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A Cultural Examination of Hardiness: Associations with Self-Esteem, Wisdom, Hope,
and Coping-Efficacy

An Honors thesis submitted in partial fulfillment of the requirements for Honors in
Psychology.

By

Asea L. Gilmore

Under the mentorship of Dr. Jeff Klibert

ABSTRACT

It is imperative that college students cultivate and exhibit traits associated with resilience to successfully complete their course of study and to protect themselves against the onset of mental health issues. This study aimed to examine positive psychology variables in relation to resilience in order to find variables that promote resilience in college students. Wisdom, hope, and coping self-efficacy were examined amongst 436 undergraduate students. Ethnicity amongst the sample consisted with 136 self-reporting as African American (31.9%), 264 self-reporting as European American (60.6%), 3 self-reporting as Asian (0.7%), 2 self-reporting as Native American (0.5%), and 28 self-reporting as biracial (6.4%). Participants volunteered to take a survey, which provided the data for this study. Results suggested wisdom, hope, and coping self-efficacy were positively related to resilience. Regression analysis revealed coping self-efficacy and trait hope as unique predictors of resilience for African American students. Regression analysis also revealed wisdom as a unique predictor for European Americans, but not African Americans. This finding suggests the need for a measure of wisdom that is inclusive of African American values of wisdom. Further examination in these findings may ultimately lead to a better understanding of hardiness development during the collegiate years.

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A Cultural Examination of Hardiness: Associations with Self-Esteem, Wisdom, Hope, and Coping-Efficacy

The transition from high school to college is a life experience that many find to be stressful (Hicks, & Heastie, 2008). During this transition many emerging adults face unique challenges associated with being away from home for the first time. This can be extremely difficult to deal with especially when considering other novel, yet stressful phenomena associated with college life including peer pressure, financial issues, frustration with academics, and coping with new demands and responsibilities (Hamaideh, 2009). In addition, many college students have high expectations that may lead to higher self-demands and higher levels of stress (Conley & Lehman, 2012). Such stressors may precipitate a number of physical and mental health difficulties for college students. For instance, evidence demonstrates that 33 % of college students experience lack of sleep along with eating and mental health issues such as anxiety and depression as a result of stress associated with academic performance (Hartley, 2011). Recent analyses examining university students have also suggested that college students report experiencing traumatic events. Specifically, 66% of college students reported some exposure to adverse life events such as sexual assault and community violence, meeting the criteria for a DSM-IV TR diagnosis of a traumatic event (Galatzer-Levy, Burton, & Bonnano, 2012).

Interestingly, it appears that difficulties with transitions associated with college are important factors in the onset of these mental health conditions. For example, in a NIMH survey 75% of individuals who reported a history with depression indicated that symptoms began around the age 20 (Emmons, 2007), which is a common age of many

first or second year college students. In fact, depressive symptoms among college students appear relatively common with estimates up to 25% having reported significant difficulties associated with mood regulation (Hamaideh, 2009). Past research demonstrates that students with mental health issues have a high risk of college dropout. For instance, a national survey found 86% of students with mental health issues drop out (Hartley, 2010). Considering these trends, it is important that university officials and counselors identify and promote factors that help buffer against the development of such mental health issues.

It is imperative that college students cultivate and exhibit traits associated with resilience to protect themselves against the onset of mental health difficulties. This is especially true given the amount of novel stressors college students encounter on a daily basis. Resilience has been defined as the ability to “bounce back” from negative events without succumbing to negativity or despair (Tugade & Fredrickson, 2004). For a college student, resilience may be represented by the ability to remain positive in the face of academic, social, and career oriented stressors. Resilience involves adapting to a challenging situation and initiating the ability to overcome and remain mentally and/or emotionally stable. Research posits that those who report high levels resilience are “optimistic, zestful, and [express] energetic approaches to life, and are curious and open to new experience” (Tugade & Fredrickson, 2004 pg. 320). In addition, research demonstrates that resilience is related to a wide range of positive outcomes. For instance, resilience has been found to have a positive relationship with self-esteem, social support, and positive emotionality (Steinhart, & Dolbier, 2008). Consequences for low levels of resilience include detriments to psychological functioning such as symptoms of anxiety

and depression, as well as physical functioning marked by increased symptoms and frequency of illness (Steinhart, & Dolbier, 2008).

Hardiness is a more dispositional component of resilience, in that individuals have the ability to overcome stress in multiple life domains overtime. Hardiness was originally used to examine the relationship between stress and physical illness, but in subsequent research, hardiness has been found to minimize negative health outcomes such as occupational burnout, job dissatisfaction, poor on-the-job performance, depression, and maladaptive aging (Benishek, & Lopez, 2001). According to Maddi et al. (2012), hardiness is composed of three interrelated components: commitment (i.e., views life events that could be potentially stressful as meaningful and interesting), challenge (i.e., perceiving change as a normal opportunity for personal development), and control (i.e., the perception of having control over personal life events). All three of these dimensions are purported to buffer an individual against the negative effects of stressful life situations (Pengily, & Dowd, 2000). These three components have been combined to create a robust understanding of hardiness as a personality trait.

Although hardiness is an important factor in explaining the relationship between stress and health outcomes in community and outpatient samples, few studies have examined this trait with samples of undergraduate students. Maddi, et al. (2012) extended our understanding of hardiness with this sample by examining its relationship with the existence and existential well-being. Hardiness was positively related to indices of well-being. Another purpose of the study was to analyze data from previous studies (a total of eight samples) to analyze the relationship between hardiness and GPA. As expected, hardiness was positively correlated to subsequent GPA in all eight samples. Underlying

dimensions of hardiness have also been examined in college samples. For instance, commitment moderates in the relationships between successful academic performances and measures of academic success (i.e., GPA high dissertation marks) over a period of time (Sheard, & Golby, 2007). Relative to community and outpatients samples, little research has examined hardiness in the context of college students. However, preliminary evidence suggests that hardiness is an important factor in enhancing positive outcomes among college students.

Resilience/Hardiness and Culture.

According to intersectional theories, it is important to study different groups in the various systems of discrimination or oppression, while avoiding inaccurate generalizations of findings. It is also important to consider how cultural privileges as well as changes in cultural context impact the meaning of personal identities and associated characteristics (Samuels, & Ross-Sheriff, 2008). By considering cultural elements such as these, researchers can identify and examine culturally sensitive puzzle pieces that create a robust understanding of psychological processes for individuals in a specific cultural group. Given the distinct experiences of being associated with ethnic minority statuses, such considerations should be applied when looking into the nature of resilience. As a result, the current study will examine resilience/hardiness from a cross-cultural perspective.

Research has shown that African American's experience resilience differently (as a minority) than members of dominant culture (Greer, & Chwalisz, 2007). It has been noted that African Americans proportionately experience a diverse range of stressors, such as discrimination and racism, compared to European Americans (Chambers, 2009).

In keeping with this position, the development of resilience/hardiness in African Americans may be more complex and unique when compared to individuals from the majority culture. For instance, research has shown that negative experiences such as discrimination and racism are positively related to factors (e.g., depression) known to deplete resilience in African American college students (Bowen-Reid & Harrell, 2002). According to Greer and Chwalisz (2007), minority students experience stress that is common to all students, such as exams and writing papers, as well as additive stress resulting from discrimination and prejudice. These findings suggest that African Americans may need to develop resilience more quickly in order to cope with everyday life in college. In addition, racial socialization, which is defined as explicit and implicit messages that provide mechanisms that help children of African descent cope with racial discrimination and hostility in an healthy way, has been found to have a positive relationship with resilience in people of African descent (Brown, & Taylka, 2011). Moreover, racial socialization is believed to help with the formation of racial and cultural pride and proactive coping mechanisms that are commonly associated with resilient practices. Taken these findings into consideration, the pathway to resilience or hardiness may be uniquely different for African Americans when compared to European Americans students. Essentially, these findings suggest that African Americans students may develop, process, and express resilient or hardy traits differently when compared to individuals from other ethnic groups. Therefore, it is important that researchers examine factors that predict resilience or hardiness in African Americans independently from individuals in different ethnic groups.

The purpose of the present study is to explore the nature of hardiness in college students, as well as the experience of hardiness amongst different ethnic groups. This study also intends to determine whether positive psychology variables can predict a significant amount of variance in hardiness above and beyond the impact of self esteem. Through this study, we hope to gain a better understanding of how positive psychology variables affect the nature of resilience within a culturally diverse sample of college students.

Hardiness and Self-Esteem

Overall, research has consistently demonstrated a positive relationship between self-esteem and measures of resilience. For instance, Veselska and colleagues (2009) found that high levels of positive self-esteem were highly correlated with numerous dimensions (e.g., social competence) underlying resilience traits. In addition, Veselska and colleagues found that self-esteem and resilience play similar roles in the promotion and inhibition of engaging in risky behaviors. Specifically, high levels of resilience and positive self-esteem are likely to protect individuals against the temptation to engage in risky behavior. Similarly, high self-esteem has been found to be positively correlated with positive affect commonly experienced by those individuals with high levels of hardiness traits (Burns & Anstey, 2010; Hames, & Joiner, 2012). Finally, research has suggested the improvements in self-esteem are important in cultivating a proactive sense of resilience. For instance, in a study by Marigold et al. (2010), researchers found that the experience of a positive events and/or comment by a partner acted as a protective factor against devaluation when faced with relational threats for individuals placed in the low self-esteem group. In addition, researchers found that low self-esteem individuals that

reflected on positive affirming actions or comments from their partner, behaved less negatively toward their partners. Overall, these findings suggest that reflection upon positive experiences closely linked to resilience (e.g., positive affect) serve an important role in inhibiting the effects of low self-esteem. Despite the connection between self-esteem and resilience, it is important for researchers to continue identifying factors that contribute to the promotion of resilience so that effective intervention programs can be enhanced and new interventions can be developed.

One fruitful area of focus may be positive psychology. The majority of the literature in clinical psychology explores outcomes from a deficit model (Peterson & Seligman, 2004). Essentially, psychological processes are investigated from the perspective of what is missing or absent and how those pieces contribute to the onset of a specific condition or state. Positive psychology rejects the notion of a deficit model and instead focuses on character strengths that facilitate the experience of positive emotional and behavioral outcomes (Seligman & Csikszentmihalyi, 2000). Therefore, it may be important to identify what character strengths or intrapersonal resources are needed to cultivate a strong sense of resilience. Based on theory, the current study seeks to determine preliminary evidence of the effects of wisdom, hope, and coping self-efficacy in the prediction of resilience/hardiness across ethnic groups.

Positive Psychology Factors and Resilience/Hardiness

Wisdom. Wisdom is defined as “the competence in, intention to, and application of, critical life experiences to facilitate the optimal development of self and others” (Webster, 2009; p. 71). Wisdom can also be understood by three underlying components: cognitive (desire to know the truth), reflective (desire to invest in self-examination, self-

awareness, and self-insight), and compassionate (desire to foster the well-being of all; Bergsma, & Ardelt, 2012). To date, wisdom has been associated with a number of positive outcomes. Specifically, Bergsma and Ardelt (2012) found that wisdom was positively related to happiness and that a lack of wisdom may be detrimental to life satisfaction. Wisdom also yields a greater sense of well-being and promotes good judgment (Yang, 2008). Research also suggests that wisdom strengths may positively influence coping strategies; therefore reducing the prevalence and intensity of stressful events (Avey et al., 2012). Considering these findings, it may be important to examine wisdom within the context of resilience based models.

To date, there are no known studies that offer a direct empirical relationship between wisdom and resilience, but a few studies offer indirect evidence that a positive relationship between these two constructs might exist. For instance, wisdom has been found to be positively associated with ego-integrity as well as an attributional complexity (wise people see life difficulties as multi-dimensional and multi-causal; Webster, 2009). Like individuals high in wisdom, those who exhibit high levels of resilience are more open minded, have a positive outlook, and generally exhibit more life satisfaction (Black, & Lobo, 2008). In addition, two components of wisdom (reflective and compassionate) were found to be inversely related to negative affect and positively correlated with subjective expressions of well-being (Neff et al., 2007). In the same manner, resilient individuals have been found to draw on positive emotions in times of stress and express more life satisfaction than individuals low in resilience (Tungade, & Fredrickson, 2004; Steinheart, & Dolbier, 2008). Essentially, components of wisdom appear to be positively related to a number of indices that underlie resilience. However, it is important that

researchers directly examine the relationships between wisdom and resilience, especially across ethnic groups. Considering the shared correlates between these two constructs, it is expected that wisdom will predict a significant amount of variance in resilience traits over and above the influence of self-esteem.

Hope. Hope is defined as goal-directed thinking in which an individual perceives the possibility of finding routes to desired goals, which is referred to as pathways thinking, and the motivation to those routes, which is referred to as agency thinking (Riele, 2010). Agency thinking includes thoughts such as “I think I can” and “I refuse to quit”. Hope, however, is reflective of perception, which is not reality; therefore it is possible for one to be high in hope and not attain his/her goals (Feldman et al., 2009). Hope has been found to be related to several positive outcomes. For example, hope has been found to be a predictor for future academic success (Day et al., 2010). Research also suggests that individuals high in hope are more confident in their ability to produce multiple routes to goals and also experience the benefits of optimism, sense of control, problem-solving skills, positive affect, self-esteem, and positive goal expectancies in comparison to individuals low in hope (Rose, et al., 2003). In relation to resilience, hope has been found to be both indirectly and directly related.

Hope, like resilience, has been found to be associated with positive physical and mental health outcomes (Grewal, & Porter, 2007). In addition, hope is a predictor of positive well-being and decreased psychological distress. For example, in a study by Lloyd and Hastings (2007), the researchers found that hope agency was a resilience factor for the well-being of mothers and fathers with children that have behavior problems. Resilience and hope have been found to positively influence quality of life as well as

provide buffering effects toward distress (Wu, 2011). In a study conducted by Wu (2011) resilience was found to be positively influenced by coping strategies, which in turn allowed resilience to positively influence the individual's hope state. Given the correlation between hope and resilience, it is expected that hope will be a significant predictor in variance amongst participants above and beyond self-esteem.

Coping Self-efficacy. Coping self-efficacy refers to an individual's confidence in their ability to mobilize the motivation, cognitive resources, and actions needed to cope with negative events (Singh & Bussey, 2010). Individuals high in self-efficacy are more likely to invest more effort and be more persistent when confronted with obstacles than individuals that are low in self-efficacy (Nicholls, Polman, Levy, & Borkoles, 2010), suggesting that coping self-efficacy can influence behavior and the amount of effort needed to achieve a specific outcome. According to research, coping effectiveness training has been found to be an effective method of increasing coping self-efficacy (Reeves, Nicholls, & McKenna, 2011). Coping effectiveness has been found to be positively correlated with coping self-efficacy (Nicholls et al., 2010). Studies reveal positive outcomes in high levels of coping self-efficacy such as an inverse relationship between PTSD and emotional distress (Lambert et al., 2013; Singh, & Bussey, 2010). Given the research on coping self-efficacy, it may be beneficial to consider this variable in examining resilience.

Current research reveals potential indirect connections between resilience and coping self-efficacy. Individuals high in coping self-efficacy have the ability to cope effectively (Nicholls et al., 2010). Likewise, individuals high in resilience also have the ability to cope in an efficient manner. In a study by Lambert et al. (2013) it was found

that individuals who were more confident in their ability to cope experienced lower levels of distress and psychological symptoms, which is also true for individuals high in resilience. A high level of resilience has been found to be a contributor to increased levels of self-efficacy; incidentally, self-efficacy has also been attributed as a factor of resilience (Taylor, & Reyes, 2012). Again, it is important that researchers identify factors that may promote the development and maintenance of resilience across ethnic groups. Taking these common characteristics into consideration, coping self-efficacy may be an important factor in how we conceptualize resilience growth. As a result, it is expected that coping self-efficacy will account for a significant amount of variance in estimates of resilience across ethnic groups.

Current Study

In summary, the purposes of the current study were to (a) determine the differences in reports of wisdom, hope, and coping self-efficacy between African Americans and European Americans; (b) determine the relationship between variables, and (c) examine the combination of variables in predicting resilience. In the current study, we expected that African American students would report higher positive psychology variables in comparison to European Americans. We expected a positive relationship between self-esteem and resilience for both African Americans and European Americans. It was also expected a positive relationship between wisdom, hope, and coping self-efficacy in both racial groups. Additionally, it was expected that the linear combination of hope, wisdom, and coping self-efficacy would predict a significant amount of variance over and above self-esteem in both African Americans and European Americans.

Method

Participants

Four hundred and thirty six respondents (157 males, 279 females) completed the study to partially fulfill a course requirement. Participant age ranged from 17 to 35 ($M = 19.71$, $SD = 2.16$). Ethnicity amongst the sample consisted with 136 self-reporting as African American (31.9%), 264 self-reporting as European American (60.6%), 3 self-reporting as Asian (0.7%), 2 self-reporting as Native American (0.5%), and 28 self-reporting as biracial (6.4%).

Procedure

Participants were recruited through the Georgia Southern University SONA system. Students enrolled in introduction to psychology and upper division psychology courses volunteered to complete the study in order to obtain course credit. Once students signed up for the study, they were then taken to the informed consent page of the online survey via an embedded link. The students then read the informed consent, which included the rights, benefits, purpose of the study, as well as the potential risks to the individual. The participants then were asked to electronically give their consent, as the study is entirely online, and indicate that they are eighteen years or older. Any student that chose not to give consent was not permitted to answer the survey questions. Those who volunteered to continue with the survey were directed to demographics form followed by the Trait Hope Scale, the Self-Assessed Wisdom Scale, the Coping Self-Efficacy Scale, and the Dispositional Resilience Scale. Following the completion of these scales, the participants were directed to a Debriefing Form, which explained the purpose of the study as well as the goals in greater detail. Participants were also informed of

psychological-services that can be accessed at a free to low-cost through: agency, online, and hotline services. In terms of receiving course credit, participants were instructed to email the primary researcher at a designated email address, stating their name, date and time of survey completion, professor, and course. The email account was created specifically for this purpose and only the primary researcher had access to the account. Students were informed that all information was anonymous as the primary researchers did not have the ability to connect students' identity to their responses.

During the data collection process, all data were collected and stored on Survey Monkey in a password protected online data storage account. Only the primary researcher and secondary researcher had access to the account. After the conclusion of data collection procedures, data was downloaded and transferred to an SPSS file. After all of the data were stored on an SPSS file, data files contained within Survey Monkey were deleted. The SPSS file in which the data were stored is password protected. This data will be saved for seven years on a password protected hard drive. All participants were treated in an ethical manner consistent with departmental and APA guidelines.

Measures

Trait Hope Scale (THC; Snyder et al., 1991). The THC measures for trait levels of hope, which is defined as a cognitive set that is composed of a reciprocally derived sense of goal directed determination, and planning to meet goals (Snyder et al. 1991). The THC consists of 12 items, which are scored on a 4-point Likert Scale (ranging from “Definitely False” to “Definitely True”). Higher scores indicate higher levels of hope.

The THC has also been shown to have excellent construct validity in relation to goal setting behaviors (Snyder et al., 1991). THC has demonstrated acceptable internal consistency with college samples ($\alpha = .84$). The internal consistency coefficient was .77 for the current sample.

Self-Assessed Wisdom Scale (SAWS; Webster, 2007). The SAWS was designed to measure indicators of wisdom, which is defined as a latent variable that is best indicated by measuring cognitive, reflective, and affective effect in an individual. The cognitive component is best explained as a desire to know the truth. The reflexive component measures one's ability to see events from different perspectives, while avoiding subjectivity and projections. The affective element examines the presence of positive behavior and emotions towards others (such as sympathy). The SAWS consists of five subscales: Experience (8 items), Emotional Regulation (8 items), Reminiscence/Reflection (8 items), Humor (8 items), and Openness (8 items); however only the total score was emphasized within the current study. All items were assessed using a 5-point Likert scale, ranging either from 1 (strongly agree) to 5 (strongly disagree) or from 1 (definitely true of myself) to 5 (not true of myself). The total SAWS score demonstrated exceptional construct validity with measures of generativity and attachment avoidance (Webster, 2007). SAWS has demonstrated exceptional internal consistency amongst college-age samples ($\alpha = .94$). The internal consistency coefficient was .91 for the current sample.

Coping Self-Efficacy Scale (CSE-S; Chesney et al., 2006). The CSE-S consists of 26-items, which measure an individual's belief that he or she can perform in behaviors important to adaptive coping by determining what is controllable and uncontrollable

(Kamau et al., 2011). Higher scores indicate greater coping. Internal consistency and test-retest reliability are shown for the three factors measured in this scale: one's ability to use problem-focused coping, one's ability to stop unpleasant emotions, and one's ability to get support from friends and family. Through the work of Chesney et al., 2006, the CSE-S has shown to be an effective measure to examine one's ability to cope with life challenges ($\alpha = .91$). The internal consistency coefficient was .96 for the current sample.

Dispositional Resilience Scale 15 Revised [DRS-15 R] (Bartone, 2007). The DRS-15 R measures for resilience (hardiness) which is defined as a strong sense of commitment, control, and challenge that provides the courage and motivation to turn stressful situations into growth opportunities (Maddi et al., 2009). This scale contains a total of 15 items measured on a 4-point Likert scale ranging from "Not at all true" to "Completely True". Higher scores indicate a greater level of resilience. This scale has proven to be reliable, valid, and has been revised numerous times (Bartone, 2007). The DSR-15 R has demonstrated an acceptable internal consistency ($\alpha = .82$). The internal consistency coefficient was .73 for the current sample.

Rosenburg Self-Esteem Scale (RSES; Rosenburg, 1965). The RSES is a tool used to measure self-esteem, which is defined as a favorable or unfavorable attitude about the self (Rosenburg, p 15). This scale consists of 10 items that are measured on a 4-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". Items 2, 5, 6, 8, and 9 are reversed scored. The higher the score exhibited, the higher the self-esteem. The RSES has presented to be reliable with high internal consistency ($\alpha = .87$). The internal consistency coefficient was .91 for the current sample.

Results

A multivariate analyses of variance (MANOVA) was conducted in order to determine if ethnic differences of self-reported positive psychology variables were present. Consistent with the stated hypothesis, results revealed a significant effect for ethnicity ($\lambda (5, 389) = 2.28, p < .05, \eta^2 p = .03$). Moreover, significant main effects for wisdom ($F (1, 393) = 6.15, p < .05$) and coping self-efficacy ($F (1, 393) = 8.98, p < .01$) were also revealed. These findings support the hypothesis and suggest that African American students report higher positive psychology scores, e.g., wisdom ($M = 184.45, SD = 23.38$) and coping self-efficacy ($M = 188.98, SD = 46.53$), than European American students, wisdom ($M = 178.50, SD = 22.12$) and coping self-efficacy ($M = 175.56, SD = 39.66$). Because ethnic differences were revealed, bivariate correlations and regressions were examined for each ethnicity independently.

Bivariate correlations were conducted to determine the relationships among hope, wisdom, coping self-efficacy, resilience, and self-esteem in a college population across ethnicity. These results are represented in Tables 2 and 3. As expected, data examining African American students showed that resilience was positively correlated with self-esteem ($r = .61$), wisdom ($r = .43$), coping self-efficacy ($r = .58$), and trait hope ($r = .63$). In addition, bivariate correlations for European American students revealed that resilience was positively correlated with self-esteem ($r = .65$), wisdom ($r = .36$), coping self-efficacy ($r = .61$), and trait hope ($r = .68$). In total, these results suggest that those who endorse high levels of self-esteem, wisdom, coping self-efficacy, and trait hope are likely to report a greater amount of resilience.

Lastly, two block regressions were analyzed to determine if the combination of the positive psychology variables would predict a unique amount of variance in resilience above and beyond self-esteem for African Americans and European Americans separately. In the model, wisdom, coping self-efficacy, and trait hope were the criteria variables, self-esteem was the control variable, and resilience was the predictor variable. The results of the block regressions are presented in Table 4.

In terms of African American resilience, self-esteem predicted 37% of the variance in the first block of the model, $F(1, 132) = 78.16, p < .01$. Consistent with prediction, the combination of the positive psychology variables predicted an additional 15% of variance in the second block of the model, $F_{change}(3, 129) = 13.36, p < .01$. Only self-esteem ($b = .33, p < .01$), coping self-efficacy ($b = .19, p < .05$), and trait hope ($b = .28, p < .01$) were held as significant predictors in the final model. The combination of positive psychology variables accounted for an additional variance (15%) in the final model, suggesting that these variables may have clinical utility as a predictor of resilience scores in combination with self-esteem.

In the model regarding European American resilience, self-esteem predicted 43% of the variance in resilience scores, $F(1, 259) = 191.90, p < .01$. Consistent with the hypotheses, the combination of positive psychology variables predicted an additional 17% of variance within the second block of the model, $F_{change}(3, 256) = 34.87, p < .01$, accounting for a total of 60% of total variance within resilience scores. All variables: self esteem ($b = .32, p < .01$), wisdom ($b = .09, p < .05$), coping self-efficacy ($b = .21, p < .01$), and trait hope ($b = .33, p < .01$) were retained as significant individual predictors of resilience in the final model. Again, the combination of positive psychology variables

accounted for an additional variance (17%) in the final model, suggesting that these variables may have clinical utility as a predictor of resilience scores in combination with self-esteem.

Discussion

In review, the purposes of the current study were to: (a) determine differences in self-reports of wisdom, hope, and coping self-efficacy between African American and European American college students; (b) determine if relationships exist among the study's variables, (c) and examine if the linear combination of positive psychology variables could predict unique variance above and beyond self-esteem. In the following section, interpretation of the findings will be discussed in the context of previous empirical work and future directions of study.

Ethnic Differences

In the beginning of data analysis, a MANOVA was conducted to determine ethnic differences in self reports of positive psychology variables. Consistent with prediction, there were differences in reports of positive psychology variables; where African Americans reported higher levels of wisdom and coping self-efficacy. These self-reported ethnic differences are consistent with previous literature that suggests African Americans develop, experience, and express resilience differently (as a minority group) than members of dominant culture (Greer, & Chwalisz, 2007). One explanation for these findings may be parental practices of African American families who are preparing their adolescent for college life. As research suggests, socialization by African American parents may equip students with coping tools needed to succeed in a stressful college

environment (Brown & Tylka, 2010). As part of these practices, African American students may develop important intrapersonal resources that may facilitate more positive outcomes as they begin their college careers. Future researchers should examine the impact of African American parenting styles on the development of key positive psychological resources in college-aged adults. Such research will help further the understanding of how these factors differentially develop for African Americans as well as explain how parenting techniques influence preparedness for college life.

Univariate Associations

Bivariate correlations revealed significant relationships between positive psychology variables and hardiness. In African American and European American samples, self-esteem, wisdom, coping self-efficacy, and trait hope were positively correlated to hardiness. Such findings are consistent with previous research which suggests that positive psychology variables promote higher levels of factors that promote well-being (Nicholls et al., 2010; Wu, 2011; Avey et al., 2012). However, the design of the current study was cross-sectional. It is important that future studies examine the nature of these relationships across time. Longitudinal associations often generate inferences about the promotional qualities of one variable on another. In addition, longitudinal associations provide a more accurate representation of the interaction among these variables in the development and maintenance of hardiness.

Multivariate Results for African American Students

Regression findings for African Americans indicate that self-esteem was a significant predictor of hardiness, which is consistent with previous research (Veselska et

al., 2009; Burns & Anstey, 2010; Marigold et al., 2010; Hames, & Joiner, 2012).

However, the main thrust of this paper was to determine if the combination of the positive psychology variables could predict a unique amount of variance in hardiness above and beyond self-esteem. Results indicated that a select amount of positive psychology factors predicted a unique amount of variance in hardiness scores.

Specifically, coping self-efficacy and trait hope were unique predictors of hardiness for African American students. These findings support the position that coping resources and estimates of optimism are important factors in the development of hardiness (Taylor, & Reyes, 2012; Wu, 2011). However, the current study was one of the first to link these positive psychology attributes to an African American sample of college attending emerging adults. Compared to European Americans, little is known about how African Americans youth develop and maintain a stable sense of resilience. The results of the current study suggest that cultivating a sense of mastery in challenging situations and maintaining a sense of hope in everyday life seem important in fostering a hardy orientation. It is important that future researchers examine identity development processes for African American students to determine how coping self-efficacy and hope are integrated into African Americans' self-concept. Such examination may ultimately lead to a better understanding of hardiness development, especially during this development period.

Multivariate Results for European Americans

Regression findings for European Americans indicate that wisdom predicted a unique amount of variance in hardiness. However, results did not suggest the same for African Americans. Though wisdom is suggested to be a unique predictor of hardiness

for European Americans, this finding does not suggest that wisdom is irrelevant in exploring hardiness for African Americans. Rather, the measure used may be tailored more toward European American values of wisdom, because it was formulated on a predominately European American sample, and as a result, may not capture the values of wisdom for African Americans. Therefore, future research should include a more inclusive measure in cultural values of wisdom. Such measures would allow proper evaluation of wisdom in relation to resilience in African Americans.

Limitations

It is important to address the limitations of this study. These findings are correlational and cannot confirm causal relationships between positive psychology variables and hardiness. Subsequent research is needed to further examine the nature of resilience in college students across ethnicity in a more experimental fashion. Longitudinal studies may also be beneficial as it would provide some evidence of the protective and promotional qualities of positive psychology variables in hardiness. Furthermore, students who participated in this study provided self-reported data, which may be affected by social desirability. Also, the average age of the students who participated in the study was 19, which may suggest that these findings are representative of traditional college students and may not be able to be generalized to non-traditional students. The measures in this study may also be limiting in that the construction of the questions may not take into account ethnic differences in the nature of the variables measured. Future research should include more culturally sensitive measures.

Clinical Implications and Overall Conclusions

Alternatively, the current findings offer insight to cultural differences in resilience amongst African American and European American students. As expected, self-esteem, coping self-efficacy, wisdom, and hope were positively correlated with resilience for both African American and European American students. Interestingly, regression findings on African American students indicate coping self-efficacy and trait hope as unique predictors of resilience. These findings indicate the importance of examining identity development processes for African American students to determine how coping self-efficacy and hope are integrated into African Americans' self-concept. In addition, regression findings on European Americans reveal wisdom as a unique predictor for European Americans, but not African Americans. This may indicate the need to develop new measures of wisdom that capture the African American values of wisdom so that future research can evaluate hardiness in a culturally sensitive manner. Further examination in these findings may ultimately lead to a better understanding of hardiness development during the collegiate years.

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Table 1

Means, Standard Deviations, and Minimum and Maximum Scores

Variables (N) Scores	Mean (SD)	Min-Max
African Americans		
Trait Hope (N = 134) 70.68	69.00 (10.25)	67.32 –
Wisdom (N = 134) 188.28	184.45 (22.38)	180.62 –
Coping SE (N = 134) 196.13	188.98 (46.53)	181.83 –
Resilience (N = 134) 45.89	44.84 (6.53)	43.80 –
Self-Esteem (N = 134) 33.40	32.34 (6.79)	31.29 –
European Americans		
Trait Hope (N = 312) 68.63	67.42 (9.72)	66.22 –
Wisdom (N = 312) 181.25	178.50 (22.12)	175.76 –
Coping SE (N = 311) 180.69	175.56 (39.66)	170.44 –
Resilience (N = 311) 44.72	43.96 (5.94)	43.22 –
Self-Esteem (N = 311) 32.43	31.67 (5.88)	30.92 –

Table 2

Inter-correlations among Measures of Resilience, Self-Esteem, Wisdom, Coping Self-efficacy, and Trait Hope for African American Students

Variables	1	2	3	4	5
1. Resilience	---				
2. Self Esteem	.61**	---			
3. Wisdom	.43**	.34**	---		
4. Coping SE	.56**	.49**	.58**	---	
5. Trait Hope	.63*	.58**	.44**	.63**	---

Note: * $p < .05$, ** $p < .01$

Table 3

Inter-correlations among Measures of Resilience, Self-Esteem, Wisdom, Coping Self-efficacy, and Trait Hope for European American Students

Variables	1	2	3	4	5
1. Resilience	---				
2. Self Esteem	.65**	---			
3. Wisdom	.36**	.25**	---		
4. Coping SE	.61**	.56**	.39**	---	
5. Trait Hope	.68**	.61**	.38**	.63**	---

Note: ** $p < .01$

Table 4

Multiple Regressions on Resilience for African American and European American Students

Variables	Beta	β	SE β	t-value	F	R ²
African American – Resilience						
Block 1					78.16	.37**
Self-Esteem	.61**	.59	.07	8.84		
Block 2					13.36	.52**
Self-Esteem	.33**	.31	.07	4.28		
Coping Self-Efficacy	.03*	.19	.01	2.15		
Trait Hope	.18**	.06	.06	3.27		
European American – Resilience						
Block 1					191.90	.42**
Self-Esteem	.65**	.66	.05	13.85		
Block 2					34.87	.59**
Self-Esteem	.32**	.32	.05	5.97		
Wisdom	.09*	.03	.01	2.03		
Coping Self-Efficacy	.21**	.03	.01	3.82		
Trait Hope	.33**	.20	.04	5.70		

Note: * Significant at the .05 level

** Significant at the .01 level