appears that the most reasonable solutions would be solutions with 4, 6, and 7 factors. These solutions were all investigated, and it was

determined that the seven-factor solution made the most sense conceptually, so it was accepted as the best solution. Again, because of relatively little cross-loading, each item was allowed to load on only one factor. The complete table of factor loadings, and the factor contents are presented in Appendix C. Correlations among the three factors, their reliabilities, and descriptive statistics are presented in Table 6.

Table 6. Descriptives, reliabilities and intercorrelations among combined COPE and RCAS factors.

Factor	Correlation with						Descriptive statistics					
	1	2	3	4	5	6	N	Min	Max	Mean	SD	Reliability
1 Spiritual CR							220	1	4	3.00	0.72	0.94
2 Adaptive CR	0.30**						228	1.29	3.75	2.82	0.47	0.90
3 Non-adaptive CR	-0.06	-0.20**					228	1	3.89	1.40	0.50	0.84
4 Emotional CR	0.11	0.32**	0.04				228	1	4	2.74	0.66	0.85
5 Humor CR	-0.02	0.19**	0.19**	-0.07			228	1	4	2.31	0.87	0.89
6 Applied Faith CR	0.63**	0.19**	0.09	0.14*	0.06		220	1	4	2.17	0.89	0.85
7 Despair/doubt CR	0.02	-0.08	0.40**	0.18**	0.13*	0.04	222	1	3.63	1.86	0.50	0.61

* $p < 0.05$

** $p < 0.01$

As shown in Table 6, the correlations not marked by an asterisk (*) or a double asterisk (**) may not truly exist between the subscales in this population. As shown, most subscales have adequate reliability, and the subscales are uncorrelated to strongly correlated. The only concern is the Despair/doubt Coping Response scale which has a borderline reliability. It may be necessary to add conceptually consistent items to this scale, and refine the existing items to more adequately measure this construct.

This provides evidence that distinct but related sets of coping responses are being measured by each set of items. Again, the pattern of means is consistent with theory (Oler, 1997). Spiritual Coping Responses are used most often, and Non-adaptive and Despair/doubt Coping Responses are used least often.

Each correlation in Table 6 can be explained conceptually. As in the COPE principal component EFA, the most striking result is the expected correlation between

Adaptive and the other coping methods, with the exception of Despair/doubt Coping Responses (see second column). Each correlation is significant and in the expected direction. The first column of numbers can be linked conceptually. Spiritual Coping Responses have a small but significant correlation with Adaptive Coping Responses as expected. They also have a strong significant correlation with Applied Faith Coping Responses as expected. There is no reason to believe that Spiritual Coping Responses would be related to Non-adaptive Coping Responses, Humor Coping Responses, or Despair/doubt Coping Responses. Also, the items that loaded on Emotional Coping Responses focus on human emotional responses to stress, which are very different from Spiritual coping responses. Hence, one would not expect a relationship between these two subscales.

The second column of numbers also can be linked together conceptually. Students that had more Adaptive Coping Responses tended to have less Non-adaptive Coping Responses. Students that had Adaptive Coping Responses tended to have more Emotional Coping Responses, Humor Coping Responses, and Applied Faith Coping Responses. These other Coping Responses can be used in a positive or negative way, and it is expected that students that had Adaptive Coping Responses will have a range of coping responses that they use in positive ways. Finally, knowing a student's tendency to use Adaptive Coping Responses does not inform how likely it is that that student will also have Despair/doubt Coping Responses. This may be because the Despair/doubt scale is composed of competing constructs, where despair and doubt are related, but distinct constructs, and there was insufficient data to tease them apart in this analysis.

The third column is also conceptually consistent. Students that had Non-adaptive Coping Responses tended to have both Despair/doubt and Humor Coping Responses, but the tendency is stronger for Despair/doubt Coping Responses. Students that had Non-adaptive Coping Responses tended not to have Emotional Coping Responses, or Applied Faith Coping Responses any more than any other student.

The items in column four may be linked conceptually. Students that had Emotional Coping Responses tended to have more Applied Faith Coping Responses, and more Despair/doubt Coping Responses. This is consistent because important components of Applied Faith Coping Responses and Despair/doubt Coping Responses can be considered to be highly emotional. However, students that had Emotional Coping Responses tended not to use Humor Coping Responses any more than other students. Although aspects of Humor Coping Responses can be considered to be emotional, the items that measured Humor Coping Responses were qualitatively different from those measured by Emotional Coping Responses. The “Humor” items were more dismissive of the stressor, but the “Emotional” items were more indicative of a response focused on processing the challenge.

Columns 5 and 6 also fit together conceptually. In these columns the only significant relationship was between Humor Coping Responses and Despair/doubt Coping Responses. Items from both of these factors indicate a dismissive response to the challenge of coping. Humor Coping Responses and Applied Faith Coping Responses had no relationship, nor did Applied Faith Coping Responses and Despair/doubt Coping Responses. Again, there is no reason to expect that those who applied faith in coping

would use more or less Humor or Despair/doubt than others—especially since those who applied their faith would be less likely to despair or to doubt God.

Finally, note that combining the COPE and RCAS caused some of the items to move from different factors into a combined or related factor when moving from the individual scales to the combined scale, but the substantive meaning of each factor was maintained. This also provides some evidence that the combined subscale is a valid measure of multiple coping responses. See Table 14 in Appendix C for the complete combined COPE and RCAS EFA factor-loading matrix.

CCS, Religiosity, and Spirituality

The Core Convictions Scale (CCS) data from the 224 African American students was subjected to EFA. The resulting scree plot is shown in Figure 4. Because of the similarity between the pairwise and listwise results, only one graph is shown.

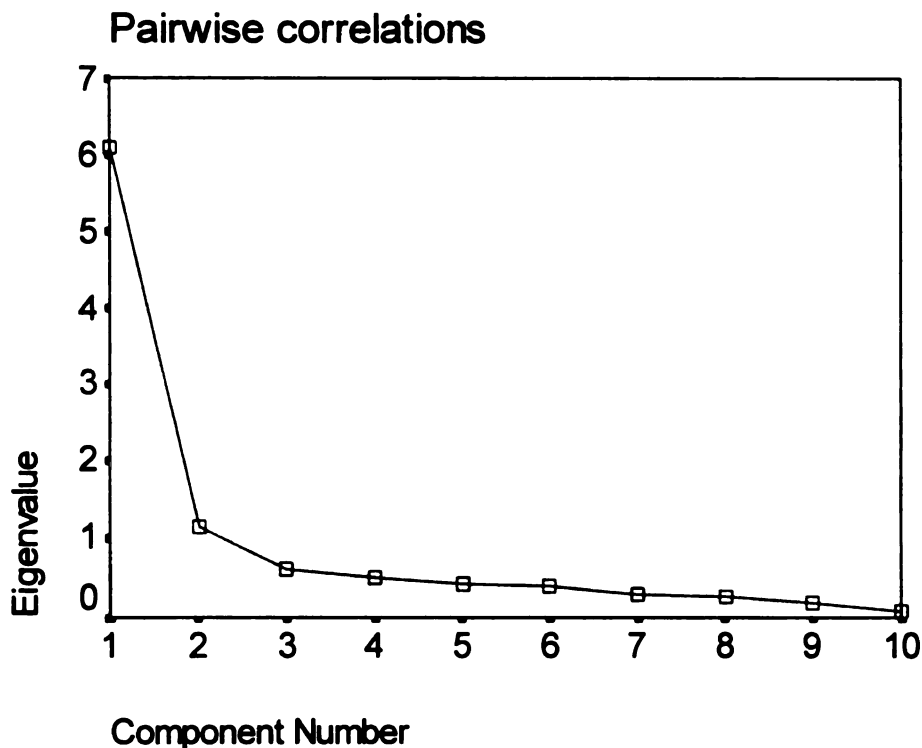


Figure 4. Scree plot of the CCS EFA.

Figure 4 shows that there is one major factor represented in this data, with a possible second minor factor. It was determined that only one factor should be obtained from this data. The reasoning behind this decision was that this scale is not an important outcome in the model. For the outcomes (coping responses and resiliency attitudes), it is desirable to tease out as many different types of the outcomes as possible to more adequately describe the relationships between the multiple outcomes, even if some of the factors are relatively minor. Because this scale is included in the model only to control for core convictions, it is unimportant to include the minor factor as an additional control variable.

Therefore, the ten items were treated as a single factor. The internal consistency reliability (Cronbach's alpha) for the African American group was .92. For all students, the test-retest reliability was .83, suggesting that these core convictions tended to remain stable over the course of this study. However, there were two items with low test-retest correlations. Item 7 (all humans are created equal) and item 10 (we should persevere and endure until we succeed, and in our identity and faith) had test-retest correlations of .27 and .45 respectively. This suggests that these items may need to be revised, or that these particular convictions tended to change over the period of the study. There were 213 African American students with data on this factor, with a minimum value of 1, a maximum value of 4, a mean value of 3.68, and standard deviation of 0.52. There were 95 non-African American students with data on this factor.

The intent was also to control for religiosity and spirituality outside what is measured by the core convictions. As noted above, only three items from the MRS were

selected to measure these traits. To determine whether these three items contributed any information beyond the CCS, an EFA was conducted on the 10 CCS items and the three MRS items. The scree plot of the listwise EFA is shown in Figure 5. Because of the similarity of the pairwise results, only one graph is displayed.

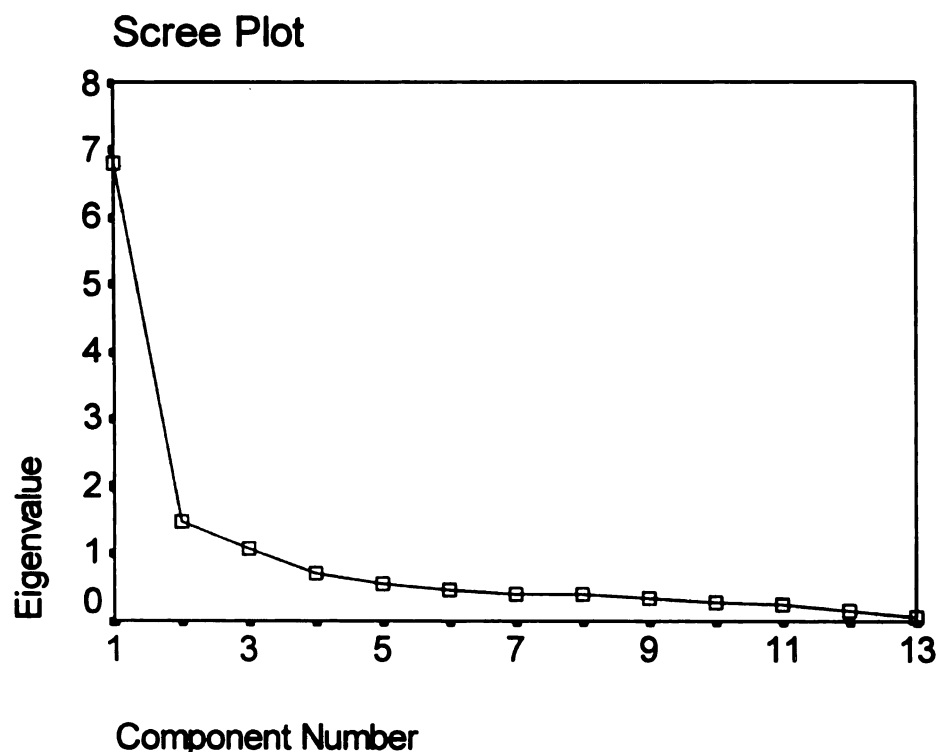


Figure 5. Scree plot of CCS, Religiosity, and Spirituality EFA.

From the scree plot in Figure 5, there appears to be one major factor with a possibility of two minor factors. Again, because these variables were included in the model to control for differences in religiosity/spirituality/core convictions, there was no need to tease out the minor factors from the major factors. Therefore, a single scale was formed from the 10 CCS items and the 3 MRS items. By collapsing this scale we are including some additional information about religiosity and spirituality beyond the core convictions in the scale, in order to control for these things, but the complexity of the

analysis is reduced. This scale was termed the Protective Beliefs Scale. A total of 213 students had data on this variable, with a minimum value of 1, a maximum value of 3.85, a mean value of 3.44, a standard deviation of 0.47, and a reliability of 0.91.

The African American Acculturation Scale – Revised (AAAS-R)

Only the “religious beliefs and practices” dimension of the AAAS-R was conceptually important to this study, but the entire AAAS-R was subjected to an EFA. The strongest factor in the results of the EFA was the “religious beliefs and practices” subscale, minus item 9. This item (“What goes around comes around”) didn’t fit either conceptually or statistically, so it was of no concern that this did not contribute to this factor. This single factor was extracted from the AAAS-R. This subscale was referred to in this study as the Culturally Salient Religious Beliefs and Practices (CSRBP) scale. The reliability of this factor was 0.80. There were 218 students with values on this variable, with a minimum value of 1, a maximum value of 7, a mean of 5.64, and a standard deviation of 1.23.

The Resiliency Attitudes Scale (RAS)

The 72 items of the RAS were subjected to principal components EFA with Varimax rotation. The scree plots of both the listwise and pairwise EFA are presented in Figure 6.

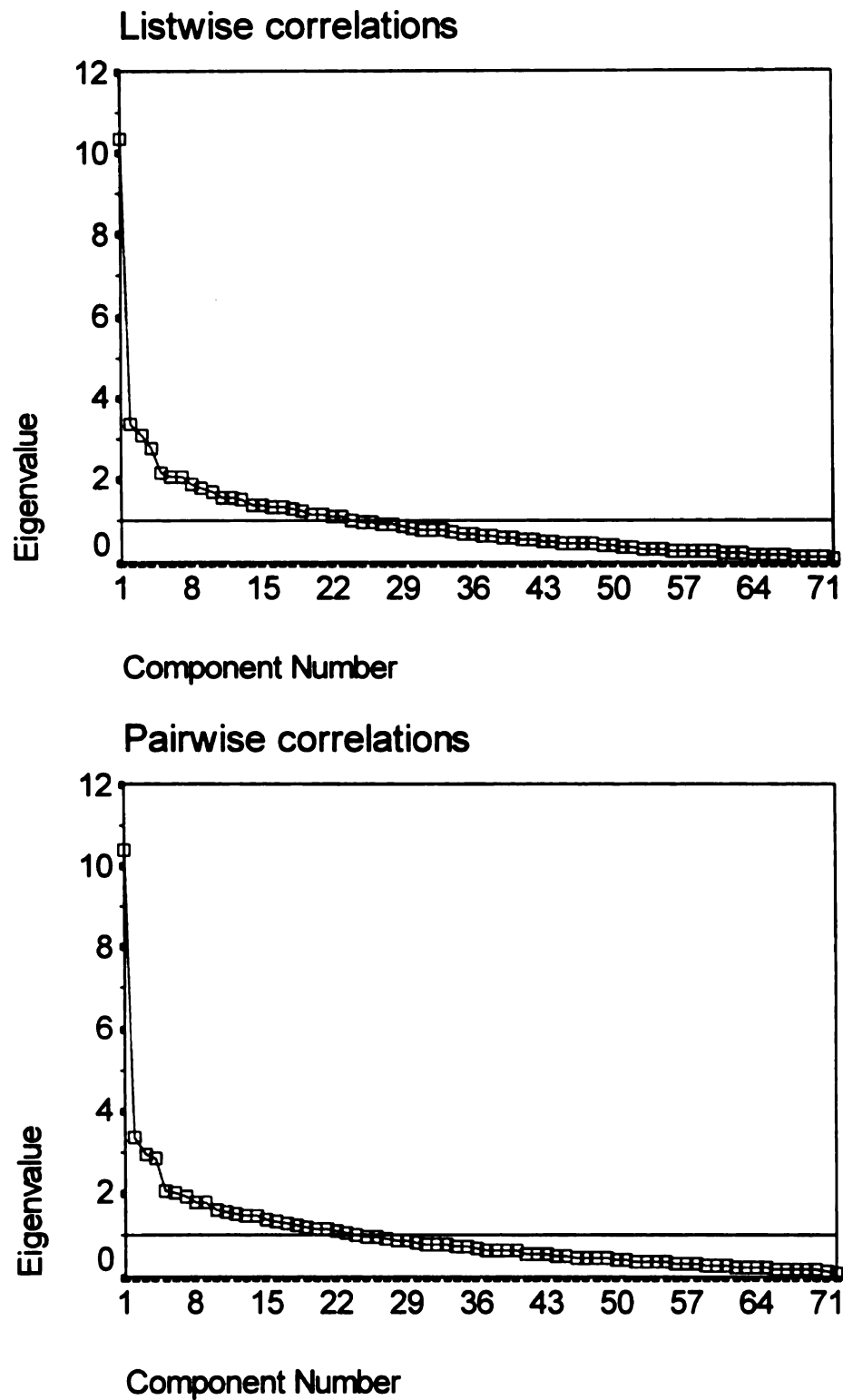


Figure 6. Listwise and pairwise scree plots of the RAS EFA.

As with the COPE, the rule of thumb of “Eigenvalue > 1” is not reasonable for the RAS. By slightly modifying the rule thumb, there is a dramatic change in the number of factors resulting from the analysis. From the pairwise scree plot, the only reasonable cutoffs are 1 and 4 factors. From the listwise scree plot, the reasonable cutoffs are 1, 4, and 7 factors. However cutting the number of factors at 7 is questionable because the drop in the graph to the eighth factor is minor. A four-factor solution was examined for conceptual integrity. None of the factors in this solution fit together conceptually. The complete matrix of factor loadings is presented in Appendix D along with an explanation of why the factors did not fit together conceptually. See Table 15 in Appendix D for the factor-loading matrix for the RAS EFA.

Because the results of the EFA could be interpreted in a logical manner, the reliabilities of the proposed seven subscales on this instrument were examined. The reliabilities of the seven subscales observed in this sample were 0.33, 0.56, 0.47, 0.65, 0.68, 0.60, and 0.78 in order. The most reliable proposed subscale was the general resiliency subscale, which had not ever been subject to scaling analysis. The first three subscales were insufficiently reliable for use as separate scales, however, the next three could reasonably be used. In addition, the first six proposed subscales were conceptually inconsistent with the definition of general resilience given by Biscoe and Harris (1994) - “the belief that one can make things better for self and others” (p 11 of resiliency manual). However the general resiliency questions tended to be consistent with that definition. For these reasons, as well as being unable to obtain a reasonable factor solution for this instrument, only the questions from the general resiliency subscale were used.

These 10 items (63-72) were evaluated for reliability. The results showed that items 68 and 69 decreased the reliability of the scale. These items (“68: No matter how hard I try, I can’t make things right,” and “69: I am willing to go with any approach that will work”) were also inconsistent with the definition of resiliency. Item 68 seems to be measuring hopelessness rather than a willingness to persist, and item 69 seems to be mixing morality with persistence rather than measuring primarily persistence. These two items were thus removed from this scale. The reliability of the remaining eight items was 0.82. There were 218 students with values on this variable, with a minimum score of 2.25, a maximum score of 5, a mean score of 4.07, and a standard deviation of 0.60.

Modeling the Data

Initial Models

Three competing models of the data were developed: a model where the relationships between coping responses and resiliency attitudes are reciprocal, and two models where the relationship was unidirectional (one with coping responses causally prior to attitudes that reflect resilience, and one with attitudes causally prior to coping responses). This was done to answer research question 5, and to provide evidence concerning Jew, Green and Kroger’s (1999) hypothesis that coping responses emerge from resilient beliefs. Each of the proposed models is presented below.

Initial reciprocal model. The initial reciprocal model included a causal relationship from attitudes that reflect resilience to each coping response, as well as from each coping response to attitudes that reflect resilience. It also included causal relationships from protective beliefs, culturally salient religious beliefs and practices, class standing, sex, and CAAP participation to attitudes that reflect resilience and to each

coping response. In addition, moderating effects of protective religious beliefs on the reciprocal relationship between coping responses and attitudes that reflect resilience were also included (i.e., the interaction of protective beliefs with each coping response on attitudes that reflect resilience, and the interaction of protective beliefs with attitudes that reflect resilience on each coping response).

Initial unidirectional models. The initial unidirectional models were subsets of the initial reciprocal models. For the model with coping responses causally prior to attitudes that reflect resilience, the causal relationships from coping responses to attitudes that reflect resilience were removed, and the moderating effects of protective beliefs on those relationships were also removed (the moderating effects on the reversed causal relationships remained). For the model with attitudes that reflect resilience causally prior to coping responses, the reverse was done.

Final Models

After modifying the models as described in the Analysis section, the models were inspected for violations of assumptions. All models had violations of the assumption of multivariate normality, with a relatively large number of outliers. It was determined that the outliers should not be removed from the model to address this problem because there were too many. It was also determined that transformations of the offending variables would not be attempted because the interpretation of the results would be confusing. This is because the relationships between variables would have to be interpreted in terms of the transformed variables rather than in terms of the understandable scales. This resulted in the p-values of statistical tests being somewhat biased. The results of model development were still guided by statistical tests with a cutoff of $\alpha = 0.05$ with the

knowledge that they may be slightly off. This violation of assumptions does not affect the validity of the decisions, about which models are the best fitting models, nor does it affect the estimation of effect sizes—it only affects the statistical tests of significance of the relationships between variables. For this reason, the statistical tests are used as a guideline for selecting relationships to be evaluated, but the effects sizes are considered more important to the discussion.

At this point the models were evaluated for best fit. The fit statistics of each model are presented in Table 7. See Kline (1998) for a description of each of the tests of fit reported in Table 7.

Table 7. Fit statistics of the three competing models.

Type	Measure of fit		Model		
	Statistic	Interpretation rule	ARR ↔ CR	ARR → CR	CR → ARR
Rule-of-thumb model-comparison fit measures	AIC	Smaller is best fitting model	141.4	148.7	150.2
	CAIC	Smaller is best fitting model	336.8	356.8	358.3
	BCC	Smaller is best fitting model	148.8	157.1	158.6
Statistical test of individual- model fit	χ^2	p-value greater than 0.20, or χ^2 less than df	49.4	50.7	52.2
	Df		45	56	56
	p-value		0.302	0.675	0.621
	χ^2/df	Less than 2 = good fit	1.098	0.905	0.931
Rule-of-thumb individual-model fit measures	RMSR	Close to zero = good fit	0.026	0.022	0.022
	GFI	Greater than 0.90 = good fit	0.961	0.964	0.963
	AGFI	Greater than 0.90 = good fit	0.922	0.932	0.931
	NFI	Greater than 0.90 = good fit	0.936	0.930	0.929
	RMSEA	Less than 0.05 = good fit	0.023	0.000	0.000

As shown in Table 7, all three models adequately fit the data. For the statistical tests of individual-model fit, each model had a p-value greater than the cutoff of 0.20. For the rule-of-thumb individual-model fit measures, each model satisfied the rule of thumb for each measure. Finally, on all of these measures, each model appears to be approximately in the same range of acceptability.

Because the competing models were not nested within the reciprocal model, no exact statistical test of the utility of adding the reciprocal relationships was conducted. In lieu of a statistical test of significance, the rule of thumb of comparing the Akaike Information Criterion (AIC) and Consistent AIC (CAIC), and the Browne and Cudeck Criterion (BCC) across models was used (for AIC and CAIC see Kline, 1998; for BCC, see Brown and Cudeck, 1989). The model with the lower AIC/CAIC/BCC is deemed the better-fitting model. The AIC, CAIC, and BCC for the three competing models are also presented in Table 7.

As shown in Table 7, the reciprocal (or bi-directional) model has better fit on all rule-of-thumb model-comparison fit measures. However, in developing the reciprocal model, most of the reciprocal relationships dropped out, and the two reciprocal relationships that remained canceled each other out. That is, there was a positive effect of Adaptive Coping Responses on Attitudes that Reflect Resilience, but there was a negative effect of Attitudes that Reflect Resilience on Adaptive Coping Responses. Furthermore, there was a negative effect of Non-adaptive Coping Responses on Attitudes that Reflect Resilience, but a positive effect of Attitudes that Reflect Resilience on Non-adaptive Coping Responses. Conceptually, it is expected that the relationships will have the same sign. For Attitudes that Reflect Resilience and Adaptive Coping Responses, both relationships should be positive, since there is no reason to expect that high levels of Attitudes that Reflect Resilience will cause adaptive coping responses to decrease. For Attitudes that Reflect Resilience and Non-adaptive Coping Responses, both relationships should be negative, since there is no reason to believe that high Attitudes that Reflect Resilience would cause Non-adaptive Coping Responses to increase. In both cases, this

model suggests that both the Coping Responses and Attitudes that Reflect Resilience fluctuate in concert with each other to create some kind of equilibrium. Of course, this study has no longitudinal data to support such a claim. For these reasons, the reciprocal model was abandoned, and the task was then to determine which of the unidirectional models was a better representation of the data.

As shown in Table 7, the model assuming that Attitudes that Reflect Resilience cause some types of Coping Responses has slightly better fit than the model assuming the opposite for all three measures of model-comparison fit. However, the differences between the fit statistics are so small that either model can be considered equally adequate in explaining the data.

Because presenting the full names of the variables makes these tables cumbersome, Table 8 presents acronyms used to represent the variables in Tables 9-11. The final unidirectional models are displayed graphically in Figures 7 and 8, and in tabular form in Tables 9 through 11.

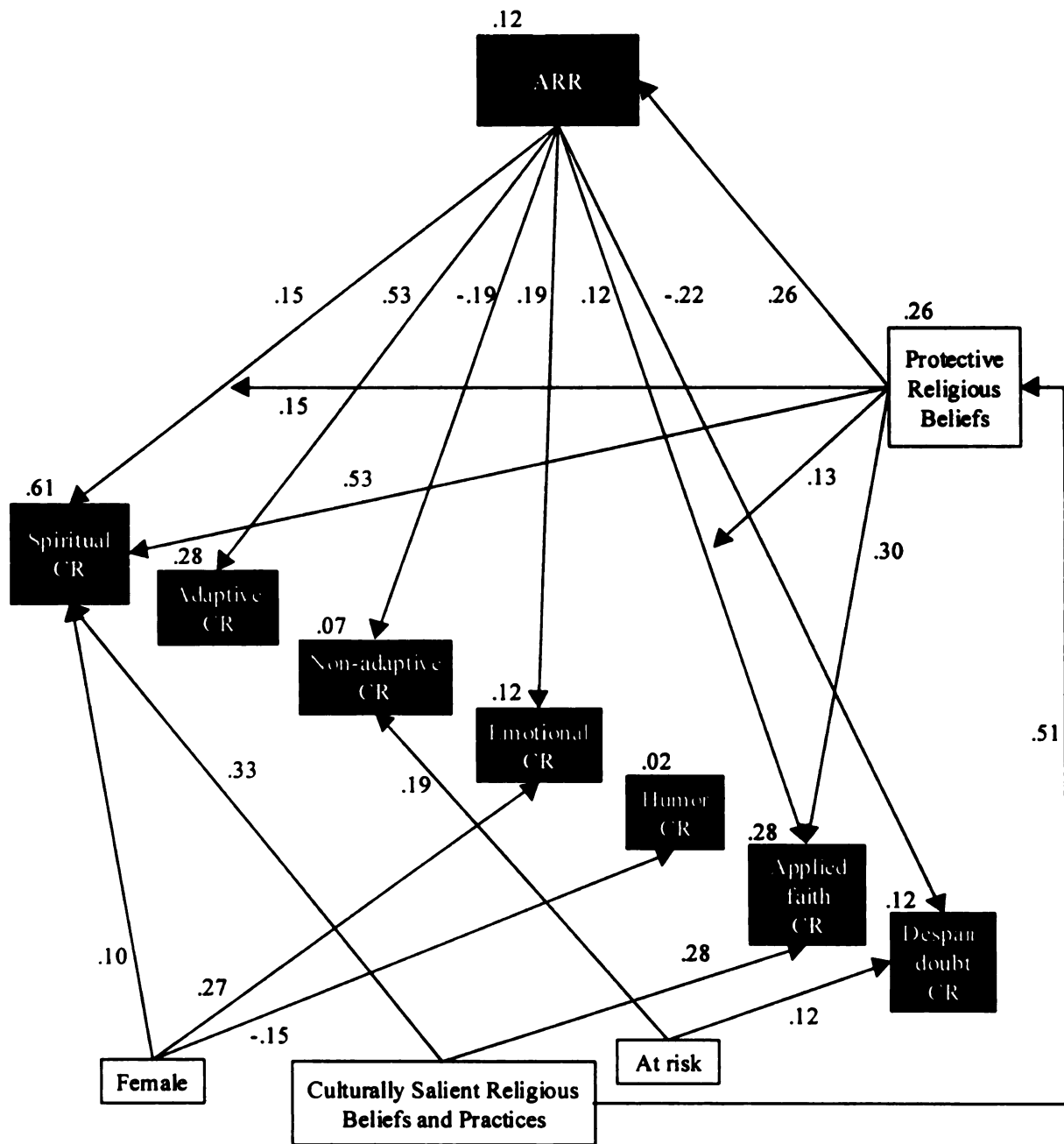


Figure 7. Graphical display of the unidirectional ARR → CR model.

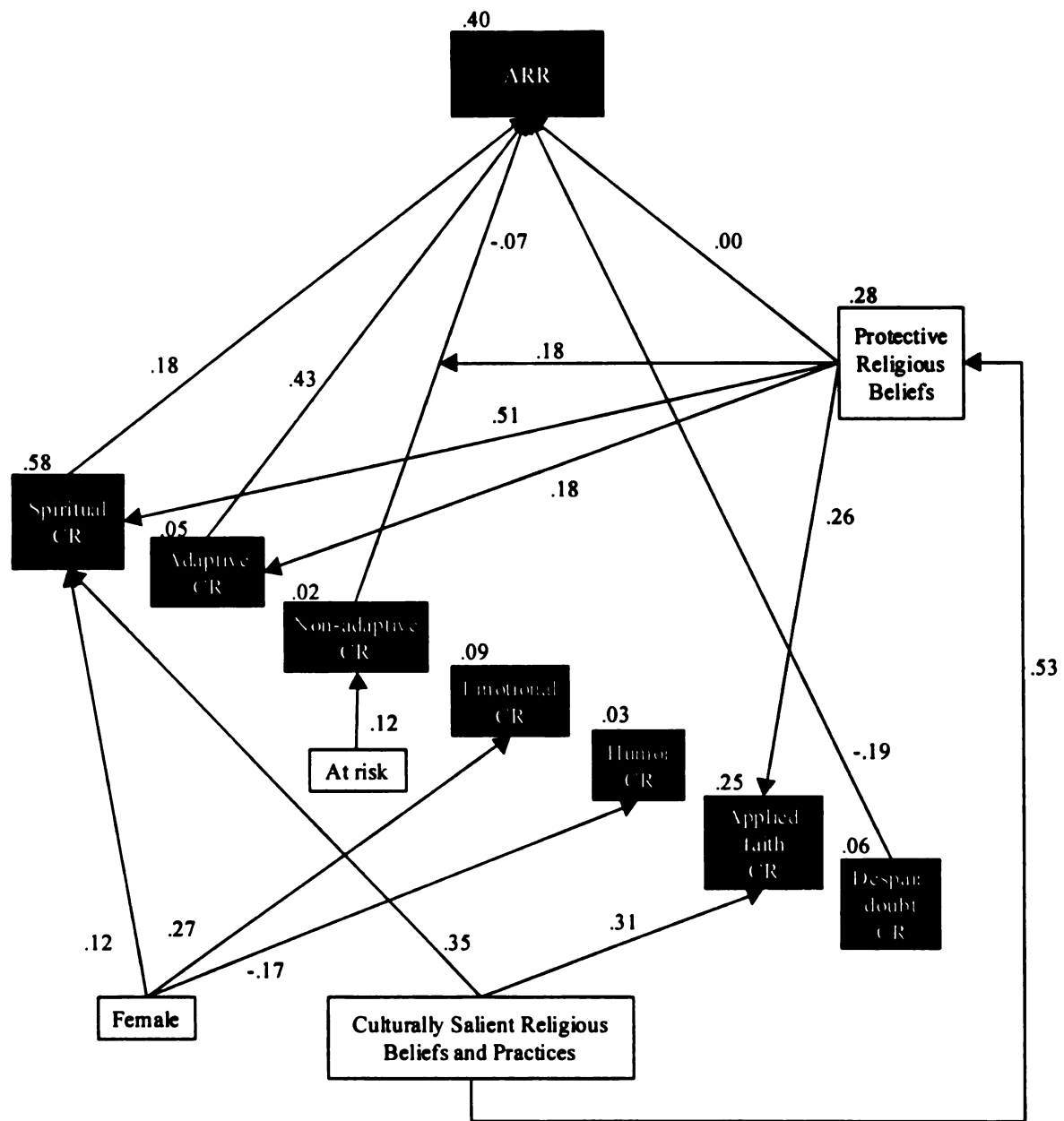


Figure 8. Graphical display of the unidirectional CR → ARR model.

In the graphical model, the arrows signify the direction of causality. The numbers near the lines represent the partial correlation (meaning the correlation between the parts of the two variables that are unexplained by any other predictors) between the two variables connected by the lines. Because these are standardized values (or correlations), these may be considered effect sizes, and may be compared directly with each other to determine which relationships are the most important in each model. The number just outside the box of each variable represents the proportion of variation accounted for in these variables by all of the predictors of that variable. Finally, to clarify the graphical presentation of the model, the class level of each student was left out of the models. In both models, class level was a statistically significant control of Attitudes that Reflect Resilience and some Coping Response variables, but was considered to be unimportant to the theory. It was expected that those students who had made it through more years of school would have more desirable values of Attitudes that Reflect Resilience and Coping Responses.

Table 9 presents the results of the unidirectional ARR → CR model, for direct effects and moderating effects only. Table 10 presents the same results for the unidirectional CR → ARR model. The effects on the outcomes of the models in Tables 9 and 10 are presented in bold. Table 11 presents all direct, indirect, and total effects of all predictors in both models. Table 11 adds to the results in Table 9 and 10 by listing the indirect effects of variables on Attitudes that Reflect Resilience and Coping Responses that are not reported in a traditional single-outcome statistical analysis.

Table 8. Acronyms used in Tables 9-11.

Acronym	Full name
ADCR	Adaptive Coping Responses
AFCR	Applied Faith Coping Responses
ARR	Attitude the Reflect Resilience
CSRBP	Culturally Salient Religious Beliefs and Practices
DDCR	Despair/Doubt Coping Responses
EMCR	Emotional Coping Responses
HUCR	Humor Coping Responses
NACR	Non-Adaptive Coping Responses
PRB	Protective Religious Beliefs
SPCR	Spiritual Coping Responses

Table 9. Results of the unidirectional ARR → CR model.

Relationship		Statistics				
		Regression weight		Critical ratio	p-value	
		Unstandardized	Standardized			
Predictor	Outcome	<i>B</i>	<i>se(β)</i>	<i>B</i>		
ARR → ADCR		0.44	0.05	0.53	8.76	0.00
ARR → AFCR		0.17	0.10	0.12	1.82	0.07
CSRBP → AFCR		0.20	0.05	0.28	3.80	0.00
PRB → AFCR		0.60	0.16	0.30	3.69	0.00
PRB * ARR → AFCR		0.39	0.21	0.13	1.88	0.06
Class → ARR		0.11	0.03	0.24	3.47	0.00
PRB → ARR		0.35	0.09	0.26	3.85	0.00
ARR → DDCR		-0.18	0.06	-0.22	-3.08	0.00
At risk → DDCR		0.13	0.07	0.12	1.75	0.08
Class → DDCR		-0.06	0.03	-0.17	-2.38	0.02
ARR → EMCR		0.22	0.08	0.19	2.64	0.01
Class → EMCR		-0.08	0.04	-0.16	-2.39	0.02
Female → EMCR		0.40	0.09	0.27	4.25	0.00
Female → HUCR		-0.28	0.13	-0.15	-2.27	0.02
ARR → NACR		-0.17	0.06	-0.19	-2.78	0.01
At risk → NACR		0.20	0.07	0.19	2.80	0.01
CSRBP → PRB		0.19	0.02	0.51	9.16	0.00
ARR → SPCR		0.18	0.06	0.15	3.22	0.00
CSRBP → SPCR		0.19	0.03	0.33	6.13	0.00
Female → SPCR		0.16	0.06	0.11	2.60	0.01
PRB → SPCR		0.83	0.09	0.53	8.79	0.00
PRB * ARR → SPCR		0.34	0.12	0.15	2.88	0.00

Table 10. Results of the unidirectional CR → ARR model.

Relationship		Statistics				
		Regression weight		Critical	ratio	p-value
		Unstandardized	Standardized			
Predictor → Outcome		β	$se(\beta)$	B		
Class → ADCR		0.04	0.02	0.12	1.78	0.08
PRB → ADCR		0.20	0.07	0.18	2.92	0.00
CSRBP → AFCR		0.22	0.05	0.31	4.23	0.00
PRB → AFCR		0.52	0.14	0.26	3.61	0.00
ADCR → ARR		0.53	0.08	0.43	7.12	0.00
Class → ARR		0.06	0.03	0.14	2.35	0.02
DDCR → ARR		-0.22	0.07	-0.19	-3.04	0.00
NACR → ARR		-0.09	0.08	-0.07	-1.10	0.27
PRB → ARR		0.00	0.11	0.00	-0.01	1.00
PRB * NACR → ARR		0.50	0.19	0.18	2.70	0.01
SPCR → ARR		0.15	0.07	0.18	2.19	0.03
Class → DDCR		-0.10	0.03	-0.25	-3.80	0.00
Class → EMCR		-0.06	0.04	-0.11	-1.66	0.10
Female → EMCR		0.40	0.10	0.27	4.27	0.00
Female → HUCR		-0.31	0.13	-0.17	-2.44	0.02
At risk → NACR		0.13	0.06	0.13	2.10	0.04
CSRBP → PRB		0.19	0.02	0.53	9.08	0.00
CSRBP → SPCR		0.20	0.03	0.35	6.60	0.00
Female → SPCR		0.19	0.06	0.12	3.07	0.00
PRB → SPCR		0.79	0.09	0.51	9.18	0.00

Table 11. Direct, indirect, and total effects in the unidirectional ARR → CR and CR → ARR models.

Unidirectional ARR -> CR model					Unidirectional CR -> ARR model				
Relationship		Standardized effects			Relationship		Standardized effects		
Predictor	Outcome	Direct	Indirect	Total	Predictor	Outcome	Direct	Indirect	Total
ARR	→ ADCR	0.53	0.00	0.53	Class	→ ADCR	0.12	0.00	0.12
Class	→ ADCR	0.00	0.12	0.12	CSRBP	→ ADCR	0.00	0.10	0.10
CSRBP	→ ADCR	0.00	0.07	0.07	PRB	→ ADCR	0.18	0.00	0.18
PRB	→ ADCR	0.00	0.14	0.14	CSRBP	→ AFCR	0.31	0.14	0.45
ARR	→ AFCR	0.12	0.00	0.12	PRB	→ AFCR	0.26	0.00	0.26
Class	→ AFCR	-0.17	0.03	-0.14	ADCR	→ ARR	0.43	0.00	0.43
CSRBP	→ AFCR	0.28	0.17	0.45	At risk	→ ARR	0.00	-0.01	-0.01
PRB	→ AFCR	0.30	0.03	0.33	Class	→ ARR	0.14	0.10	0.24
PRB * ARR	→ AFCR	0.13	0.00	0.13	CSRBP	→ ARR	0.00	0.15	0.15
Class	→ ARR	0.24	0.00	0.24	DDCR	→ ARR	-0.19	0.00	-0.19
CSRBP	→ ARR	0.00	0.13	0.13	Female	→ ARR	0.00	0.02	0.02
PRB	→ ARR	0.26	0.00	0.26	NACR	→ ARR	-0.07	0.00	-0.07
ARR	→ DDCR	-0.22	0.00	-0.22	PRB	→ ARR	0.00	0.17	0.17
At risk	→ DDCR	0.12	0.00	0.12	PRB * NACR	→ ARR	0.18	0.00	0.18
Class	→ DDCR	0.00	-0.05	-0.05	SPCR	→ ARR	0.18	0.00	0.18
CSRBP	→ DDCR	0.00	-0.03	-0.03	Class	→ DDCR	-0.25	0.00	-0.25
PRB	→ DDCR	0.00	-0.06	-0.06	Class	→ EMCR	-0.11	0.00	-0.11
ARR	→ EMCR	0.19	0.00	0.19	Female	→ EMCR	0.27	0.00	0.27
Class	→ EMCR	-0.16	0.04	-0.12	Female	→ HUCR	-0.17	0.00	-0.17
CSRBP	→ EMCR	0.00	0.03	0.03	At risk	→ NACR	0.13	0.00	0.13
Female	→ EMCR	0.27	0.00	0.27	CSRBP	→ PRB	0.53	0.00	0.53
PRB	→ EMCR	0.00	0.05	0.05	CSRBP	→ SPCR	0.35	0.27	0.62
Female	→ HUCR	-0.15	0.00	-0.15	Female	→ SPCR	0.12	0.00	0.12
ARR	→ NACR	-0.19	0.00	-0.19	PRB	→ SPCR	0.51	0.00	0.51
At risk	→ NACR	0.19	0.00	0.19					
Class	→ NACR	0.00	-0.05	-0.05					
CSRBP	→ NACR	0.00	-0.03	-0.03					
PRB	→ NACR	0.00	-0.05	-0.05					
CSRBP	→ PRB	0.51	0.00	0.51					
ARR	→ SPCR	0.15	0.00	0.15					
Class	→ SPCR	0.00	0.04	0.04					
CSRBP	→ SPCR	0.33	0.29	0.62					
Female	→ SPCR	0.11	0.00	0.11					
PRB	→ SPCR	0.53	0.04	0.57					
PRB * ARR	→ SPCR	0.15	0.00	0.15					

Results of the ARR → CR model

The results of the ARR → CR model are presented here as a representation of the relationships among variables in the data. The competing model is presented in the same fashion below.

Direct Effects of Attitudes that Reflect Resilience on Coping Responses. The ARR → CR model reveals Attitudes that Reflect Resilience and Coping Responses are distinct but related constructs. The results in Table 9 indicate a statistically significant direct effect of Attitudes that Reflect Resilience on six out of the seven coping responses

assessed in this study. Ordered by decreasing standardized regression weights (size of the relationships), they are Adaptive Coping Responses (.53), Despair/doubt Coping Responses (-.22), Emotion Coping Responses (.19), Non-adaptive Coping Responses (-.19), Spiritual Coping Responses (.15), and Applied Faith Coping Responses (.12).

These standardized regression weights are effect sizes. They represent the amount of change in the Coping Responses (in terms of standard deviations) expected for a one standard deviation change in Attitudes that Reflect Resilience, controlling for all other predictors of the individual coping responses being predicted. Where the sign is negative, an increase in Attitudes that Reflect Resilience predicts a decrease in Coping Responses, but when positive, an increase in Attitudes that Reflect Resilience predicts an increase in Coping Responses. A small effect is indicated by the absolute value of a standardized regression weight (path coefficient) less than 0.1, a medium effect is indicated by the absolute value of a standardized regression weight (path coefficient) around 0.3, and a large effect is indicated by the absolute value of a standardized regression weight (path coefficient) of 0.5 or larger (see Kline, 1998).

Accordingly, Adaptive Coping Responses are expected to improve by 0.53 standard deviations given an increase of one standard deviation in Attitudes that Reflect Resilience, controlling for any changes in other variables. Results in this study show that Attitudes that Reflect Resilience have a large statistically significant relationship with/effect on Adaptive Coping Responses. Despair/doubt Coping Responses are expected to decrease by .22 standard deviations given an increase of one standard deviation in Attitudes that Reflect Resilience, controlling for the direct and indirect effects from other variables in the model. Emotional Coping Responses are expected to

increase by .19 standard deviations given an increase of one standard deviation in Attitudes that Reflect Resilience, controlling for the direct and indirect effects from other variables in the model. Non-adaptive Coping Responses are expected to decrease by .19 standard deviations given one standard deviation increase in Attitudes that Reflect Resilience, controlling for all other direct and indirect effects in the model. And finally, Spiritual Coping Responses are expected to increase by .15 standard deviations given one standard deviation increase in Attitudes that Reflect Resilience, controlling for all other direct and indirect effects in the model. The relationships between Attitudes that Reflect Resilience and the identified Coping Responses in the model are statistically significant with the exception of Applied Faith Coping Response. The p-value for this relationship is just above the $p < .05$ level of significance.

The Interpretation of the Relationships. When Attitudes that Reflect Resilience increase, Adaptive Coping Responses, Emotional Coping Responses, Spiritual Coping Responses, and Applied Faith Coping Responses tend to increase. The Non-adaptive Coping Responses and Despair/doubt Coping Responses tend to decrease. The p-value of the relationship between Attitudes that Reflect Resilience and Applied Faith Coping Responses was $p < 0.07$, slightly above the cutoff of 0.05, but small enough to merit discussion.

Direct Effects of Protective Religious Beliefs on Coping Responses and Attitudes that Reflect Resilience. Protective Religious Beliefs (PRB) had direct, statistically significant effects on Spiritual Coping Responses (0.53), and Applied Faith Coping Responses (0.30), and Attitudes that Reflect Resilience (0.26). This means that students

who held Protective Religious Beliefs also tended to use Spiritual Coping Responses, Applied Faith Coping Responses, and Attitudes that Reflect Resilience.

Combined Effects of Attitudes that Reflect Resilience and Protective Religious Beliefs on Coping Responses. Protective Religious Beliefs had essentially equivalent moderating effects on the relationship between Attitudes that Reflect Resilience and Spiritual Coping Responses (0.15) and on the relationship between Attitudes that Reflect Resilience and Applied Faith Coping Responses (0.13). Because this is an interaction effect, the interpretation is difficult. To aid in the interpretation, both relationships are presented in graphical form in Figures 9 and 10. These figures show that even in interaction, the combined effects on Spiritual and Applied Faith Coping Responses on Attitudes that Reflect Resilience and Protective Religious Beliefs are almost identical—the graphs are very similar. The graphs show that students with high, moderate, and low use of Protective Religious Beliefs (PRB) who possess low levels of Attitudes that Reflect Resilience (ARR) use about the same amount of Spiritual and Applied Faith Coping Responses. However, as Attitudes that Reflect Resilience increase in strength, students with high PRB and high ARR tend to use these coping responses more, students with a moderate level of PRB and high ARR tend to use these coping responses moderately, and students with low PRB and high ARR tend to use fewer Spiritual/Applied Faith Coping Responses.

Other Direct Effects on Coping Responses. Gender, class-level, Culturally Salient Religious Beliefs and Practices, and At Risk status demonstrated statistically significant direct effects on coping responses as well. Females tended to use Spiritual Coping Responses (0.10) and Emotional Coping Responses (0.27) more than males, and tended

to use Humor Coping Responses (-0.15) less than males, with the most important effect being on the use of Emotional Coping Responses. Females did not show any tendencies to use any other type of Coping Responses more or less than males.

At Risk students tended to use more Non-adaptive (0.19) and Despair/doubt (0.12) Coping Responses than non-At Risk students, but showed no differences in the use of any other Coping Responses. There was no direct or indirect relationship between risk status and Attitudes that Reflect Resilience in this model.

Culturally Salient Religious Beliefs and Practices had a statistically significant positive effect on Spiritual Coping Responses (0.33) and Applied Faith Coping Responses (0.28), meaning that students who identified with the Culturally Salient Religious Beliefs and Practices tended to use the faith-based coping responses more than other students.

Class level had small statistically significant effects on Emotional Coping Responses, Despair/doubt Coping Responses, and on Attitudes the Reflect Resilience. This suggests that these variables vary with class level. However, these cannot be considered to be effects of class level per se. While it may be that advancing through school results in increased Attitudes that Reflect Resilience and changes in coping responses, it may also be that having higher Attitudes that Reflect Resilience and more favorable coping response results in being able to advance in school. Therefore, class level serves only as a control to reduce noise in the model.

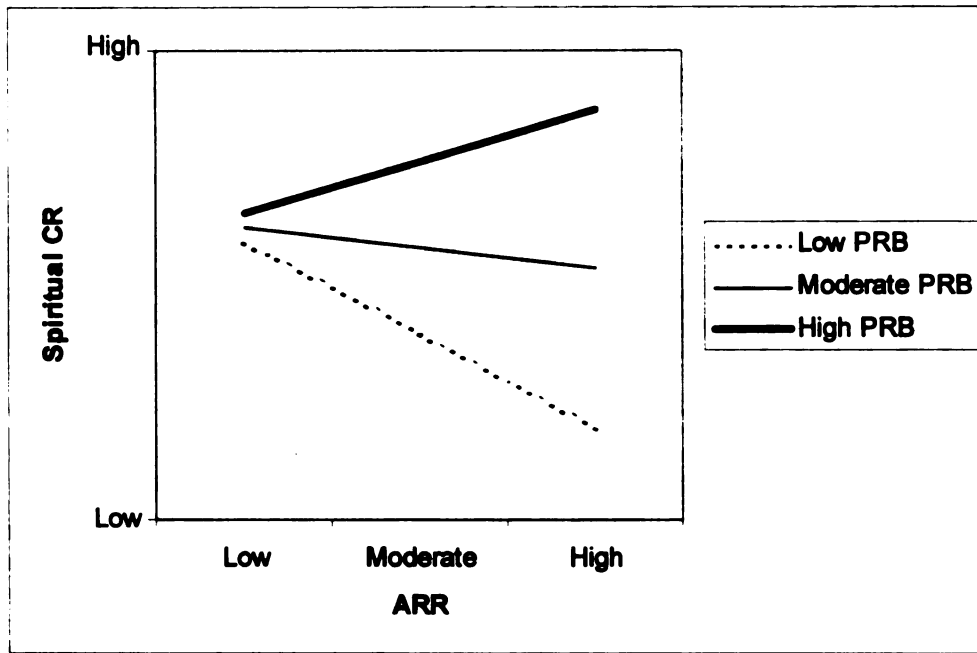


Figure 9. Spiritual CR as an outcome of ARR, moderated by PRB.

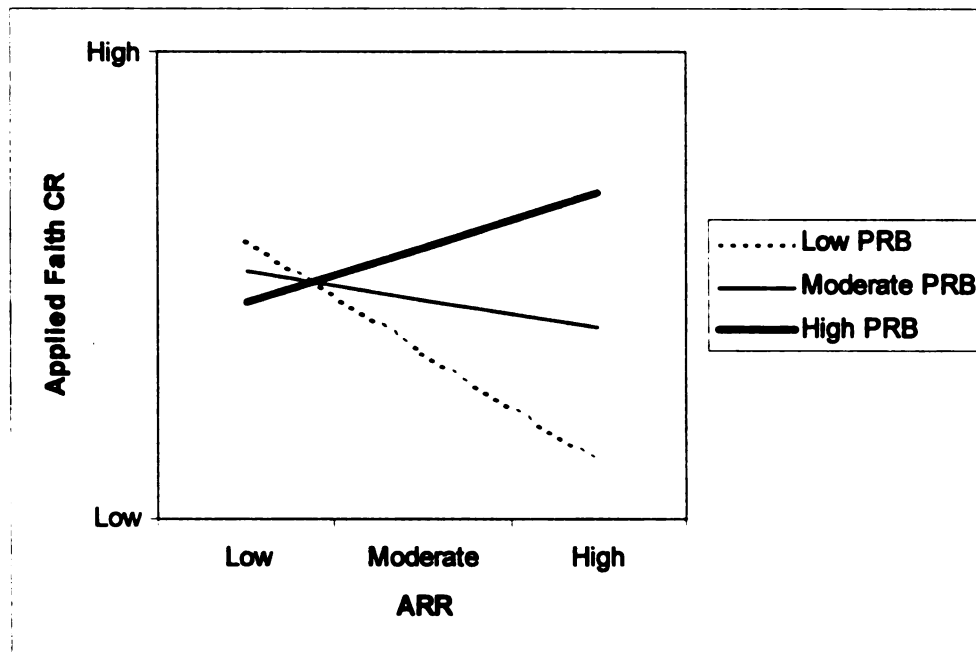


Figure 10. Applied Faith CR as an outcome of ARR, moderated by PRB.

Indirect effects on coping responses. Culturally Salient Religious Beliefs and Practices (CSRBP) and Protective Religious Beliefs (PRB) also had important indirect effects on coping responses. Although it had no direct effect on Adaptive Coping Responses, Protective Religious Beliefs had an important indirect effect (0.14). This is because, if we assume the model is correct, Protective Religious Beliefs had a direct effect on Attitudes that Reflect Resilience, which in turn had a direct effect on Adaptive Coping Responses. Changes in Culturally Salient Religious Beliefs and Practices effect changes in Protective Religious Beliefs that in turn, effect changes in Attitudes that Reflect Resilience, which effects a change in Adaptive Coping Responses, even though it does not do so directly.

In addition to the direct effects already described, Culturally Salient Religious Beliefs and Practices also had an indirect effect through Protective Religious Beliefs on Spiritual Coping Responses (0.29) and Applied Faith Coping Responses (0.17). Adding the direct and indirect effects together, the total effects of Culturally Salient Religious Beliefs and Practices on Spiritual Coping Responses and Applied Faith Coping Responses were 0.62 and 0.45 respectively. Whereas the direct effects were moderate, the total effects are large.

Summary of the ARR → CR model

In the ARR → CR model, higher levels of Adaptive, Emotional, Spiritual, and Applied Faith Coping Responses are associated with higher levels of Attitudes that Reflect Resilience among both the at-risk and non-at risk African American college students sampled. Use of Non-adaptive Coping Responses and Despair/doubt Coping Responses was inversely related to Attitudes that Reflect Resilience – as attitudes that

reflect resilience increased, there was a decrease in these two types of coping responses. While the at-risk students sampled tended to use more harmful coping responses than other students, they tended not to use any of the non-harmful coping responses any more or less than students not at risk. There was no direct or indirect relationship between risk status and Attitudes that Reflect Resilience in this model.

For all students, lower levels of attitudes that reflect resilience were associated with use of the harmful coping responses (e.g., Non-adaptive Coping Responses and Despair/doubt Coping Responses). Finally, females tended to use Spiritual Coping Responses and Emotional Coping Responses more than males, and they tended to use less Humor Coping Responses than males.

Protective Religious Beliefs (PRB) also have a large and statistically significant direct effect on Spiritual Coping Responses, medium direct effect on Applied Faith Coping Responses, and medium direct effect on Attitudes that Reflect Resilience. Culturally Salient Religious Beliefs and Practices (CSRBP) have a large direct effect on Protective Religious Beliefs (PRB), a medium direct effect on Spiritual Coping Responses, and a medium direct effect on Applied Faith Coping Responses. It is important to note that Culturally Salient Religious Beliefs and Practices are distinct but related to Protective Religious Beliefs.

Protective religious beliefs (PRB) also serve as a statistically significant moderator in the relationship between two of the outcome variables (Spiritual Coping Responses and Applied Faith Coping Responses) and the main predictor (Attitudes that Reflect Resilience). This moderating effect takes the following form: where students had low Attitudes that Reflect Resilience they used Spiritual and Applied Faith Coping

Responses moderately regardless of their Protective Religious Beliefs, but where students had high Attitudes that Reflect Resilience their use of Spiritual and Applied Faith Coping Responses depended heavily on their Protective Religious Beliefs. Those with high Protective Religious Beliefs tended to use Spiritual and Applied Faith Coping Responses a great deal, but those with low Protective Religious Beliefs tended to use Spiritual and Applied Faith Coping Responses very little. Hence Protective Religious Beliefs (PRB) are important moderators in the ARR → CR model.

Results of the CR → ARR model

Direct effects of coping responses on ARR. The results in Table 10 indicate a statistically significant direct effect of four coping responses (CR) on Attitudes that Reflect Resilience (ARR). Ordered by decreasing effect size, they are Adaptive Coping Responses (.43), Despair/doubt Coping Responses (-.19), Spiritual Coping Responses (.18), and Non-Adaptive Coping Responses (-.07). These effect sizes represent the amount of change in attitudes that reflect resilience in terms of standard deviations expected for one standard deviation change in the coping response predicting attitudes that reflect resilience, controlling for all other predictors of the attitudes that reflect resilience. A negative sign on a standardized regression weight indicates that an increase in the use of the designated coping response predicts a decrease in attitudes that reflect resilience. A positive standardized regression weight indicates that an increase in the use of the designated coping response predicts an increase in attitudes that reflect resilience. The definition of the importance of the effects in this model are the same as in the ARR → CR model: a small effect is indicated by an absolute value less than 0.1, a medium

effect is indicated by the absolute value around 0.3, and a large effect is indicated by the absolute value of 0.5 or greater.

Accordingly, Attitudes that Reflect Resilience are expected to increase by .43 standard deviations given an increase of one standard deviation in Adaptive Coping Responses, when Adaptive Coping Response is the only predictor that changes. Attitudes that Reflect Resilience are expected to decrease by .19 standard deviations given an increase of one standard deviation in Despair/doubt Coping Responses, controlling for other variables.

Attitudes that Reflect Resilience are expected to increase by .18 standard deviations given an increase of one standard deviation in Spiritual Coping Responses, controlling for all other variables. And finally, Attitudes that Reflect Resilience are expected to decrease by .07 standard deviations given an increase of one standard deviation in Non-adaptive Coping Responses, controlling for all other variables. All of the relationships in the CR → ARR model are statistically significant with the exception of Non-Adaptive Coping Responses on Attitudes that Reflect Resilience: NACR → ARR ($p < .27$). This relationship was maintained in the model as a main effect in order to adequately understand the interaction effect to which it contributes.

While at-risk students tend to use more Non-adaptive Coping Responses than Non-at-risk students, there was no direct relationship, or effect of risk status on Attitudes that Reflect Resilience in this model.

Direct effect of Protective Religious Beliefs on Attitudes that Reflect Resilience.

In this model, Protective Religious Beliefs do not have a direct effect on Attitudes that Reflect Resilience (effect size = 0.00, $p < 1.00$). This relationship was also maintained in

the model as a main effect in order to understand the interaction effect to which it contributes.

Combined effect of Protective Religious Beliefs and Non-adaptive Coping

Responses on Attitudes that Reflect Resilience. As noted above, neither Protective Religious Beliefs nor Non-adaptive Coping Responses had statistically significant main effects on Attitudes that Reflect Resilience, but they did have a statistically significant combined, or interaction effect on Attitudes that Reflect Resilience. This suggests that Protective Religious Beliefs moderate the relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience. Figure 11 shows that when students use Non-adaptive Coping Responses very little, there is no effect of Protective Religious Beliefs. However, when students use Non-adaptive Coping Responses a great deal, students with low Protective Religious Beliefs tend to have low Attitudes that Reflect Resilience, but students with high Protective Religious Beliefs tend to have high Attitudes that Reflect Resilience. This suggest that the name “Protective Religious Beliefs” is a reasonable label for this moderator—having high Protective Religious Beliefs may protect students from harmful effects of using Non-adaptive Coping Responses. This is important for the at-risk students because they tend to use Non-adaptive Coping Responses more often than students not at risk.

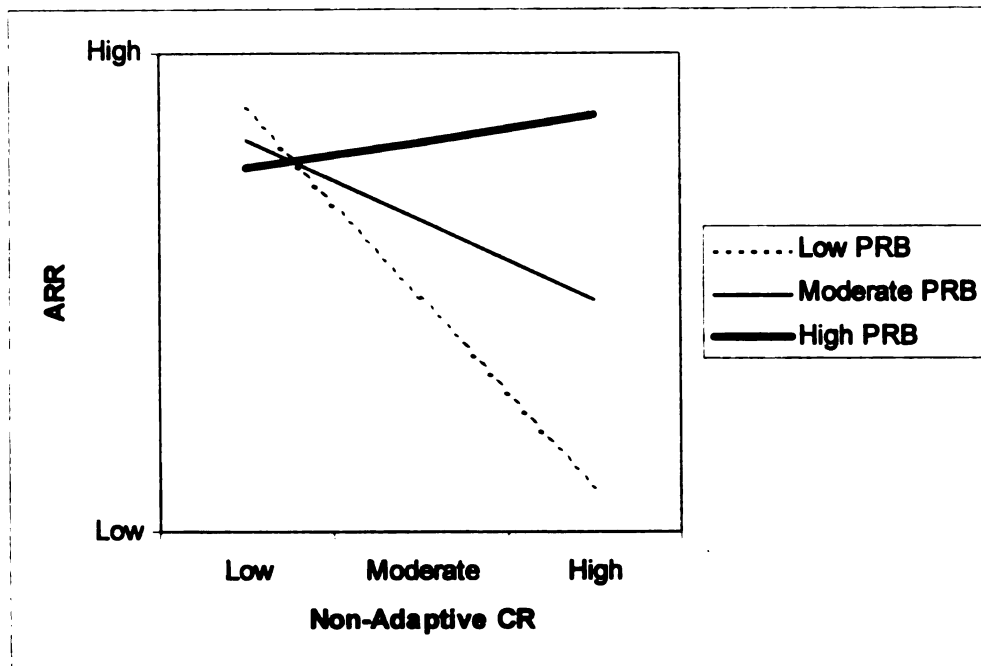


Figure 11. ARR as an outcome of Non-adaptive CR moderated by PRB.

Other direct effects. As in the ARR → CR model, class level had a small statistically significant direct effect (.14) and an indirect effect (.10) on Attitudes that Reflect Resilience, yielding a total effect of class on Attitudes that Reflect Resilience of .24. This suggests that Attitudes that Reflect Resilience varies with class level, but as in the ARR → CR model, this cannot be considered to be an effect of class level. While it may be that advancing through school results in increased Attitudes that Reflect Resilience, it may also be that having higher levels of Attitudes that Reflect Resilience may result in being able to advance in school. Therefore, this variable serves only as a control to reduce noise in the model.

In this model, Protective Religious Beliefs have a direct effect on Spiritual Coping Responses (.51), Applied Faith Coping Responses (.26) and Adaptive Coping Responses (.18). This means that students that held greater Protective Religious Beliefs also tended

to use Spiritual Coping Responses, Applied Coping Responses, and Adaptive Coping Responses more often than students with lesser Protective Religious Beliefs.

Indirect effects on Attitudes that Reflect Resilience. Attitudes that Reflect Resilience were indirectly affected by Protective Religious Beliefs (.17), Culturally Salient Religious Beliefs and Practices (.15), At-Risk status (.12) in this model. The route of the effect for Protective Religious Beliefs was through Adaptive Coping Responses and Spiritual Coping Responses. This does not include the moderation of the relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience explained above. The indirect effect of Culturally Salient Religious Beliefs and Practices on ARR takes a number of routes: (1) CSRBP-to-Spiritual CR, (2) CSRBP-to-PRB-to-Adaptive CR, and (3) CSRBP-to-PRB-to-Spiritual CR. Although each of these individual indirect effects was small, they combine to create an important effect. All other possible indirect effects (e.g. At-Risk-to-Non-adaptive CR-to-ARR) were too small to be considered important.

Summary of the CR → ARR model

In the CR → ARR model, Attitudes that Reflect Resilience and Coping Responses are separate but related constructs. Students who used Adaptive Coping Responses and Spiritual Coping Responses more than others also tended to have higher Attitudes that Reflect Resilience. On the contrary, students who used Despair/doubt Coping Responses and Non-adaptive Coping Responses more than others tended to have lower Attitudes that Reflect Resilience.

Protective Religious Beliefs (PRB) were a statistically significant moderator of the relationship between Non-adaptive Coping Responses and Attitudes that Reflect

Resilience. At-Risk students with higher Protective Religious Beliefs tended to have higher levels of Attitudes that Reflect Resilience, even if they use Non-adaptive Coping Responses; but Protective Religious Beliefs did not predict difference in Attitudes that Reflect Resilience for students who tended not to use Non-adaptive Coping Responses. Protective Religious Beliefs also have direct positive effects on Adaptive Coping Responses, Spiritual Coping Responses and Applied Faith Coping Responses.

At-risk students tended to use more Non-adaptive Coping Responses than Non-at-risk students, but there was no direct relationship, or effect of risk status on Attitudes that Reflect Resilience in this model.

Summary

The overall purpose of this study was to examine the relationship between attitudes that reflect resilience and coping among at risk and non-at risk African American college students, and to examine the moderating role of three factors that are believed to be protective in times of stress and adversity. This summary will be organized around the research questions that guided this study.

The methods used to test the hypothesis for this study included Structural Equation Modeling and Path Analysis. The results from each model may be summarized in the following manner, in response to the research questions:

1. In both the $ARR \rightarrow CR$ and the $CR \rightarrow ARR$ models, Attitudes that Reflect Resilience and Coping Responses are separate but related constructs. There are statistically significant relationships among the Attitudes that Reflect Resilience and select Coping Responses among both At-Risk and Non-At-Risk African American college students. The nature of these relationships

among Attitudes that Reflect Resilience and Coping Responses was the same for the At Risk and Non-At-Risk students with the exception of Non-adaptive Coping Responses.

2. Core Beliefs, Religiosity, and Spirituality were combined and re-conceptualized as “Protective Religious Beliefs” and were a statistically significant moderator of the relationships between Attitudes that Reflect Resilience and select Coping Responses. In particular, Protective Religious Beliefs appeared to enhance the use of Spiritual and Applied Faith Coping Responses among students with high Attitudes that Reflect Resilience, and High Protective Religious Beliefs appeared to protect students from the negative effects of using Non-adaptive Coping Responses.
3. Level of Acculturation was re-conceptualized as “Culturally Salient Religious Beliefs and Practices” has a direct positive effect on Protective Religious Beliefs, both direct and indirect positive effects on select Coping Responses, and an indirect effect on Attitudes that Reflect Resilience.
4. Attitudes that Reflect Resilience vary by class level, but the validity of that relationship was highly questionable. It may be that progressing through school tends to have a positive effect on this outcome, but it may also be that more favorable values on these outcomes enables students to advance in school. There were no direct or indirect relationships of At-Risk status with Attitudes that Reflect Resilience in either model. Program participation was not investigated because the within-group sample size of some groups was too small, and this was not a specific purpose of this study. Finally, self-reported

measures of SES and achievement (GPA and ACT scores) were not investigated because the data were deemed unreliable.

5. The relationship between Attitudes that Reflect Resilience and Coping

Responses may be both unidirectional and reciprocal. This study was unable to determine in which direction the relationships are stronger, and was unable to determine whether the relationships are reciprocal.

CHAPTER VI. SUMMARY AND CONCLUSIONS

Summary

The primary purposes of this study were (1) to examine the relationship between attitudes that reflect resilience and coping among at risk and non-at risk African American college students, (2) to examine the moderating role of three factors that are believed to be protective in times of stress and adversity, and (3) to examine the relationship between levels of acculturation and coping responses, attitudes that reflect resilience, religiosity, spirituality, and core beliefs.

Prior research assessing the relationship between resilience and coping has yielded inconclusive results. For example, Jew, Green and Kroger (1999) generated a hypothesis about the nature of this relationship. Drawing upon the Cognitive Appraisal Theory of Stress and Coping (Lazarus, & Folkman, 1984), Jew et al. defined resilience as a system of beliefs and hypothesized that coping emerges from this system of beliefs. From this hypothesis, they concluded that resilience was causally related to coping, with coping arising from resilience. Jew et al. were able to identify differences in resilience between adolescents who reported being exposed to a high number of risk factors, and adolescents having few or no risk factors, however, they were unable to identify any differences in coping that could be associated with high or low levels of resilience. They concluded that there is a need for additional research on the relationship between coping and resilience.

The current study attempted to further advance our understanding of the relationship between resilience, coping, and protective factors by examining attitudes that

reflect resilience in African American college students attending a predominantly White institution. It differs from previous studies of resilience in that it emphasized attitudes that reflect resilience rather than attempt to measure resilience directly.

The population for this study consisted of 229 African American college students enrolled at Michigan State University during the Spring and Summer 2001 semesters. Four student groups were sampled to create most of the subject pool. They included SUPER, MAGIC, McNair-SROP and the Sports Camp Program. Approximately 13 students from the general population were included in this pool of participants. More than 95 percent of the sample used in this study identified with some religion, primarily Christianity, and approximately half of the participants met the operational definition of “at-risk”.

Seven instruments were used to collect data. The instruments were: (1) the COPE (Carver, Scheier & Weintraub, 1989), (2) the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990), (3) the Multidimensionality of Religiosity Scale (MRS; Levin, Taylor, & Chatters, 1995), (4) the Core Convictions Scale (CCS, developed specifically for this study), (5) the African American Acculturation Scale - Revised (AAAS-R; Klonof & Landrine, 2000), (6) the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994), and (7) a demographics questionnaire developed specifically for this study.

Instruments (except the Core Convictions Scale and the Demographics Survey) were selected if they met the following criterion: (1) they were empirically, theoretically, or conceptually derived with some evidence of reliability and validity, (2) they measured a belief, an attitude, or a behavior that might help explain a cognitive-behavioral

conceptualization of resilience and coping among African American college students, (3) responses could be scaled to be used in correlational analysis and structural equation modeling (SEM); and (4) their instructions were easy to follow.

To gather demographic information, an 11-item demographics questionnaire was developed and used. The information requested included age, gender, race/ethnicity, class level, GPA, ACT score, parental annual income, home environment, reason for coming to MSU, religious preference, and type of high school attended.

The second instrument used was the COPE (Carver, Scheier & Weintraub, 1989). The original 60-item instrument was adapted for this study to identify conceptually distinct coping responses. The items from this scale were combined with items from the Religious Coping Activities Scale (RCAS) and factor analyzed to simplify the analysis, and to create a representative measure of coping for the participants in this study. Coping Responses and Attitudes the Reflect Resilience served as (1) predictor variable and (2) outcome variable in the models generated in this study.

The third instrument used was the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990). The original 29-item scale was adapted for this study to identify three conceptually related but distinct religious coping responses. As previously mentioned, these three Coping Responses were combined with an adaptation of the COPE to simplify the analysis, and to form a representative measure of coping for the participants in this study.

The fourth instrument used was the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994). The original 72-item instrument was adapted for this study to identify

attitudes that reflect resilience. The instrument was scaled down to an 8-item scale consisting of eight items from the general resiliency subscale of the RAS.

The fifth instrument used was the Core Convictions Scale (CCS). This scale was developed specifically for this study, and consisted of ten items that reflect beliefs that are held by African American people about God, faith, and life.

The sixth instrument used in this study was the Multidimensionality of Religiosity Scale (MRS; Levin, Taylor, & Chatters, 1995). Three questions were extracted from the original 16-item instrument and were combined with the ten items from the Core Convictions Scale to create the variable called “Protective Religious Beliefs (PRB).”

The seventh instrument used in this study was the African American Acculturation Scale - Revised (AAAS-R; Klonof & Landrine, 2000). The AAAS-R is a 47-item assessment of how closely an individual identifies with African American culture and race. Nine items from the Religious Beliefs and Practices subscale of this instrument were used to represent Culturally Salient Religious Beliefs and Practices (CSRBP) in this study.

Statistical methods used in this study included (1) Reliability and Exploratory Factor Analysis for scaling instruments, and (2) structural equation modeling and path analysis to derive the final models. Four hypothesis were developed to examine the research questions in this study. A .05 level of significance was used as a guide for all hypothesis testing, but effect sizes were used to interpret the relationships in terms of importance.

Conclusions

Attitudes that Reflect Resilience were defined as beliefs that one can survive and make things better for self and others. This study found a relationship between these attitudes and Adaptive, Spiritual, Applied Faith, Emotional, Non-adaptive, and Despair/doubt coping responses. There was however, no relationship between these attitudes and Humor Coping Responses, and no direct or indirect relationship between Attitudes that Reflect Resilience and risk status. In addition, Protective Religious Beliefs were found to be an important moderator of the relationships between Attitudes that Reflect Resilience and select Coping Responses. Protective Religious Beliefs may enhance the use of Spiritual and Applied Faith Coping Responses among students with high Attitudes that Reflect Resilience, and High Protective Religious Beliefs may protect students from the negative effects of using Non-adaptive Coping Responses

The results of this study inform the research questions as follows:

1. In both the $ARR \rightarrow CR$ and the $CR \rightarrow ARR$ models, Attitudes that Reflect Resilience and Coping Responses were separate but related constructs. There were statistically significant relationships among the Attitudes that Reflect Resilience and select Coping Responses among both At-Risk and Non-At-Risk African American college students. The nature of these relationships among Attitudes that Reflect Resilience and Coping Responses was the same for the At Risk and Non-At-Risk students with the exception on Non-adaptive Coping Responses.
2. Core Beliefs, Religiosity, and Spirituality were combined and re-conceptualized as “Protective Religious Beliefs” and were a statistically

significant moderator of the relationships between Attitudes that Reflect Resilience and select Coping Responses. In particular, Protective Religious Beliefs may enhance the use of Spiritual and Applied Faith Coping Responses among students with high Attitudes that Reflect Resilience, and High Protective Religious Beliefs may be associated with low or no use of Non-adaptive Coping Responses.

3. Level of Acculturation was re-conceptualized as “Culturally Salient Religious Beliefs and Practices” had a direct positive effect on Protective Religious Beliefs, both direct and indirect positive effects on select Coping Responses, and an indirect effect on Attitudes that Reflect Resilience.
4. Attitudes that Reflect Resilience varied by class level, but the validity of that relationship was highly questionable. It may be that progressing through school tends to have a positive effect on this outcome, but it may also be that more favorable values on these outcomes enables students to advance in school. There were no direct or indirect relationships of At-Risk status with Attitudes that Reflect Resilience in either model. Program participation was not investigated because the within-group sample size of some groups was too small. Finally, self-reported measures of SES and achievement (GPA and ACT scores) were not investigated because the data were deemed unreliable.
5. The relationship between Attitudes that Reflect Resilience and Coping Responses may be both unidirectional and reciprocal. This study was unable to determine in which direction the relationships were stronger, and was unable to determine whether the relationships were reciprocal.

Discussion of Results

This study contributes to the field of research on resilience in a number of ways. First, this study further informs the field on the scaling of some instruments considered to be useful in the study of resilience. Second, it provides additional evidence regarding the relationships between Attitudes that Reflect Resilience and Coping Responses particularly as they relate to African Americans. Third, it provides support for Cognitive Appraisal Theory of Stress, Coping and Resilience. Fourth, it raises questions about labeling students as “at-risk”. Finally, it adds empirical evidence for the protective influences of religious beliefs. Each of these will be discussed below.

Instrument scaling

Path analysis requires the use of measures with relatively good psychometric qualities and a clear and substantive rationale for specifying the direction of relationships indicated in the model (Kline, 1998). The use of valid and reliable instruments improves the interpretation of the models. The instruments that were used in this study were scrutinized for their validity and reliability, and data from each instrument were carefully entered and coded for interpretation. Overall, each of the instruments had good reliability and validity indices. The Resiliency Attitudes Scale, the combined COPE – Religious Coping Activities Scale, and the Core Convictions Scale were piloted in this study.

Given concern about the adequacy of the scaling methods used by prior researchers, five of the seven instruments used in this study were subjected to principal components exploratory factor analysis: the COPE (Carver, Scheier & Weintraub, 1989), the Religious Coping Activities Scale (RCAS; Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma & Warren, 1990), the Resiliency Attitudes Scale (RAS; Biscoe & Harris,

1994), the African American Acculturation Scale - Revised (AAAS-R; Klonof & Landrine, 2000), and the Core Convictions Scale (CCS, developed specifically for this study). The demographics survey did not require EFA, and since only three questions from the Multidimensionality of Religiosity Scale (MRS; Levin, Taylor, & Chatters, 1995) were used, it did not require EFA.

Surprisingly, after Exploratory Factor Analysis (EFA), the number of factors for each instrument decreased from the number of expected factors with the exception of the Core Convictions Scale. The reduction in factors may be due to the fact that an outdated rule-of-thumb was used for determining the number of factors when these instruments were created, but this study used a more current rule of thumb that is less susceptible to random variations in error. This reduction in factors assured that in modeling, there was no over-interpretation of the data since there were no empirically unsupported scales represented as important outcomes or predictors.

To fit with existing theory and to redress concerns about being able to measure resilience directly, instruments designed to be a direct measure of resilience were rejected, and a more fitting construct was identified that would still allow the author to investigate the relationships of interest. Hence, a measure of attitudes that reflect resilience (the RAS) was identified and used in the study.

There was considerable concern about the reliability of six of the subscales in the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994) and the concepts that they represent. The reliability on three of the subscales (Insight, Independence, and Relationships) was poor, and on three out of the four remaining subscales (Initiative, Creativity / Humor, and Morality), it was marginal. It is difficult to explain the relatively

low reliabilities on these subscales other than to suggest that they could possibly have been influenced by significant differences between the sample upon which the scale was normed and the sample in this study.

The other major concern with these six subscales is that they did not appear to fit well conceptually with the general resilience subscale. General resilience was defined as the belief that one can survive and make things better for self and others (Biscoe and Harris, 1994). The items that make up this subscale fit well conceptually with this definition – “No matter what happens, if I keep trying I’ll get through it”, and “Even if bad things happen, I can deal with them.”

Items from the remaining six subscales were intended to measure six distinct but related “resiliencies.” Even with reverse scoring, many of these items did not fit well conceptually with the definition of resilience given by Biscoe and Harris (1994).

A rescaling of this instrument was attempted, but no solution was found that made any conceptual sense. It was determined that only the experimental general resiliency subscale was useful to this study. The low reliabilities in the subscales of the Resiliency Attitudes Scale, and the conceptual inconsistency of other possible scaling results suggest the need to examine whether these other “resiliencies” exist at all, and if so, the items measuring them may need to be reworked completely.

Since coping was an important variable in this study, two scales were selected to measure it. Each scale was a valid and reliable measure of coping for the sample. Each instrument was factor analyzed, and the resulting solutions had fewer factors.

Even though the number of factors in the instruments decreased, the instruments sustained their conceptual integrity and reliability. For instance, the Adaptive Coping

items loaded on the correct factor in this sample. The ease of explaining the relationships between subscales in the restructured COPE, for example, provides some strong construct validity evidence for the subscales as used in this sample, and validates the claims of the authors that the instrument measures conceptually distinct sub-constructs of coping.

To make the path analysis less cumbersome, however, items from the two instruments were combined and factor analyzed. These two instruments were successfully merged without changing the meaning of factors, and provided further evidence of its validity. The combined scale contributes to the literature a reliable and valid instrument that allows for the study of much more specific coping behaviors than possible with the instrument used in previous studies of resilience and coping. The combined instrument may be used with populations having similar characteristics to the one used in this study.

Evidence of a Causal Relationship between Attitudes that Reflect Resilience and Coping?

This investigation resulted in the development of two competing models that illustrate the relationship between coping responses and attitudes that reflect resilience.

Regarding interpretation of results from path analysis, Kline (1998) warns

Thus, the interpretation that direct effects in a path model that was not rejected must correspond to causal relations in the real world is typically unwarranted. It is usually only with the accumulation of the following types of evidence that researchers can even begin to think that the results of a path analysis may indicate causality: (1) replication of the model across independent samples; (2) corroborating evidence from experimental studies of variables in the model that are manipulable; and (3) the accurate prediction of the effects of interventions.

Without such evidence, structural models, whether of observed or latent variables, are best seen as “as if” models of causality (pp. 142-143).

While important patterns of relationships were demonstrated in the resultant competing models, this study was unable to definitively determine the direction of the relationships or confirm a causal relationship. It is therefore imperative that researchers continue to investigate the relationship between attitudes that reflect resilience and coping responses. Additional studies may include a larger sample of participants, continue to gather psychometric information using the Resiliency Attitudes Scale (Biscoe & Harris, 1994), and should examine other measures of risk (e.g., social economic status, measures of both dispositional and situational stress, etc.).

Several conclusions about the sample however can be drawn from each model. Both models show that attitudes that reflect resilience and coping responses are related but distinct constructs. This finding is important since it has been suggested in the literature that we do away with the term resilience and instead, use the term “coping with” (Kumpfer, 1999). In addition, both models illustrate that there are gender-based differences in coping responses and a tendency for the at-risk students to use more negative coping responses (i.e., non-adaptive coping and despair/doubt coping) than other students in the study. It is important to note that there were no direct or indirect gender-based differences in attitudes that reflect resilience.

The CR → ARR model shows that Protective Religious Beliefs enhance the relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience. The Protective Religious Beliefs (Core Convictions, Religiosity, and Spirituality) have direct and indirect positive influences on coping behaviors and

Attitudes that Reflect Resilience. The importance of this relationship is even more salient in the CR → ARR model, where Protective Religious Beliefs moderate the relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience. And finally, both models show that Culturally Salient Religious Beliefs and Practices have a significant direct relationship with Protective Religious Beliefs and some Coping Responses.

The lack of a relationship between Attitudes that Reflect Resilience and Humor Coping Responses in each model would be expected as the humorous coping responses often include a form of behavioral and mental disengagement, and dismissal of, or ignoring the seriousness of a real problem. This subscale reflected a similar factor structure as in the original COPE (Carver, Scheier & Weintraub, 1989) and consists of the following items: “I laugh about the situation”, “I make jokes about it”, “I kid around about it”, and “I make fun of the situation.” It makes sense that these items are not related to the belief that one can survive and make things better for self and others.

In the model in which attitudes predict coping responses (ARR → CR), the relationships between Attitudes that Reflect Resilience and Coping Responses were significant for six out of the seven possible coping responses. The p-value for the relationship between Attitudes that Reflect Resilience and Applied Faith Coping Responses was .07. This p-value is just above the acceptable limit for significance ($p < .05$). This barely non-significant p-value could reflect the influence of outliers that were not removed from the data. All other direct and indirect relationships in this model were significant with the exception of the At Risk → Despair/doubt Coping Responses relationship ($p = 0.08$). Here again, outliers that were not removed from the data might

have influenced the level of significance. Also, because of the violation of multivariate normality in this sample, the p-values may be slightly biased.

The mean scores for the coping subscales (see Table 6.) also suggest that the participants in this study tend to use Spiritual, Adaptive, Emotional, Humor and Applied Faith Coping Responses in times of stress and adversity, and that they tend to use Non-adaptive and Despair/doubt Coping Responses least. Of particular interest is the finding that the participants use Spiritual Coping more than any of the other coping responses. This finding corroborates the findings of Oler (1997) and Logan (1980) regarding the role of religious coping among church-going African Americans, and it further substantiates the idea that religiosity and spirituality are important and even salient aspects of life among African American college students attending a PWI, and who identify as Christian.

In the model in which coping responses predict attitudes that reflect resilience ($CS \rightarrow ARR$), the relationships between three coping responses - (1) Adaptive Coping Responses, (2) Despair/doubt Coping Responses, (3) Spiritual Coping Responses, and Attitudes that Reflect Resilience were significant. The relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience was non-significant ($p = 0.27$).

Three variables were identified as possible moderators of the relationship between coping and attitudes that reflect resilience. These included core convictions, religiosity, spirituality, and level of acculturation. Factor analysis of the Core Convictions Scale revealed it to be a valid and reliable measure. Three questions were extracted from the Multidimensionality of Religiosity Scale and were used as an indicator of the depth of one's religious and spiritual conviction. To further simplify the model and the analysis,

these items were combined with the Core Convictions Scale to create a single measure that was renamed the Protective Religious Beliefs Scale. When items from the CCS were combined with items from the MRS scale, and factor analyzed, the resulting scale turned out to have good validity and reliability. Thus, this study contributes to the literature by offering a reliable and valid scale for the measurement of Protective Religious Beliefs. This adapted scale was developed for use with African American populations. Results indicate that the beliefs identified in this scale are really protective. This finding represents another major contribution to the literature.

Level of acculturation was included in this study in an attempt to explain variance that was not accounted for by the other variables in this model. However, factor analysis of the acculturation scale resulted in a six-factor solution that did not make sense conceptually. The validity of the solution was questionable. Therefore, all items were dropped from the scale with the exception of nine items from the Religious Beliefs and Practices subscale of the AAAS-R. This subscale was factor analyzed and it yielded a valid and reliable scale. Because the items in the scale were written to represent beliefs and practices that are important in African American culture, it was renamed the Culturally Salient Beliefs and Practices Scale (CSRBP). This adaptation from the AAAS-R scale represents another contribution to the literature as the results show that it has important direct and indirect effects on coping responses, protective religious beliefs, and attitudes that reflect resilience for this population.

Support for Cognitive Appraisal Theory

This study offers support for the Cognitive Appraisal Theory of Stress, Coping and Resilience (Jew, Green & Kroger, 1999). Although the two final models differ in

important ways, each could be explained using Cognitive Appraisal Theory of stress and coping. In the ARR → CR model, Attitudes that Reflect Resilience predict six of the seven Coping Responses whereas in the CR → ARR model, only four of the Coping Responses predicted Attitudes that Reflect Resilience. In each case, Non-adaptive and Despair/doubt Coping Responses have an inverse relationship with Attitudes that Reflect Resilience.

Model-fitting data indicated that each model was equally probable. It is conceivable and even plausible then, that primary and secondary appraisal processes (1) first follow the paths in the ARR → CR model, and (2) once a coping response is determined, during the reappraisal stage of coping, Emotional and Applied Faith Coping Responses drop out, and the individual's coping responses follow the paths in the CR → ARR model - Spiritual, Adaptive, Despair/doubt and Non-adaptive Coping Responses shape or influence Attitudes that Reflect Resilience.

Re-conceptualization of Risk

Since there was no direct or indirect relationship between risk status and Attitudes that Reflect Resilience, it was not possible to say that one group was more or less resilient than the other. However, the data did show that the average response on the Resiliency Attitudes Scale (containing the eight items from the General Resiliency subscale in the original RAS) was “agree” to “strongly agree.” This suggests that at-risk and non-at-risk students may be more similar than we think. This observation may have important implications for how Universities define risk and the assumptions made about students that present with academic profiles that define them as being at-risk.

Membership as an “at risk” student is sometimes interpreted as meaning that one has deficiencies in one’s academic readiness to pursue a college education. This often leads to the assumption that an “at risk” student lacks the tenacity to survive the challenges associated with this pursuit. Results from this study show however, that there was no direct or indirect relationship between risk status and attitudes that reflect resilience. The majority of students (n=218) who participated in this study tended to hold beliefs that they can survive and make things better for themselves and others.

Given the results of this study, regarding students who are considered at-risk, and the fact that there is a stigma associated with such a label, greater attention should be placed on reconsidering this concept and how it may affect student performance. The work of Steele (1997) may be helpful in this regard. Steele (1997) suggests that students who are labeled “at-risk” may be subject to a phenomenon he calls “stereotype threat”. This type of threat places such students at risk for conforming to negative stereotypes.

Evidence for the Protective Influence of Religious Beliefs

The models that were developed in this study clearly suggest that Protective Religious Beliefs may truly be “protective.” These beliefs are thought to be protective in the sense that they may afford some degree of calm or assurance that even in the midst of adversity or trouble there is hope. Instructions for the Religious Coping Activities Scale asked participants to think about and describe in one sentence, the most serious negative event they have experienced in the past year. Participants identified a host of serious and negative events. These events were primarily situational. Jenkins (1995) suggests that African American people have a characteristic way of approaching problems or negative life experiences that reflects their ethos, values, beliefs and practices. This position is

corroborated in the work of Aldwin (1994) who suggests that African American people cope in a culturally-prescribed manner. This way of coping may reflect ethos, and beliefs that are unique to the particular culture or ethnic/social group. These beliefs and ethos may be used as a framework for deciding how to best respond to stressful or adverse conditions.

The models developed from the data generated in this study clearly demonstrate that Protective Religious Beliefs were involved in the coping responses associated with the negative events they identified, and in the attitudes the students developed in response to these situations. In both models that relationship was medium-to-strong.

In the model showing Coping Responses as predictors of Attitudes that Reflect Resilience, the Protective Religious Beliefs tended to moderate the small inverse relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience. The effect size for the moderation of this relationship was larger than the effect size of the direct relationship between Non-adaptive Coping Responses and Attitudes that Reflect Resilience. This suggests that even when the students used Non-Adaptive Coping Responses, the Protective Religious Beliefs cancelled the negative effect of the Non-adaptive Coping Responses.

Implications of the Study

This study was not able to confirm a causal relationship between resilience and coping as hypothesized in the work of Jew, Green and Kroger (1999). However, it does offer preliminary data that could be used to inform and develop future studies of coping and resilience in African American college students. Perhaps the most important

implication of this study is for researchers to continue to examine the relationship between coping and resilience as there are yet many unanswered questions regarding the nature of this relationship. This study has other important research, theoretical, and practical implications, which will be discussed next.

Research Implications

As previously mentioned, there is a need for continued research on the “causal” relationship between Attitudes that Reflect Resilience and Coping Responses. This includes path analysis of the unidirectional and reciprocal models. To aid in such efforts, additional work is needed for improving the reliability and validity of direct and inferred measures of resilience as well as instruments used to measure related constructs. Most importantly, investigators must exercise more care in making sure that resilience is appropriately operationalized, and that the operationalization fits the design of the study. Otherwise, as Glantz & Johnson (1999) pointed out, we will continue to have difficulty integrating research across studies. Future research efforts addressing causality should be longitudinal, and should include at least three groups of students—those being trained for coping responses, those being trained for Attitudes that Reflect Resilience, and those receiving no training (control group).

This study was unable to answer whether attitudes that reflect resilience varied by class level, gender, SES, program participation, and risk status. To simplify the analysis, a decision was made early in the study to broadly categorize students as At Risk and Non-At Risk. It was later realized that there were insufficient and uneven numbers of participants from various programs to do a between program analysis of attitudes that reflect resilience or coping responses. In this way, program sample size served as

somewhat of a limitation in this study. Therefore, future research should include a larger sample size, a re-conceptualization of risk since the conceptualization of risk used in this study had no effect on the relationships between coping responses and attitudes that reflect resilience, and an emphasis on differences by class level. This would include more reliable measures of SES, and a larger sample of participants from each program. In addition, this study looked at both dispositional coping responses (the COPE) and situational coping responses (RCAS), but did not separate them in the analysis: they were joined into a general coping response framework. There was adequate empirical evidence that they worked well this way, but it may be important to make this distinction.

This study investigated only dispositional attitudes that reflect resilience. It may also be important to distinguish between dispositional and situational attitudes that reflect resilience. It may be that the relationships between coping responses and attitudes that reflect resilience depend upon the combination of situational versus dispositional coping response and attitudes that reflect resilience. Finally, it may not be important to make this distinction at all for either attitudes that reflect resilience or for coping skills. Figure 12. shows with the solid lines what was done in this study, and with the dashed lines what remains to be investigated.

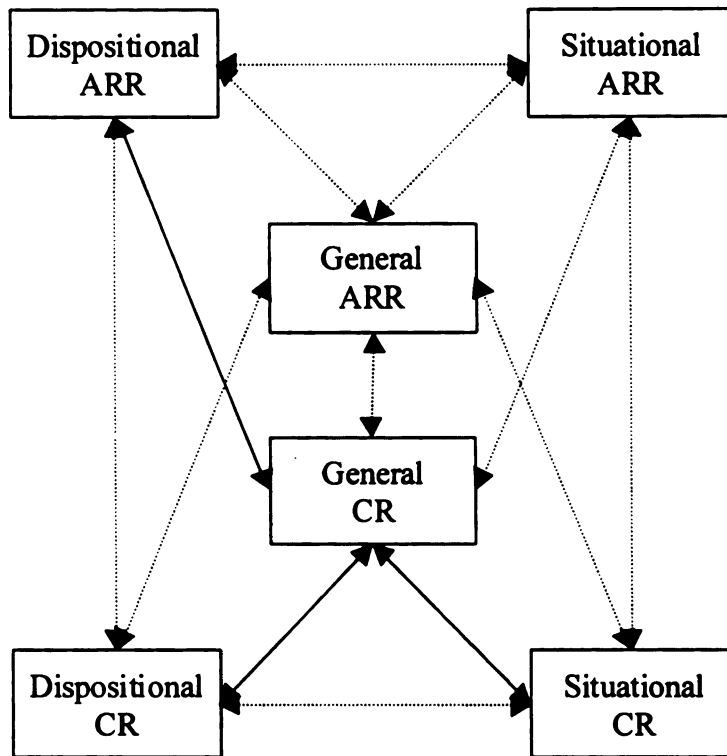


Figure 12. Schema of relationships investigated (solid lines) and not investigated (dashed lines) in this study.

Finally, a brief comment needs to be made regarding the use of the Resiliency Attitudes Scale (RAS; Biscoe & Harris, 1994) rather than the Resilience Scale (Jew, Green & Kroger, 1999). The RAS was used rather than the scale developed by Jew, Green and Kroger(1999) because it was less costly to do so, and because of its potential for informing an intervention currently being utilized with a group of students who present as “at-risk”. The results from this study suggest a shift away from fostering the seven Resiliencies described in Wolin and Wolin (1993) towards fostering the general resiliencies identified by Biscoe and Harris (1994).

Theoretical Implications

Though widely considered a fixed personality trait and / or dimension, contemporary thinking in the social sciences describes resilience as a multidimensional and mutable process (Kumpfer, 1999; Glantz & Johnson, 1999; Rutter, 1987). After reviewing the literature and conducting this study, I would propose that resilience manifests itself in one's personality and that it is a process. I therefore would define it as the process wherein a person or persons utilize certain skills and abilities to regain and sustain normal or near-normal and competent psychological, emotional, social, and physical functioning during or after exposure to chronic or acute stressors or adversity.

The Attitudes that Reflect Resilience construct consisted of eight items from the General Resilience subscale in the original Resilience Attitudes Scale (Biscoe & Harris, 1994). The remaining items were dropped from the scale because they did not fit conceptually with this subscale and the factor loadings for the solution generated from factor analysis of the RAS was inconsistent with the loadings described in the manual. The results from this factor analysis are difficult to explain. One possible explanation is that the original RAS was developed for, and normed upon a substance abuse and prison population. It was piloted on a non-substance abusing, non-prison population for the first time in this study. The results in this study do not necessarily mean that Wolin and Wolin's (1993) theory of The Seven Resiliencies is in error, but may also mean that the items in the scale developed by Biscoe and Harris (1994) may require re-working or revision in order to apply to the general population. It may also be that this theory of resiliencies is inappropriate outside the population on which the instrument was normed.

The General Resilience subscale was added to the RAS as an eighth resiliency by Biscoe and Harris (1994). The results from the analysis of the General Resilience subscale in this study suggest that it has good validity and reliability. The ASPIRE Incorporated TRIO training team included spirituality as an addition to the list of Resiliencies identified in Wolin and Wolin (1993). Results from this study cannot confirm that spirituality should be considered a reflection of resiliency, but it does suggest that certain religious beliefs can have a protective or enhancing effect on attitudes that reflect resilience. This protective or enhancing effect provides a rationale for studying, if not evidence of, spirituality as a reflection of resiliency.

Practical Implications

Feagin, Vera and Imani (1996) identify a number of factors that serve as serious challenges for African American students attending White institutions. These challenges are believed to have a direct effect upon attrition rates among this population. Research is therefore needed to further identify and study the factors that offer the greatest amount of protection from the deleterious effects of stress among African American college students attending White institutions.

Richardson and June (1997) indicate that African American college students attending predominantly White schools tend to seek out the Black Church for spiritual edification, social and emotional support, guidance, and other important needs. They indicate that identifying with the church can appropriately reinforce an individual's moral and ethical belief system. More than 95 percent of the participants in this study report some involvement in religion. This study found that students who identified more with religion or spirituality tended also to use more adaptive coping responses and tended to

have greater attitudes that reflect resilience. Together with the findings from this study regarding the protective influences of religion, spirituality and core convictions, these findings suggests opportunities for partnerships with local African American churches and religious institutions in providing the needed types of social, emotional, and spiritual support to African American college students attending predominantly White institutions.

In addition to fostering attitudes that reflect resilience as a strategy for preventing drop out, findings from this study suggest that using academic support programs to teach coping skills may be equally or even more effective. The results were not definitive in this regard. Additional efforts should be made towards investigating any relationship between coping responses (such as self-agency, self-efficacy, persistence, and others), and attitudes that reflect resilience. Use of longitudinal studies may aide in assessing the effects of teaching coping responses on resilience as well as on the effects of teaching attitudes that reflect resilience on coping responses.

This study found that students operationally defined as at-risk tended to use more of the negative coping behaviors (i.e. Non-adaptive and Despair/doubt Coping Responses) than other students. These behaviors included such things as consumption of alcohol and denial that a problem exists. This finding provides valuable information for counselors and educators by suggesting that their interventions with this population should include greater drug and alcohol use prevention education as well as assertiveness training.

While not specifically addressed in this study, certain assumptions come with identifying a student as “at-risk”. Typically, when we think of a person as being “at-risk”, we tend to think of them to some extent, as being deficient, or challenged. In this study,

the designation “at risk” was given to those who were academically disadvantaged, first generation college students, and/or low-income. The data show that more than ninety percent of the students in this study agree to strongly agree with most of the attitudes that reflect resilience. By inference, this suggests that there is not much difference between the at-risk students and the non-at-risk students in terms of attitudes that reflect resilience. This result raises questions about how we think about at-risk students. It may be that at-risk status would be more adequately measured by attitudes that reflect resilience, by typical coping responses, or by factors that predict drop out.

Finally, there is much work to be done in trying to construct a link between practice and research. The results from this study suggest the need for additional work towards understanding how to integrate psychology and religion. These findings suggest that programs that educate and train counselors and psychologists pay greater attention to and exercise sensitivity towards the role of religion, spirituality, and core convictions in the work done with African American college students.

Limitations of the Study

Several of the scales in this study were piloted for the first time with an African American college student population. As such, findings from this study may not generalize to other populations. There is therefore a need for researchers to use these scales with other African American populations so that we may add to the validity, reliability, and generalizability of findings from these scales in this population.

The Core Convictions Scale and the Levels of Acculturation Scale were developed for use with an African American population specifically. As such, it may not be possible to replicate this study with non-African American populations. New versions

or revisions of these scales would need to be developed to allow for replicating this study with different populations.

Cross-sectional resilience research has been criticized in the literature; especially since it has been hypothesized that resilience may actually be a multidimensional, longitudinal process that has meaning only in the context of a stressful or adverse situation or condition. This study attempted to redress this concern by using an inferred measure of resilience that was designed to assess attitudes that reflect resilience. The process of resilience can only be analyzed in a longitudinal context.

As shown in Figure 12, the nature of the relationships between coping responses and attitudes that reflect resilience may change depending on the combination of dispositional versus situational responses and attitudes being investigated. This study informs only three pieces of the puzzle (the solid lines in Figure 12), but leaves unscrutinized some important remaining pieces (the dashed lines in Figure 12). Additionally, it is not yet clear whether there is a need to separate attitudes that reflect resilience and coping responses into situational versus dispositional types.

Another implication of this study is the importance of researchers exercising care in the construction of ethnically and culturally relevant psychometric instruments. This is an especially important concern in survey research. The interpretability of the responses may be diminished or even made impossible when the ethos, values and beliefs of the persons responding to survey questions are not represented in the responses. This often results in forced choices and perhaps worthless data.

Finally, because of violations of the assumption of multivariate normality in the data, the p-values for the relationships in the models may be biased. Removing all

offending outliers would have biased the data too much to make the results useful.

Therefore, effect sizes were used for interpreting the models with no strict understanding of which relationships were truly statistically significant.

APPENDICES

APPENDIX A. COPE EFA Technical Appendix

Appendix A: COPE EFA Technical Appendix

Table 12. contains the factor-loading matrix resulting from the six-factor, orthogonally rotated solution. The individual factors are denoted by boxes around the items forming them, and important cross-loadings are presented in boldface. Note that there is relatively little important cross-loading of items on multiple factors. This supports the decision to assume that responses to each item are influenced by only a single factor.

Table 12. Factor loading matrix for the COPE.

Item	Factor					
	1	2	3	4	5	6
32	0.72	-0.19	0.17	-0.06	0.06	0.06
56	0.70	-0.08	0.18	-0.01	-0.06	0.12
19	0.67	-0.18	0.18	0.07	0.09	-0.12
42	0.65	0.10	-0.08	-0.02	0.08	0.11
58	0.64	-0.20	0.10	-0.16	0.14	0.13
39	0.64	-0.26	0.09	0.01	0.05	0.23
29	0.55	0.04	0.00	0.08	0.28	0.16
5	0.53	-0.26	0.16	0.01	0.05	-0.06
25	0.52	-0.07	0.04	0.09	-0.05	0.18
30	0.52	-0.13	0.37	0.10	0.04	-0.01
41	0.51	0.01	-0.15	0.01	0.21	0.10
38	0.48	-0.12	-0.01	0.20	0.30	0.30
49	0.48	-0.02	0.08	0.12	0.17	0.31
14	0.47	-0.22	0.39	0.13	0.05	-0.04
15	0.46	0.09	0.04	0.02	-0.01	0.04
59	0.45	-0.32	0.24	0.02	0.28	0.23
1	0.43	-0.32	-0.06	0.11	0.27	0.09
47	0.38	0.06	0.17	0.01	-0.01	0.33
33	0.37	0.11	0.10	0.11	0.01	0.09
10	0.37	0.07	-0.24	0.10	0.18	-0.04
55	0.36	0.16	0.15	0.12	-0.19	0.01
35	0.11	0.83	-0.06	-0.04	-0.11	-0.16
53	0.10	0.83	-0.07	-0.06	-0.12	-0.12
26	0.08	0.75	-0.07	-0.06	-0.11	-0.08
12	-0.04	0.71	-0.11	-0.11	-0.22	-0.17
27	-0.04	0.67	0.20	0.15	0.07	-0.10
40	-0.08	0.64	0.05	0.26	-0.08	0.04
24	-0.12	0.57	-0.02	0.05	-0.11	0.05
9	-0.17	0.56	0.06	0.07	-0.09	0.16
37	-0.20	0.48	0.08	0.06	-0.04	0.29
57	-0.06	0.48	-0.02	0.21	-0.04	0.16

6	-0.01	0.43	0.13	0.06	0.04	0.02
51	-0.15	0.40	0.07	0.20	0.14	0.24
43	-0.10	0.30	0.23	0.12	0.05	0.21
52	0.28	-0.08	0.73	-0.02	0.15	0.00
28	0.04	0.01	0.69	-0.19	0.00	-0.10
3	-0.15	0.23	0.67	-0.13	-0.04	0.02
23	0.17	-0.08	0.66	0.04	0.13	0.02
11	0.26	-0.07	0.66	-0.05	0.06	-0.10
46	0.05	0.19	0.63	-0.13	-0.03	-0.03
4	0.20	-0.12	0.62	0.02	0.09	-0.09
34	0.16	0.10	0.61	-0.02	0.20	0.08
45	0.41	-0.08	0.53	0.02	-0.06	0.11
17	-0.06	0.09	0.51	0.03	-0.01	0.15
31	-0.12	0.22	0.41	0.25	-0.08	-0.02
16	-0.01	0.07	0.27	0.21	-0.04	0.17
50	0.13	0.15	-0.04	0.84	-0.06	0.06
36	0.08	0.19	0.01	0.84	0.01	0.10
20	0.16	0.06	-0.07	0.84	-0.03	0.01
8	0.15	0.07	-0.12	0.77	0.02	0.00
18	0.14	-0.21	0.12	-0.01	0.81	0.03
48	0.20	-0.05	0.02	-0.14	0.80	0.03
60	0.13	-0.01	0.17	-0.04	0.75	-0.01
7	0.10	-0.33	0.05	0.09	0.74	0.00
54	0.21	-0.04	0.03	0.02	0.03	0.68
21	0.07	0.11	-0.14	-0.04	0.02	0.65
13	0.31	0.02	-0.01	0.07	-0.01	0.60
44	0.32	-0.36	0.04	-0.06	0.10	0.56
22	0.14	0.11	-0.01	0.09	-0.06	0.36
2	0.11	-0.12	0.20	0.04	0.08	0.25

There were a few items that did not have strong factor loadings for any factor, or that had cross-loadings nearly as strong as the primary loading. These items were investigated individually to determine whether the item was conceptually congruent with any factors, and if so, which factor the item should be a part of. The items contents of all items loading on a single factor were inspected for shared meaning to create labels for each factor. The labels created and the item contents of each item contributing to each factor are presented below, along with the decisions made concerning items that did not fit well into any factor.

COPE#1 – Adaptive Coping Responses ($\alpha = 0.89$)

32 – I try to come up with a strategy about what to do.

56 – I think hard about what steps to take.

- 19 – I make a plan of action.
- 42 – I try hard to prevent other things from interfering w/ my efforts at dealing w/ this.
- 58 – I do what has to be done, one step at a time.
- 39 – I think about how I might best handle the problem.
- 29 – I try to see it in a different light, to make it seem more positive.
- 05 – I concentrate my efforts on doing something about it.
- 25 – I take additional action to try to get rid of the problem.
- 30 – I talk to someone who could do something concrete.
- 41 – I make sure not to make matters worse by acting too soon.
- 38 – I look for something good in what is happening.
- 49 – I force myself to wait for the right time to do something.
- 14 – I talk to someone to find out more about the situation.
- 15 – I keep myself from getting distracted by other thoughts or activities.
- 59 – I learn something from the experience.
- 01 – I try to grow as a person as a result of the experience.
- 47 – I take direct action to get around the problem.
- 33 – I focus on dealing with this problem, and if necessary, let other things slide.
- 10 – I restrain myself from doing anything too quickly.
- 55 – I put aside other activities in order to concentrate on this.

COPE#2 – Less Useful Coping Responses ($\alpha = 0.83$)

- 35 – I drink alcohol or take drugs, in order to think about it less.
- 53 – I use alcohol or drugs to help me get through it.
- 26 – I try to lose myself for a while by drinking alcohol or taking drugs.
- 12 – I use alcohol or drugs to make myself feel better.
- 27 – I refuse to believe that it has happened.
- 40 – I pretend that it hasn't happened.
- 24 – I just give up trying to reach my goal.
- 09 – I admit to myself that I can't make myself feel better.
- 37 – I give up the attempt to get what I want.
- 06 – I say to myself "this isn't real."
- 51 – I reduce the amount of effort I'm putting into solving the problem.
- 43 – I go to the movies or watch TV, to think about it less.

(Item 57 was deleted from this factor)

57 – I act as though it hasn't even happened (Denial/EFC)

COPE#3 – Help-Seeking Coping Responses ($\alpha = 0.85$)

- 52 – I talk to someone about how I feel.
- 28 – I let my feelings out.
- 03 – I get upset and let my emotions out.
- 23 – I try to get emotional support from friends or relatives.
- 11 – I discuss my feelings with someone.
- 46 – I feel a lot of emotional distress and I find myself expressing these feelings a lot.
- 04 – I try to get advice from someone about what to do.
- 34 – I get sympathy and understanding from someone.

45 – I ask people who have had similar experiences what they did.

17 – I get upset, and am really aware of it.

(Items 16 and 31 were deleted from this factor)

16 – *I daydream about things other than this. (Mental Disengagement /Less Useful Cope)*

31 – *I sleep more than usual. (Mental Disengagement /Less Useful Cope)*

COPE#4 –Humor Coping Responses ($\alpha = 0.89$)

50 – I make fun of the situation.

36 – I kid around about it.

20 – I make jokes about it.

08 – I laugh about the situation.

COPE#5 –Religion Coping Responses ($\alpha = 0.84$)

18 – I seek God's help.

48 – I try to find comfort in my religion.

60 – I pray more than usual.

07 - I put my trust in God

COPE#6 – Acceptance / Restraint Coping Responses ($\alpha = 0.71$)

54 – I learn to live with it.

21 – I accept that this happened and that it cannot be changed.

13 – I get used to the idea that it happened.

44 – I accept the reality of the fact that it happened.

(Items 2 and 22 were deleted from this factor)

2 – *I turn to work or other substitute activities to take my mind off things (Mental Dis.)*

22 – *I hold off doing anything about it until the situation permits. (Restraint Cope)*

APPENDIX B. RCAS EFA Technical Appendix

Appendix B: RCAS EFA Technical Appendix

Table 13. contains the factor-loading matrix resulting from the three-factor, orthogonally rotated solution. The individual factors are denoted by boxes around the items forming them, and important cross-loadings are presented in boldface.

Table 13. Factor loading matrix for the RCAS.

Item	Component		
	1	2	3
27	0.84	0.26	0.02
28	0.78	0.29	-0.03
16	0.78	0.27	-0.13
19	0.73	0.16	-0.12
22	0.73	0.26	-0.06
26	0.72	0.10	0.21
10	0.70	0.34	-0.02
12	0.69	0.29	0.07
21	0.68	0.42	-0.08
4	0.66	0.18	-0.07
15	0.65	0.23	-0.16
14	0.58	0.21	0.32
29	0.49	0.45	0.22
17	0.45	0.38	-0.01
20	0.18	0.82	0.03
8	0.17	0.80	0.05
11	0.24	0.77	0.01
5	0.33	0.70	-0.02
1	0.19	0.63	0.08
6	0.22	0.62	0.00
18	0.51	0.59	-0.04
13	0.41	0.43	0.34
3	0.18	0.26	0.08
25	0.23	-0.18	0.71
24	-0.24	0.05	0.62
9	0.17	0.08	0.59
23	-0.16	0.19	0.54
2	-0.28	-0.08	0.51
7	0.33	0.36	0.39

Item 7 (Asked for a miracle) was removed from the scale because it had approximately equal loadings on all three factors, and did not fit neatly into any of the three factors.

Items that Loaded on Factors 1-3 in the RCAS Scale:

RCAS#1 – Spiritual Coping Responses ($\alpha = .93$)

- 04 – Trusted that God would not let anything terrible happen to me.
- 10 – Experienced God's love and care.
- 12 – Realized God was trying to strengthen me.
- 14 – Confessed my sins.
- 15 – I let God solve my problems for me.
- 16 – In dealing with the problem, I was guided by God.
- 17 – Realized that I did not have to suffer since Jesus suffered for me.
- 19 – Took control over what I could, and gave the rest up to God.
- 21 – My faith showed me different ways to handle the problems.
- 22 – Accepted that the situation was not in my hands, but in the hands of God.
- 26 – Found the lesson from God in the event.
- 27 – God showed me how to deal with the situation.
- 28 – Used my faith to help me decide how to cope with the situation.
- 29 – Prayed or read the Bible to keep my mind off of my problems.

RCAS#2 – Applied Faith Coping Responses ($\alpha = .88$)

- 01 – Received support from clergy.
- 03 – Focused on the world-to-come rather than the problems of this world.
- 05 – Attended religious services or participated in religious rituals.
- 06 – Led a more loving life.
- 08 – Participated in church groups.
- 11 – Received support from other members of the church.
- 13 – Tried to be less sinful.
- 18 – Used Christ as an example of how I should live.
- 20 – Provided help to other church members.

RCAS#3 – Despair/Doubt Coping Responses ($\alpha = .60$)

- 02 – Felt angry with or distant from God.
- 09 – Asked God why it happened.
- 23 – Felt angry with, or distant from the members of the church.
- 24 – Questioned my religious beliefs and faith.
- 25 – Bargained with God to make things better.

APPENDIX C. Combined COPE and RCAS EFA Technical Appendix

Appendix C: Combined COPE and RCAS EFA Technical Appendix

Table 14 contains the factor-loading matrix resulting from the seven-factor, orthogonally rotated solution for the combined COPE/RCAS. Boxes around the items forming them denote the individual factors, and important cross-loadings are presented in boldface. Note that there is relatively little important cross-loading of items on multiple factors. This supports the decision to assume that responses to each item are influenced by only a single factor.

Table 14. Complete Combined COPE and RCAS EFA factor loading matrix.

Item	Component							Item	Component						
	1	2	3	4	5	6	7		1	2	3	4	5	6	7
COPE07	0.63	0.08	-0.44	0.08	0.09	-0.05	0.06	COPE06	0.05	-0.10	0.33	0.12	0.18	0.17	0.22
COPE18	0.65	0.16	-0.34	0.18	0.02	-0.01	0.07	COPE09	-0.07	-0.11	0.46	0.03	0.15	-0.06	0.33
COPE48	0.65	0.16	-0.26	0.04	-0.09	0.11	0.09	COPE12	-0.04	-0.16	0.83	-0.05	-0.05	-0.01	-0.04
COPE60	0.60	0.09	-0.17	0.12	0.01	0.11	0.04	COPE24	-0.09	-0.11	0.55	0.07	0.13	-0.08	0.01
RCAS03	0.26	0.19	0.21	-0.01	0.21	0.13	0.06	COPE26	0.00	0.01	0.75	-0.12	0.02	-0.01	0.11
RCAS04	0.63	0.05	0.05	-0.01	0.06	0.01	-0.10	COPE27	0.06	-0.09	0.49	0.22	0.21	0.10	0.40
RCAS05	0.58	0.10	0.02	-0.01	-0.06	0.47	0.03	COPE35	0.03	-0.02	0.84	-0.06	0.02	0.08	0.13
RCAS10	0.75	0.14	0.05	-0.01	0.02	0.08	-0.01	COPE40	-0.04	-0.08	0.52	0.12	0.33	-0.03	0.18
RCAS12	0.75	0.05	0.07	0.06	-0.06	0.05	0.06	COPE53	0.04	0.00	0.87	-0.08	-0.05	0.06	0.07
RCAS13	0.48	0.09	0.01	-0.16	-0.07	0.36	0.30	COPE03	-0.06	-0.13	0.18	0.66	-0.15	0.02	0.17
RCAS14	0.57	0.10	0.03	-0.06	0.00	0.08	0.23	COPE04	0.02	0.13	-0.18	0.62	0.06	0.13	0.06
RCAS15	0.71	0.10	-0.01	0.12	0.08	-0.04	-0.16	COPE11	0.05	0.23	-0.09	0.70	-0.01	0.07	-0.15
RCAS16	0.77	0.14	-0.03	0.07	-0.04	0.04	-0.20	COPE17	-0.02	0.01	0.09	0.45	0.00	-0.07	0.22
RCAS17	0.54	0.02	0.10	-0.12	0.07	0.13	0.05	COPE23	0.07	0.15	-0.09	0.67	0.11	-0.01	-0.07
RCAS18	0.66	0.05	0.04	-0.02	-0.02	0.37	-0.04	COPE28	-0.02	0.04	0.03	0.69	-0.23	0.10	0.02
RCAS19	0.70	0.09	-0.03	-0.01	0.01	-0.04	-0.12	COPE34	0.22	0.08	0.13	0.64	0.07	-0.07	0.01
RCAS21	0.77	0.25	-0.01	0.05	-0.01	0.17	-0.08	COPE45	-0.04	0.46	-0.11	0.47	0.06	0.05	0.09
RCAS22	0.79	-0.03	0.01	0.04	-0.03	-0.07	-0.07	COPE46	-0.07	0.04	0.08	0.62	-0.13	-0.03	0.23
RCAS26	0.65	0.11	0.00	-0.03	-0.03	-0.13	0.16	COPE52	0.13	0.24	-0.07	0.78	0.06	0.03	-0.12
RCAS27	0.83	0.17	-0.03	0.06	-0.04	0.01	0.00	COPE08	0.02	0.17	0.00	-0.08	0.76	-0.01	0.08
RCAS28	0.80	0.09	-0.09	0.04	-0.06	0.07	-0.07	COPE20	0.00	0.15	0.08	0.02	0.83	0.00	0.01
RCAS29	0.59	-0.07	-0.03	-0.01	-0.03	0.33	0.17	COPE36	-0.04	0.13	0.15	0.00	0.82	-0.05	0.12
COPE01	0.18	0.47	-0.34	0.00	0.09	0.13	-0.08	COPE50	-0.02	0.15	0.17	-0.07	0.83	-0.04	0.00
COPE05	0.16	0.55	-0.08	0.23	-0.05	0.04	-0.13	COPE57	-0.17	-0.01	0.29	0.00	0.29	0.17	0.11
COPE10	0.13	0.32	0.07	-0.17	0.13	0.05	-0.20	COPE21	0.05	0.25	0.02	-0.10	0.11	-0.44	0.07
COPE13	0.11	0.46	0.12	0.06	0.10	-0.43	0.05	RCAS01	0.35	0.05	-0.05	0.11	-0.01	0.49	0.07
COPE14	-0.03	0.45	-0.20	0.39	0.15	0.00	-0.13	RCAS06	0.35	0.23	0.00	-0.01	0.09	0.48	-0.04
COPE15	0.01	0.43	0.09	0.06	0.14	0.03	-0.07	RCAS08	0.44	0.09	0.07	0.02	0.00	0.62	0.02
COPE19	0.08	0.64	-0.13	0.12	0.06	0.18	-0.06	RCAS11	0.48	0.09	-0.02	0.10	0.09	0.58	0.05
COPE25	0.00	0.60	0.02	0.08	-0.01	-0.11	0.07	RCAS20	0.47	0.11	0.16	0.04	0.12	0.59	-0.01
COPE29	0.24	0.54	-0.12	0.01	0.18	0.06	0.02	COPE37	-0.03	-0.11	0.34	0.06	0.04	-0.12	0.34
COPE30	0.13	0.50	-0.12	0.35	0.12	0.07	-0.06	COPE43	0.05	0.05	0.17	0.03	0.07	-0.09	0.32
COPE32	0.07	0.75	-0.14	0.08	-0.12	0.14	0.06	COPE51	0.04	-0.07	0.26	-0.04	0.21	-0.02	0.40

COPE33	-0.03	0.41	-0.01	-0.08	0.13	0.00	0.11	RCAS02	-0.40	-0.04	-0.02	0.00	0.07	0.04	0.41
COPE38	0.29	0.53	-0.19	0.00	0.27	0.01	0.03	RCAS09	0.11	0.07	0.05	0.13	-0.10	0.10	0.52
COPE39	0.12	0.70	-0.15	0.12	0.00	0.01	-0.20	RCAS23	-0.02	0.02	0.12	0.03	0.12	0.11	0.57
COPE41	0.23	0.45	0.08	-0.11	0.11	0.00	-0.14	RCAS24	-0.18	0.03	0.09	-0.05	0.06	0.07	0.70
COPE42	0.06	0.67	-0.02	-0.07	0.03	0.11	0.11	RCAS25	0.14	-0.11	0.00	0.08	-0.09	-0.20	0.59
COPE44	0.21	0.51	-0.32	0.02	-0.10	-0.22	-0.16								
COPE47	0.05	0.45	0.04	0.14	-0.02	-0.12	0.20								
COPE49	0.20	0.51	-0.02	0.04	0.12	-0.23	0.06								
COPE54	0.11	0.42	-0.06	0.02	0.04	-0.33	0.10								
COPE55	-0.09	0.36	0.19	0.11	0.15	0.05	-0.01								
COPE56	0.06	0.70	0.02	0.18	-0.09	0.00	-0.04								
COPE58	0.15	0.67	-0.14	0.07	-0.17	0.00	-0.10								
COPE59	0.28	0.51	-0.38	0.21	0.02	-0.02	0.00								

Items that Loaded on Factors 1-7 in the Integrated COPE and RCAS Scale:

Factor #1 - Religious Coping:

- C07 - I put my trust in God
- C18 - I seek God's help.
- C48 - I try to find comfort in my religion.
- C60 - I pray more than usual.
- R03 - Focused on the world-to-come rather than the problems of this world.
- R04 - Trusted that God would not let anything terrible happen to me.
- R05 - Attended religious services or participated in religious rituals.
- R10 - Experienced God's love and care.
- R12 - Realized God was trying to strengthen me.
- R13 - Tried to be less sinful.
- R14 - Confessed my sins.
- R15 - I let God solve my problems for me.
- R16 - In dealing with the problem, I was guided by God.
- R17 - Realized that I did not have to suffer since Jesus suffered for me.
- R18 - Used Christ as an example of how I should live.
- R19 - Took control over what I could, and gave the rest up to God.
- R21 - My faith showed me different ways to handle the problems.
- R22 - Accepted that the situation was not in my hands, but in the hands of God.
- R26 - Found the lesson from God in the event.
- R27 - God showed me how to deal with the situation.
- R28 - Used my faith to help me decide how to cope with the situation.
- R29 - Prayed or read the Bible to keep my mind off of my problems.

Factor #2 - Adaptive Coping:

- C01 - I try to grow as a person as a result of the experience.
- C05 - I concentrate my efforts on doing something about it.
- C10 - I restrain myself from doing anything too quickly.
- C13 - I get used to the idea that it happened.
- C14 - I talk to someone to find out more about the situation.
- C15 - I keep myself from getting distracted by other thoughts or activities.

C19 – I make a plan of action.
C25 – I take additional action to try to get rid of the problem.
C29 – I try to see it in a different light, to make it seem more positive.
C30 – I talk to someone who could do something concrete.
C32 – I try to come up with a strategy about what to do.
C33 – I focus on dealing with this problem, and if necessary, let other things slide.
C38 – I look for something good in what is happening.
C39 – I think about how I might best handle the problem.
C41 – I make sure not to make matters worse by acting too soon.
C42 – I try hard to prevent other things from interfering w/ my efforts at dealing w/ this.
C44 – I accept the reality of the fact that it happened.
C47 – I take direct action to get around the problem.
C49 – I force myself to wait for the right time to do something.
C54 – I learn to live with it.
C55 – I put aside other activities in order to concentrate on this.
C56 – I think hard about what steps to take.
C58 – I do what has to be done, one step at a time.
C59 – I learn something from the experience.

Factor #3 – Non-adaptive Coping:

C06 – I say to myself “this isn’t real.”
C09 – I admit to myself that I can’t make myself feel better.
C12 – I use alcohol or drugs to make myself feel better.
C24 – I just give up trying to reach my goal.
C26 – I try to lose myself for a while by drinking alcohol or taking drugs.
C27 – I refuse to believe that it has happened.
C35 – I drink alcohol or take drugs, in order to think about it less.
C40 – I pretend that it hasn’t happened.
C53 – I use alcohol or drugs to help me get through it.

Factor #4 – Emotional Coping:

C03 – I get upset and let my emotions out.
C04 – I try to get advice from someone about what to do.
C11 – I discuss my feelings with someone.
C17 – I get upset, and am really aware of it.
C23 – I try to get emotional support from friends or relatives.
C28 – I let my feelings out.
C34 – I get sympathy and understanding from someone.
C45 – I ask people who have had similar experiences what they did.
C46 – I feel a lot of emotional distress and I find myself expressing these feelings a lot.
C52 – I talk to someone about how I feel.

Factor #5 – Humor: (Item C57 was omitted, since it did not fit conceptually)

C08 – I laugh about the situation.
C20 – I make jokes about it.

C36 – I kid around about it.
C50 – I make fun of the situation.

Factor #6 – Agentive Coping (Focus on Agency):

C21 – I accept that this happened and that it cannot be changed.
R01 – Received support from clergy.
R06 – Led a more loving life.
R08 – Participated in church groups.
R11 – Received support from other members of the church.
R20 – Provided help to other church members.

Factor #7 – Non-Agentive Coping (Shift Responsibility):

C37 – I give up the attempt to get what I want.
C43 – I go to the movies or watch TV, to think about it less.
C51 – I reduce the amount of effort I'm putting into solving the problem.
R02 – Felt angry with or distant from God.
R09 – Asked God why it happened.
R23 – Felt angry with, or distant from the members of the church.
R24 – Questioned my religious beliefs and faith.
R25 – Bargained with God to make things better.

APPENDIX D. RAS EFA Technical Appendix

Appendix D: RAS EFA Technical Appendix

Table 15 contains the factor-loading matrix resulting from the four-factor, orthogonally rotated solution. The individual factors are denoted by boxes around the items forming them, and important cross-loadings are presented in boldface. Note that there is relatively little important cross-loading of items on multiple factors. However, the factor structure is not consistent with the eight resiliencies identified by Biscoe and Harris (1994).

Table 15. Factor loading matrix for the RAS EFA.

Item	Factor				Item	Factor			
	1	2	3	4		1	2	3	4
63	0.75	0.10	0.04	0.00	11	0.13	0.59	0.04	-0.05
33	0.68	0.08	0.11	0.01	35	-0.11	0.53	0.10	0.16
67	0.67	0.00	0.10	-0.17	19	0.05	0.50	-0.04	-0.21
64	0.64	0.10	-0.06	0.00	20	0.04	0.49	-0.07	-0.14
55	0.64	0.08	-0.08	0.17	18	-0.04	0.46	0.15	0.23
54	0.58	-0.02	0.02	0.02	56	0.00	0.46	0.07	-0.02
30	0.57	0.05	-0.06	0.06	59	0.41	0.44	-0.11	0.07
32	0.56	-0.02	0.19	-0.09	26	0.24	0.41	-0.08	0.02
62	0.54	0.09	0.23	0.14	31	0.11	0.38	0.24	0.10
58	0.53	-0.02	0.21	-0.15	15	0.07	0.30	0.18	-0.07
23	0.51	0.07	0.19	-0.11	21	-0.06	0.29	-0.04	0.11
65	0.50	0.37	0.18	-0.13	10	0.13	-0.29	0.23	0.12
53	0.50	0.24	0.02	0.10	14	0.24	0.25	-0.03	0.02
43	0.47	0.15	0.46	0.03	12	0.04	0.21	0.00	0.07
40	0.46	0.02	0.18	0.30	6	0.16	0.20	-0.04	-0.17
72	0.45	0.14	0.14	-0.18	16	0.11	0.14	0.59	0.00
66	0.45	0.34	0.30	-0.01	70	0.27	0.26	0.57	0.04
4	0.43	-0.07	0.04	-0.10	22	0.13	-0.01	0.50	-0.08
42	0.42	0.12	0.00	0.34	60	0.11	-0.22	0.42	0.01
57	0.42	0.04	0.16	-0.17	28	-0.05	0.28	0.41	0.28
68	0.41	0.25	-0.06	0.32	3	0.27	0.17	-0.39	0.07
50	0.41	0.18	-0.17	0.37	71	0.35	0.22	0.38	0.02
36	0.38	0.32	0.33	-0.10	8	-0.02	0.06	0.36	0.28
41	0.38	-0.22	0.12	0.23	25	-0.14	0.02	0.35	0.25
37	0.38	0.10	0.14	0.17	13	0.16	0.19	-0.31	0.17
39	0.37	0.32	-0.10	0.20	49	0.17	-0.01	0.30	-0.02
29	0.37	0.08	-0.05	0.04	27	0.03	-0.04	0.26	0.18
24	0.35	0.01	0.31	0.11	9	0.13	0.13	0.13	0.00
61	-0.34	0.11	-0.08	0.03	48	0.01	-0.02	0.02	0.55
46	0.34	0.07	0.08	0.16	2	-0.01	0.13	-0.08	-0.46
7	0.33	0.22	0.27	-0.07	44	0.34	-0.13	-0.04	0.45
34	0.33	-0.11	0.33	0.14	52	0.05	0.34	-0.12	0.43
5	0.25	0.18	0.18	0.16	47	0.15	0.10	0.16	0.41
45	0.24	-0.16	0.03	0.08	38	0.07	0.30	0.16	0.39

17	0.31	0.06	-0.05	-0.38
69	0.10	-0.14	0.25	-0.38
51	0.15	0.18	0.28	-0.37
1	-0.01	0.02	0.16	0.20

Because the factors could not be interpreted, the reliabilities of the factors were not investigated. Items in this solution were examined for conceptual consistency, and no factor was found to have reasonable conceptual integrity. Hence, a decision was made to drop all items from the scale with the exception of items 62-72 from the General Resiliency subscale. Also, no label was given for the four factors since there was no conceptual integrity per factor.

Items that loaded on factors 1-4 of the RAS.

RAS#1 – No label given

- 04 I try to notice signals from other people that spell trouble.
- 05 It doesn't do any good to try and figure out why things happen.
- 07 I am willing to ask myself tough questions and answer them honestly.
- 23 I try to figure out why a relationship was not healthy and avoid repeating it.
- 24 I am good at starting relationships with other people.
- 29 I am good at keeping relationships going.
- 30 I am able to love others and be loved by them.
- 32 I often talk myself through a problem.
- 33 I can learn from the past and use that information to make the future better.
- 34 I have hobbies or other activities that I take seriously.
- 36 I am successful in taking care of my physical and emotional needs.
- 37 I don't like to try to find out how things work.
- 39 I do enough to get by, but not much more.
- 40 I enjoy getting involved in constructive activities.
- 41 Sometimes I forget my problems when I'm pursuing creative activities.
- 42 I don't think that I'm creative.
- 43 I'm good at finding new ways to look at things.
- 45 The positive feelings I get from creating help make up for the pain of my past.
- 46 Using my imagination doesn't help to solve problems.
- 50 Most problems have only one solution.
- 53 I can't help repeating the mistakes that my parents made.
- 54 I like to help other people.
- 55 There's no way I could make a difference in other people's lives.
- 57 I stand up to people when I see them being dishonest, petty or cruel.
- 58 I am willing to take risks for the sake of doing what I think is right.
- 61 I like to help others even if they are not willing to help themselves.
- 62 I am involved in things that will make people's lives better.
- 63 No matter what happens, if I keep trying I'll get through it.
- 64 There are things that I can do to make my life better.
- 65 Sometimes it's hard, but I don't let things keep me down.
- 66 Even if bad things happen, I can deal with them.

- 67 It's not that hand you are dealt, but how you play it.
- 68 No matter how hard I try, I can't make things right.
- 72 Failure is something you learn from rather than feel guilty about.

RAS#2 – No label given

- 06 Often I find myself taking responsibility for other people's problems.
- 10 I try to figure out why people act the way they do.
- 11 I will often stay with someone, even though I know that person is bad for me.
- 12 I am able to step back from troubled family members and see myself as OK.
- 14 I can't help acting like a child around my parents.
- 15 I am able to recognize when I'm in a bad relationship and end it.
- 18 It's hard for me to stay calm when someone I care about is being unreasonable.
- 19 If I love someone, I can put up with that person hurting me.
- 20 I often find myself around people who aren't well adjusted.
- 21 There are few people who I can really count on.
- 26 It's hard for me to believe that I'll ever find a good relationship.
- 31 It's beyond me how most things work.
- 35 I often get really frustrated when dealing with problems and can't figure out what to do.
- 56 I don't always do what I know is right.
- 59 Sometimes I feel like I'm just drifting along with no purpose in life.

RAS#3 – No label given

- 03 When others think badly of me, there's probably a good reason for it.
- 08 I have a hard time telling what someone new is like until I get to know the person well.
- 09 I can fix hurts from my past that could keep me from letting people get close to me.
- 13 If you care about someone, you should try to do what the person wants, even if it seems unreasonable.
- 16 I can stay calm around troubled people because I understand why they act the way they do.
- 22 I am good at sizing up people.
- 25 I can't do anything about whether people like me or not.
- 27 I'm shy around people I don't know.
- 28 I can't really tell if a relationship is going to be good until I try it.
- 49 I am good at using humor to reduce tension between others and myself.
- 60 I almost always stand up for underdogs.
- 70 I'm good at making the most of a bad situation.
- 71 When life gives me lemons, I make lemonade.

RAS#4 – No label given

- 01 I usually can't predict what other people will do.
- 02 I avoid accepting responsibility for other people's problems.
- 17 I realize that I can't change other people; they have to change for themselves.
- 38 There are few things that I am good at doing.

- 44 One way to express my feelings is through my artwork, dance, music or writing.
- 47 It's hard for me to see the humor in a bad situation.
- 48 One has to take life very seriously to get by.
- 51 I find it easy to choose between right and wrong.
- 52 It's a dog eat dog world where one has to do what it takes to get by.
- 69 I am willing to go with any approach that will work.

APPENDIX E. Consent Form / Instruction Sheet

Appendix E - Consent Form / Instruction Sheet

Thank you for considering participating in this study. Your participation is voluntary and you may choose not to participate, or to withdraw participation at any time during the study without penalty. Mr. Sigrid Dixon, a Ph.D. candidate in the Department of Counseling, Educational Psychology and Special Education at Michigan State University, under the supervision of Professor Lee N. June, is conducting this study.

The purpose of this study is to further investigate the relationship between various personal and demographic factors such as coping, religiosity, and resilience in college students. As a participant, you will be asked to complete seven questionnaires. It will take approximately 40 minutes to complete them.

All information collected will be kept strictly confidential, and your confidentiality will be maintained to the maximum extent allowable by law. You will be fully debriefed regarding this study after completing the survey packet.

Any participant desiring results from this study may contact Sigrid Dixon by e-mail at dixonsig@msu.edu with your request. In your e-mail request, please include a return address for the purpose of mailing results to you.

With your consent, your name will be assigned a number and entered into a raffle. The prize is \$100, and the raffle will be drawn after all data is collected. Your name, and the number that will be assigned to you will be used only for the purpose of distributing the prize. Otherwise, all identifying information is held strictly confidential.

You must complete each survey in the survey packet before your name can be assigned a number and entered into the raffle. Withdrawal from participating in the study will disqualify you for the raffle.

If you have any questions or concerns, you may contact Sigrid J. Dixon, M.A. at 14C Student Services Building, telephone: (517) 355-2264. If you have questions about your rights as a participant, you may contact Dr. David Wright, at (517) 355-2180.

You indicate your voluntary consent to participate in this study by reading this consent form and signing your name below.

Name (Please print): _____

Signature: _____

Date: _____

If you are interested in participating in the raffle, please include the following contact information: an e-mail address and telephone number where you may be reached in the event you win the raffle.

☐ Yes, I want to participate in the \$100 Raffle

☐ No, I do not want to enter the \$100 Raffle

E-Mail address: _____

Telephone Number: _____

This participant is assigned number _____

Demographic Information

1. What is your age? _____
2. What is your gender? (circle one) Male / Female
3. Class level (circle one): Freshman Sophomore Junior Senior
4. Grade Point Average: _____
5. ACT Score: _____
6. What is your parent's annual income (Please check one):
 - a.) Under \$10,000 _____
 - b.) \$10,000 - \$20,000 _____
 - c.) \$20,000 - \$30,000 _____
 - d.) \$30,000 - \$40,000 _____
 - e.) \$40,000 - \$50,000 _____
 - f.) \$50,000 - \$60,000 _____
 - g.) \$60,000 - \$70,000 _____
 - h.) \$70,000 - \$80,000 _____
 - i.) \$80,000 - \$100,000 _____
 - j.) \$100,000 and above _____
 - k.) Don't know _____
7. Were you reared in:
 - l.) A single parent home _____
 - m.) A traditional two parent home _____
 - n.) Reared by relative other than parent(s) _____
 - o.) Foster Parents _____
 - p.) Other (please describe briefly) _____.
- q.) Why did you come to Michigan State University?

_____.
- r.) Do you identify as
 - s.) Christian (Protestant) _____
 - t.) Christian (Catholic) _____
 - u.) Muslim _____
 - v.) Jewish _____
 - w.) Other (Please indicate your religious preference) _____.
- x.) What type of High School did you attend:
 - y.) Predominantly White, suburban _____
 - z.) Predominantly Black, inner-city _____
 - aa.) Mixed or Integrated, suburban _____
 - bb.) Mixed or Integrated, inner-city _____
 - cc.) Public _____

dd.) Private _____

ee.) Other _____ (please describe)

COPE

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Please respond to each of the following items by circling one number in the choice options given at the end of each statement. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no “right” or “wrong” answers, so choose the most accurate answer for YOU – not what you think “most people” would say or do. Indicate what YOU usually do when YOU experience a stressful event.

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

1. I try to grow as a person as a result of the experience. 1 2 3 4
2. I turn to work or other substitute activities to take my mind off things. 1 2 3 4
3. I get upset and let my emotions out. 1 2 3 4
4. I try to get advice from someone about what to do. 1 2 3 4
5. I concentrate my efforts on doing something about it. 1 2 3 4
6. I say to myself “this isn't real.” 1 2 3 4
7. I put my trust in God. 1 2 3 4
8. I laugh about the situation. 1 2 3 4
9. I admit to myself that I can't deal with it, and quit trying. 1 2 3 4
10. I restrain myself from doing anything too quickly. 1 2 3 4
11. I discuss my feelings with someone. 1 2 3 4
12. I use alcohol or drugs to make myself feel better. 1 2 3 4
13. I get used to the idea that it happened. 1 2 3 4
14. I talk to someone to find out more about the situation. 1 2 3 4
15. I keep myself from getting distracted by other thoughts or activities. 1 2 3 4
16. I daydream about things other than this. 1 2 3 4
17. I get upset, and am really aware of it. 1 2 3 4
18. I seek God's help. 1 2 3 4
19. I make a plan of action. 1 2 3 4
20. I make jokes about it. 1 2 3 4
21. I accept that this has happened and that it can't be changed. 1 2 3 4
22. I hold off doing anything about it until the situation permits. 1 2 3 4
23. I try to get emotional support from friends or relatives. 1 2 3 4

24. I just give up trying to reach my goal. 1 2 3 4
25. I take additional action to try to get rid of the problem. 1 2 3 4
26. I try to lose myself for a while by drinking alcohol or taking drugs. 1 2 3 4
27. I refuse to believe that it has happened. 1 2 3 4
28. I let my feelings out. 1 2 3 4
29. I try to see it in a different light, to make it seem more positive. 1 2 3 4
30. I talk to someone who could do something concrete about the problem. 1 2 3 4
31. I sleep more than usual. 1 2 3 4
32. I try to come up with a strategy about what to do. 1 2 3 4
33. I focus on dealing with this problem, and if necessary let other things slide a little.
1 2 3 4
34. I get sympathy and understanding from someone. 1 2 3 4
35. I drink alcohol or take drugs, in order to think about it less. 1 2 3 4
36. I kid around about it. 1 2 3 4
37. I give up the attempt to get what I want. 1 2 3 4
38. I look for something good in what is happening. 1 2 3 4
39. I think about how I might best handle the problem. 1 2 3 4
40. I pretend that it hasn't really happened. 1 2 3 4
41. I make sure not to make matters worse by acting too soon. 1 2 3 4
42. I try hard to prevent other things from interfering with my efforts at dealing with
this. 1 2 3 4
43. I go to movies or watch TV, to think about it less. 1 2 3 4
44. I accept the reality of the fact that it happened. 1 2 3 4
45. I ask people who have had similar experiences what they did. 1 2 3 4
46. I feel a lot of emotional distress and I find myself expressing those feelings a lot. 1
2 3 4
47. I take direct action to get around the problem. 1 2 3 4
48. I try to find comfort in my religion. 1 2 3 4
49. I force myself to wait for the right time to do something. 1 2 3 4
50. I make fun of the situation. 1 2 3 4
51. I reduce the amount of effort I'm putting into solving the problem. 1 2 3 4
52. I talk to someone about how I feel. 1 2 3 4
53. I use alcohol or drugs to help me get through it. 1 2 3 4
54. I learn to live with it. 1 2 3 4
55. I put aside other activities in order to concentrate on this. 1 2 3 4
56. I think hard about what steps to take. 1 2 3 4
57. I act as though it hasn't even happened. 1 2 3 4
58. I do what has to be done, one step at a time. 1 2 3 4
59. I learn something from the experience. 1 2 3 4
60. I pray more than usual. 1 2 3 4

Most Serious Negative Event:

Please think about the most serious negative event you have experienced in the past year.

In one sentence, please describe this event:

When did this event occur? _____

Religious Coping Activities Scale

To what extent did you use the following behaviors in coping with the event you described? Please circle one response per item.

Not at all Somewhat Quite a bit A great deal
a b c d

1. Received support from clergy. a b c d
2. Felt angry with or distant from God. a b c d
3. Focused on the world -to-come rather than the problems of this world. a b c d
4. Trusted that God would not let anything terrible happen to me. a b c d
5. Attended religious services or participated in religious rituals
(e.g. Holy Communion). a b c d
6. Led a more loving life. a b c d
7. Asked for a miracle. a b c d
8. Participated in church groups (e.g., support groups,
prayer groups, Bible-study groups). a b c d
9. Asked God why it happened. a b c d
10. Experienced God's love and care. a b c d
11. Received support from other members of the church. a b c d
12. Realized God was trying to strengthen me. a b c d
13. Tried to be less sinful. a b c d
14. Confessed my sins. a b c d
15. I let God solve my problems for me. a b c d
16. In dealing with the problem I was guided by God. a b c d
17. Realized that I did not have to suffer since Jesus suffered for me. a b c d
18. Used Christ as an example of how I should live. a b c d
19. Took control over what I could, and gave the rest up to God. a b c d
20. Provided help to other church members. a b c d
21. My faith showed me different ways to handle the problems. a b c d
22. Accepted that the situation was not in my hands, but in the hands of God. a b c d
23. Felt angry with or distant from the members of the church. a b c d
24. Questioned my religious beliefs and faith. a b c d
25. Bargained with God to make things better. a b c d
26. Found the lesson from God in the event. a b c d
27. God showed me how to deal with the situation. a b c d
28. Used my faith to help me decide how to cope with the situation. a b
c d
29. Prayed or read the Bible to keep my mind off of my problems. a b c d

Resilient Attitude Scale (Biscoe & Harris, 1994)

We are interested in how you view yourself. Please be as honest as possible when rating each of the statements below. There are no right or wrong answers. In the space to the right of each statement below, please circle the response that best describes how you feel about that statement. Please read each item carefully and rate how strongly you agree or disagree with it using the scale below:

Disagree Strongly	Disagree	Neutral		Agree	Agree Strongly
1	2	3	4		5

1. I usually can't predict what other people will do. 1 2 3 4 5
2. I avoid accepting responsibility for other people's problems. 1 2 3 4 5
3. When others think badly of me, there's probably a good reason for it. 1 2 3 4 5
4. I try to notice signals from other people that spell trouble. 1 2 3 4 5
5. It doesn't do any good to try and figure out why things happen. 1 2 3 4 5
6. Often I find myself taking responsibility for other people's problems. 1 2 3 4 5
7. I am willing to ask myself tough questions and answer them honestly. 1 2 3 4 5
8. I have a hard time telling what someone new is like until I get to know the person well. 1 2 3 4 5
9. I can fix hurts from my past that could keep me from letting people get close to me. 1 2 3 4 5
10. I try to figure out why people act the way they do. 1 2 3 4 5
11. I will often stay with someone, even though I know that person is bad for me. 1 2 3 4 5
12. I am able to step back from troubled family members and see myself as OK. 1 2 3 4 5
13. If you care about someone, you should try to do what the person wants, even if it seems unreasonable. 1 2 3 4 5
14. I can't help acting like a child around my parents. 1 2 3 4 5
15. I am able to recognize when I'm in a bad relationship and end it. 1 2 3 4 5
16. I can stay calm around troubled people because I understand why they act the way they do. 1 2 3 4 5
17. I realize that I can't change other people; they have to change for themselves. 1 2 3 4 5
18. It's hard for me to stay calm when someone I care about is being unreasonable. 1 2 3 4 5
19. If I love someone, I can put up with that person hurting me. 1 2 3 4 5
20. I often find myself around people who aren't well adjusted. 1 2 3 4 5
21. There are few people who I can really count on. 1 2 3 4 5
22. I am good at sizing up people. 1 2 3 4 5

23. I try to figure out why a relationship was not healthy and avoid repeating it. 1 2 3 4 5
24. I am good at starting relationships with other people. 1 2 3 4 5
25. I can't do anything about whether people like me or not. 1 2 3 4 5
26. It's hard for me to believe that I'll ever find a good relationship. 1 2 3 4 5
27. I'm shy around people I don't know. 1 2 3 4 5
28. I can't really tell if a relationship is going to be good until I try it. 1 2 3 4 5
29. I am good at keeping relationships going. 1 2 3 4 5
30. I am able to love others and be loved by them. 1 2 3 4 5
31. It's beyond me how most things work. 1 2 3 4 5
32. I often talk myself through a problem. 1 2 3 4 5
33. I can learn from the past and use that information to make the future better. 1 2 3 4 5
34. I have hobbies or other activities that I take seriously. 1 2 3 4 5
35. I often get really frustrated when dealing with problems and can't figure out what to do. 1 2 3 4 5
36. I am successful in taking care of my physical and emotional needs. 1 2 3 4 5
37. I don't like to try to find out how things work. 1 2 3 4 5
38. There are few things that I am good at doing. 1 2 3 4 5
39. I do enough to get by, but not much more. 1 2 3 4 5
40. I enjoy getting involved in constructive activities. 1 2 3 4 5
41. Sometimes I forget my problems when I'm pursuing creative activities. 1 2 3 4 5
42. I don't think that I'm creative. 1 2 3 4 5
43. I'm good at finding new ways to look at things. 1 2 3 4 5
44. One way to express my feelings is through my artwork, dance, music or writing. 1 2 3 4 5
45. The positive feelings I get from creating help make up for the pain of my past. 1 2 3 4 5
46. Using my imagination doesn't help to solve problems. 1 2 3 4 5
47. It's hard for me to see the humor in a bad situation. 1 2 3 4 5
48. One has to take life very seriously to get by. 1 2 3 4 5
49. I am good at using humor to reduce tension between others and myself. 1 2 3 4 5
50. Most problems have only one solution. 1 2 3 4 5
51. I find it easy to choose between right and wrong. 1 2 3 4 5
52. It's a dog eat dog world where one has to do what it takes to get by. 1 2 3 4 5
53. I can't help repeating the mistakes that my parents made. 1 2 3 4 5
54. I like to help other people. 1 2 3 4 5
55. There's no way I could make a difference in other people's lives. 1 2 3 4 5
56. I don't always do what I know is right. 1 2 3 4 5
57. I stand up to people when I see them being dishonest, petty or cruel. 1 2 3 4 5
58. I am willing to take risks for the sake of doing what I think is right. 1 2 3 4 5
59. Sometimes I feel like I'm just drifting along with no purpose in life. 1 2 3 4 5
60. I almost always stand up for underdogs. 1 2 3 4 5

61. I like to help others even if they are not willing to help themselves. 1 2 3 4 5
62. I am involved in things that will make people's lives better. 1 2 3 4 5
63. No matter what happens, if I keep trying I'll get through it. 1 2 3 4 5
64. There are things that I can do to make my life better. 1 2 3 4 5
65. Sometimes it's hard, but I don't let things keep me down. 1 2 3 4 5
66. Even if bad things happen, I can deal with them. 1 2 3 4 5
67. It's not that hand you are dealt, but how you play it. 1 2 3 4 5
68. No matter how hard I try, I can't make things right. 1 2 3 4 5
69. I am willing to go with any approach that will work. 1 2 3 4 5
70. I'm good at making the most of a bad situation. 1 2 3 4 5
71. When life gives me lemons, I make lemonade. 1 2 3 4 5
72. Failure is something you learn from rather than feel guilty about. 1 2 3 4 5

Multidimensionality of Religiosity Scale

Directions: Next, we'd like to ask some more questions concerning religion.

1. How often do you usually attend religious services?
 1. Less than once a year
 2. A few times a year
 3. A few times a month (1 - 3x)
 4. At least once a week (1- 3x)
 5. Nearly everyday (4 or more times a week)
2. Are you an official member of a church or other place of worship?
 - 1.) Yes
 - 2.) No
3. How many church clubs or organizations do you belong to or participate in?
 - 1.) None
 - 2.) 1-3
 - 3.) 4 or more
4. Besides regular service, how often do you take part in other activities at your place of worship?
 - 1.) Never
 - 2.) A few times a year
 - 3.) A few times a month (1-3x)
 - 4.) At least once a week (1-3x)
 - 5.) Nearly everyday (4 or more times a week)
5. Do you hold any positions in your church or place of worship?
 - 1.) Yes
 - 2.) No
6. How often do you read religious books or other religious materials?
 - 1.) Less than once a year
 - 2.) A few times a year
 - 3.) A few times a month (1-3x)
 - 4.) At least once a week (1-3x)

- 5.) Nearly every day (4 or more times a week)
7. How often do you watch or listen to religious programs on TV or radio?
- 1.) Less than once a year
 - 2.) A few times a year
 - 3.) A few times a month (1-3x)
 - 4.) At least once a week (1-3x)
 - 5.) Nearly everyday (4 or more times a week)
8. How often do you pray?
- 1.) Less than once a year
 - 2.) A few times a year
 - 3.) A few times a month (1-3x)
 - 4.) At least once a week (1-3x)
 - 5.) Nearly everyday (4 or more times a week)
9. How often do you ask someone to pray for you?
- 1.) Less than once a year
 - 2.) A few times a year
 - 3.) A few times a month (1-3x)
 - 4.) At least once a week (1-3x)
 - 5.) Nearly everyday (4 or more times a week)
10. How religious would you say you are?
- 1.) Not religious at all
 - 2.) Not too religious
 - 3.) Fairly religious
 - 4.) Very religious
11. How important was religion in your home when you were growing up?
- 1.) Not important at all
 - 2.) Not too important
 - 3.) Fairly important
 - 4.) Very important
12. How important is it for Black parents to send or take their children to religious services?
- 1.) Not important at all
 - 2.) Not too important
 - 3.) Fairly important

4.) Very important

13. How spiritual would you say you are?

- 1.) Not spiritual at all
- 2.) Somewhat spiritual
- 3.) Very spiritual

14. How important is your spirituality to you?

- 1.) Not important
- 2.) Somewhat important
- 3.) Very important

15. Looking back at your spiritual beliefs since you were six years old, are these beliefs the same, less, or more?

- 1.) Less than they were
- 2.) About the same
- 3.) More committed than they were

16. How much help is your church/religious community to you? Would you say:

- 1.) A lot of help
- 2.) Some help
- 3.) A little help
- 4.) No help
- 5.) No attendance

Beliefs and Attitudes Survey (AAAS-R)

Below are some beliefs and attitudes about religion, families, racism, Black people, White people, and health. Please tell us how much you personally agree or disagree with these beliefs and attitudes by circling the number. There are no right or wrong answers; we simply want to know your views and your beliefs.

	I Totally Disagree Not True at all			Sort of Agree Sort of True		I Strongly Agree Absolutely True	
01. I believe in the Holy Ghost.	1	2	3	4	5	6	7
02. I like gospel music.	1	2	3	4	5	6	7
03. I believe in heaven and hell.	1	2	3	4	5	6	7
04. The church is the heart of the Black community	1	2	3	4	5	6	7
05. I have seen people "get the spirit" or speak in tongues.	1	2	3	4	5	6	7
06. I am currently a member of a Black church.	1	2	3	4	5	6	7
07. When I was young, I was a member of a Black church.	1	2	3	4	5	6	7
08. Prayer can cure disease.	1	2	3	4	5	6	7
09. What goes around, comes around.	1	2	3	4	5	6	7
10. I used to sing in the church choir.	1	2	3	4	5	6	7
11. Most of the music I listen to is by Black artists.	1	2	3	4	5	6	7
12. I like Black music more than White music.	1	2	3	4	5	6	7
13. I listen to Black radio stations.	1	2	3	4	5	6	7
14. I try to watch all the Black shows on TV.	1	2	3	4	5	6	7
15. The person I admire the most is Black.	1	2	3	4	5	6	7

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 16. I feel more comfortable around Blacks than around Whites. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. When I pass a Black person (a stranger) on the street, I always say hello or nod to them. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Most of my friends are Black. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. I read (or used to read) Essence or Ebony magazine. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. I don't trust most White people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. IQ tests were set up purposefully to discriminate against Black people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. Most Whites are afraid of Blacks. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. Deep in their hearts, most White people are racist. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. Whites don't understand Blacks. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. Most tests (like the SAT's and tests to get a job) are set up to make sure that Blacks don't get high scores on them. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 26. Some members of my family hate or distrust White people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 27. When I was young, I shared a bed at night with my sister, brother, or some other relative. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 28. When I was young, my parent(s) sent me to stay with a relative (aunt, uncle, grandmother) for a few days or weeks, and then I went back home again. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. When I was young, my cousin, aunt, grandmother, or other relative lived with me and my family for a while. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. When I was young, I took a bath with | | | | | | | |

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| my sister, brother, or some other relative. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. Some people in my family use Epsom salt. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 32. Illnesses can be classified as natural types and unnatural types. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. Some old Black women / ladies know how to cure diseases. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 34. Some older Black women know a lot about pregnancy and childbirth. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 35. I was taught that you shouldn't take a bath and then go outside. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 36. I avoid splitting a pole | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 37. When the palm of your hand itches, you'll receive some money. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 38. There's some truth to many old superstitions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 39. I eat black-eyed peas on New Year's Eve. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 40. I grew up in a mostly Black neighborhood. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 41. I went to (or go to) a mostly Black high school. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 42. I went to a mostly Black elementary school. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 43. I currently live in a mostly Black neighborhood. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 44. It's better to try to move your whole family ahead in this world than it is to | | | | | | | |

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| be out for only yourself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 45. Old people are wise. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 46. I often lend money or give other types
of support to members of my family. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 47. A child should not be allowed to call a
grown woman by her first name, "Alice."
The child should be taught to call her
"Ms. or Mrs. Alice." | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

The Core Convictions Scale

Instructions:

Below are statements concerning personal beliefs. Please read each statement and circle the responses that reflects the extent to which you agree with each item.

Strongly disagree	Disagree	Agree	Strongly agree
a	b	c	d

- 1.) God works everything out for my good. a b c d
- 2.) God is caring, just, fair, and impartial. a b c d
- 3.) God is all-powerful and in control of every situation. a b c d
- 4.) God knows everything. a b c d
- 5.) God is good and everything that God has created is good. a b c d
- 6.) God is merciful and gracious. a b c d
- 7.) All humans are created equal. a b c d
- 8.) Every human being is unique and worthy of respect. a b c d
- 9.) Despite any differences, we are all related or connected in
some way. We are brothers and sisters. a b c d
- 10.) We should persevere and endure until we
succeed, and in our identity and faith. a b c d

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