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THE RELATIONSHIP OF PERFECTIONISM TO ACADEMIC

ACHIEVEMENT, SELF-ESTEEM, DEPRESSION, AND RACIAL IDENTITY IN

AFRICAN AMERICAN COLLEGE STUDENTS ATTENDING

PREDOMINANTLY WHITE UNIVERSITIES

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ABSTRACT

This study examined 253 African American college students on the constructs of perfectionism, academic achievement, self-esteem, depression, and racial identity. Cluster analysis was performed using the Almost Perfect Scale-Revised (APS-R). The results of the cluster analysis yielded 3 clusters that represented adaptive perfectionists, maladaptive perfectionists, and non-perfectionists. These three groups were compared on their scores of the Rosenberg Self-Esteem Scale (RSE), the Center for Epidemiological Studies-Depression Scale (CES-D), and the Cross Racial Identity Scale (CRIS).

The findings showed that the APS-R is a valuable tool for investigating perfectionism among African American students at majority White universities. Adaptive perfectionists performed at a higher level than maladaptive perfectionists as evidenced by GPAs. In addition, adaptive perfectionists had higher self-esteem scores than both the non-perfectionists and maladaptive perfectionists. Maladaptive perfectionists had higher levels of depression than adaptive perfectionists. Maladaptive perfectionists also were found to have higher scores in Pre-Encounter Self Hatred than adaptive perfectionists and lower scores in Internalization Multiculturalist Inclusive than adaptive perfectionists.

The study also focused on the current research findings for each scale, especially their validity and relevance to intercultural differences among groups. The limitations and strengths of this research are discussed and integrated. Finally, recommendations for further studies on these measures are suggested, particularly in relation to the utility of this research for African American college students.

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CHAPTER ONE

Introduction

Perfectionism and African Americans

There has been a proliferation of research on perfectionism examining White

American college students in recent years (Chang, 2000; Flett & Hewitt, 2002; Frost,

Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991; Rice, Ashby, & Slaney, 1998;

Rice & Slaney, 2002; Suddarth & Slaney, 2001). However, a comprehensive literature

review examining perfectionism found only one published study to date (Mobley, Slaney,

& Rice, 2005), which investigated African Americans as the major focus of study. The

literature discusses two types of perfectionism, adaptive and maladaptive (Frost,

Heimberg, Holt, Mattia, & Neubauer, 1993; Rice, Ashby, & Slaney, 1998; Rice &

Slaney, 2002; Slaney, Ashby, & Trippi, 1995). Hamachek (1978) described adaptive

(normal) perfectionists as those with a positive outlook about their lives regardless of

their performance; on the other hand, maladaptive (neurotic) perfectionists are those with

a negative outlook on their lives and who evaluate their successes in a poor light. Since

some African Americans are almost certainly perfectionists, and because there has been

little study specifically of African American perfectionists, additional studies need to

examine adaptive and maladaptive perfectionism in relation to African Americans.

In order to describe the defining characteristics of perfectionism, Slaney, Rice,

Mobley, Trippi, and Ashby (2001) revised the Almost Perfect Scale and developed the

Almost Perfect Scale-Revised (APS-R). The APS-R has three subscales: High Standards,

Order, and Discrepancy. Rice and Slaney (2002) posited that High Standards measures

the standards and expectations one has for his/her performance and level of achievement.

They described Order as signifying a person's desire for neatness and "orderliness." "Discrepancy measures the degree to which the respondents perceive themselves as failing to meet their personal standards for performing" (Rice & Slaney, 2002, p. 38). Rice and Slaney (2002) examined two student groups utilizing the APS-R and cluster analyses. In both of the studies, they found three clusters fitting the adaptive, maladaptive, and non-perfectionist classifications. They found maladaptive perfectionists to have higher Discrepancy subscale scores than adaptive and non-perfectionists. Maladaptive perfectionists also had higher scores on a measure of depression than adaptive perfectionists and non-perfectionists. Scores for non-perfectionists were lower on High Standards and Order. Discrepancy scores for non-perfectionists were between the adaptive and maladaptive perfectionists' scores. The authors also found that adaptive perfectionists had higher scores on self-esteem than maladaptive perfectionists and non-perfectionists. Further, Rice and Slaney (2002) found that the adaptive perfectionists had slightly higher GPAs than maladaptive perfectionists and non-perfectionists in the first study but the difference was not statistically significant. In the second study, adaptive perfectionists had significantly higher GPAs than the maladaptive perfectionists and non-perfectionists.

Grzegorek, Slaney, France, and Rice (2004) performed a cluster analysis based on the APS-R and found three groups that conformed to adaptive, maladaptive, and non-perfectionist categories. The authors' found that on the Blatt, D'Afflitti and Quinlan (1976) Self Criticism scale, the prediction held that adaptive perfectionists had lower scores than maladaptive and non-perfectionists. Maladaptive perfectionists were less satisfied with their GPAs than the adaptive perfectionists even though their actual GPAs

did not differ. Grzegorek et al. (2004) also studied the means of the three APS-R subscales across clusters in relation to similar scores taken from Slaney and Rice (2002). The outcomes were notably similar across the three clusters.

The authors held that the outcomes of the APS-R studies were useful for identifying students who had maladaptive perfectionism. However, almost all of the participants in their study were Caucasian. The dearth of work including racial and ethnic minorities was a shortcoming in their study as well as in the perfectionism literature.

Mobley, in his dissertation, (1998) and the later publication, Mobley, et al. (2005) found support for the validity of the APS-R with African American students at predominantly White universities. Mobley found three clusters based on APS-R scores and the subscale scores for the clusters of perfectionists were similar to those in Rice and Slaney's (2002) study. Also similar to Rice and Slaney's results, there was a positive association between discrepancy and depression and a negative association between discrepancy, self-esteem, and GPA. In contrast there was a positive association between adaptive perfectionism and self-esteem.

One important limitation of the perfectionism studies cited above is the lack of diversity in the samples as evidenced by low numbers of African Americans (Grzegorek et al., 2004; Mobley, et al. 2005). This is important because perfectionism might be a relevant variable to investigate in African Americans if maladaptive perfectionists are also more depressed, have lower self-esteem, and feel worse about achievement. It should be noted that racial identity is a critical variable to add to the study of African Americans. Racial identity is important in studying perfectionism because the construct is affected by how the individual looks at him/herself. One of the prisms through which self-identity

can be examined is racial identity. Consequently if we are to look at the how

perfectionism is manifested in individuals, looking at racial identity can help sharpen the

focus. Given the definition of discrepancy above it would be useful to examine how

African American students attending predominantly White institutions are affected when

their performance does not match their standards.

Consequently, this study will investigate the importance of perfectionism for

African American college students' academic achievement, self-esteem, depression, and

racial identity. Because there has only been one published study examining African

American college students and perfectionism (Mobley, Slaney, & Rice, 2005), this study

will add to the understanding of this issue by examining perfectionism within this group.

Academic Achievement and African Americans

The total number of African Americans attending universities has risen slightly

over the past twenty years, from 9% in 1976 to 11% in 2000 (Digest of Education

Statistics, 2002). According to the National Center for Education Statistics (U.S.

Department of Education, NCES, 1999-2000 National Postsecondary Student Aid Study,

2000), African Americans constitute the largest single ethnic group attending bachelor

degree-granting institutions in the U.S. after White Americans. White Americans

comprise 71.0% of the students who attend four-year universities, while African

Americans comprise 10.9%, Hispanic/Latinos 10.7%, Asian Pacific Islanders 6.7%, and

American Indian .8% (NCES; 2000). Consequently, researchers have examined academic

performance and retention of African Americans attending universities (Mitchell & Dell,

1992; Sellers, Chavous, & Cooke, 1998). The National Center for Education Statistics

(1995) reported that in comparison to whites, African Americans graduate at a lower rate.

One study found that 44% of African American students in comparison to 54% of their

White counterparts complete college degrees (Carter & Wilson, 1991). Without a college

degree, future career success may be compromised. For example, in 2000, college

graduates earned between 60 and 95 percent more than those who completed only high

school (U.S. Department of Commerce, Bureau of the Census. March Current Population

Survey, 1972-2001). Part of the relatively high unemployment rates, 11% for African

Americans and 5% for Latinos (U. S. Census Bureau, 2002), may be attributed to lesser

educational attainment, including less success in college. Additionally, studies on African

American college students have found that many experience negative encounters at

White institutions, have lower achievement, and higher attrition rates in comparison to

their white counterparts (Allen, Epps, & Haniff, 1991; Nettles, 1988).

   Given the problem of retaining African American college students in

predominantly white universities, it seems warranted to investigate reasons for this

pattern. Identifying the factors contributing to the low retention can lead to designing

interventions to increase graduation rates. Just as perfectionism is a factor contributing to

and detracting from academic achievement in White students, it may be expected to

influence the academic achievement of African Americans.

   Because of the increase in the Black college student population and high attrition

rates, the examination of African American academic achievement has become more

prevalent in the literature (Czopp, Lasane, Sweigard, Bradshaw, & Hammer, 1998;

Morgan, 1990). Achievement has been investigated and found to be associated with

various factors/variables in the literature including perfectionism, self-esteem, and racial

identity (Cokley, 2000; Mobley, Slaney, & Rice, 2005; Rice, Ashby, & Slaney, 1998;

Sellers, Chavous, & Cooke, 1998). Given previous studies of the general population, one could expect to find achievement related to adaptive and maladaptive perfectionism. Although Mobley et al. (2005) investigated perfectionism in relation to African Americans and achievement, they did not examine the variables of self-esteem, depression, and racial identity together as they relate to perfectionism. Other studies on academic achievement have investigated self-esteem and depression but not in conjunction with racial identity and perfectionism.

Self-Esteem and African Americans

Level of self-esteem has been found to be associated with college students' academic achievement. Several researchers have examined the relationship between self-esteem and academic achievement among African Americans (Carter, DeSole, Sicalides, Glass, & Tyler, 1997; Graham, 1994; Major & Schmader, 1998; Phinney, Cantu, & Kurtz; Porter & Washington, 1993; Schmader, Major, & Gramzow, 2001; Steele, 1997). These researchers consistently found a positive relationship between self-esteem and achievement.

While adaptive perfectionism is related to higher self-esteem, maladaptive perfectionism is related to lower self-esteem. Much research exists on self-esteem and its relationship to perfectionism, racial identity, and academic performance. However, research investigating self-esteem and the aforementioned variables focusing on African American college students is lacking. Thus, an investigation of self-esteem and its relationship with perfectionism, racial identity, and academic achievement is warranted.

Depression and African Americans

According to the National Mental Health Association (NMHA; 2004), the prevalence of depression in African Americans has been under-reported because African Americans have been reluctant to enter treatment due to their perception of discrimination and a likelihood of unwarranted institutionalization. Poor primary care and lack of medical care may also contribute to problems with appropriate diagnoses. A few studies of non-African American populations have found a relationship between adaptive and maladaptive perfectionism and their link to academic achievement, self-esteem, and psychological problems such as depression (Flett, Hewitt, & De Rosa, 1996; Hewitt & Flett, 1993; Rice, Ashby, & Slaney, 1998; Rice & Slaney, 2002; Slaney & Johnson, 1992). For example, Grzegorek, et al. (2004) found that maladaptive perfectionists had higher scores than adaptive perfectionists on the Self-Criticism scale of the Depressive Experiences Questionnaire. The question arises: Would the results be similar for African Americans? Despite the problems with the diagnosis of depression, it is important to understand how perfectionism among African Americans is related to depression. As Rice and Slaney (2002) used the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977) to measure aspects of depression, so will this study.

Racial Identity and African Americans

Racial identity has played a role in academic achievement for African Americans and is an important factor in their beliefs and ability to succeed (Fordham & Ogbu, 1986; Marryshow & Boykin, 1992; Sellers, Chavous, & Cooke, 1998). Helms (1990) defined racial identity as a collective identity whose basis is the perception of a common racial heritage. Although racial identity theory is one of the most frequently explored themes in

the African American psychology literature, no studies have been found that examine the relationship between racial identity and perfectionism. Based on the racial identity models/statuses (Vandiver, Cross, Fhagen-Smith, Worrell, Swim, & Caldwell, 2000), there are likely to be differences between the African American groups based on perfectionism in terms of racial identity.

Summary

Over the past thirty years racial identity, self-esteem, and depression have been individually examined as important factors affecting academic achievement among college students (Hamachek, 1978; Luhtanen & Crocker, 1992; Poindexter-Cameron & Robinson, 1997; Rosenberg, 1965; Slaney & Johnson, 1992; Wilson & Constantine, 1999). Despite their importance, to date, no known studies have examined these variables exclusively among African American college populations attending predominantly White institutions using perfectionism as the independent variable.

Rationale for the Study

Because no studies were found that directly examine perfectionism among African American college students in relation to academic achievement/performance, self-esteem, depression, and racial identity, this work will break new ground. The results of this study may provide avenues for programs, departments, researchers, and clinicians to utilize when studying and working with African American students. This study may also aid mental health professionals in working with African American college students to address perfectionism concerns and identify factors that may be contributing to students' academic performance, achievement, and psychological health in predominantly white universities.

Purpose of the Study

  This study investigated whether African American university students divided into adaptive, maladaptive, and non-perfectionists based on their scores on the APS-R will produce results similar to the results found for the majority undergraduate/graduate student population on measures of academic achievement, self-esteem, depression, and racial identity.

CHAPTER TWO

Literature Review

This chapter reviewed the existing empirical literature on the constructs of

perfectionism, academic achievement, self-esteem, depression, and racial identity. The

definitions of these variables and the scales measuring the multiple dimensions of the

variables were reviewed. This chapter focused on the current research findings for each

scale, especially their reliability, validity, and relevance to cultural differences. The

limitations and strengths of this research were discussed and integrated. Finally, the

hypotheses for the proposed study were presented.

Perfectionism

This literature review examined the available measures of perfectionism. While a

scale measuring the perfectionism construct was developed by Burns (1980), the first

scales that recognized its multidimensionality were developed only in the last decade

(Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991; Slaney & Johnson,

1992). For the purposes of clarity, MPS-F will be used to identify the Frost et al. (1990)

scale and MPS-HF will be used to identify Hewitt and Flett's (1991) scale. Since the

development of these scales, there has been an increasing amount of research on

perfectionism (Ashby & Kottman, 1996; Blatt, 1995; Flett & Hewitt, 2002; Frost,

Marten, Lahart, & Rosenblate, 1990; Hamachek, 1978; Hewitt & Flett, 1991; O'Conner

& O'Conner, 2003; Sherry, Hewitt, & Flett, 2003; Slaney & Johnson, 1992; Slaney, Rice,

& Ashby, 2002). Despite a considerable amount of research on the multidimensionality

of perfectionism, there is no clear agreement on how perfectionism should be measured.

A number of authors have developed instruments to measure the construct.

Frost, Marten, Lahart, & Rosenblate (MPS-F; 1990). For instance, Frost, et al.,

(1990) developed the Multidimensional Perfectionism Scale (MPS-F) consisting of six

subscales to measure perfectionism. The first scale, Concern over Mistakes (CM),

measured the distress individuals have over not succeeding. Personal Standards (PS)

measured the importance individuals place on high aspirations. The third dimension,

Parental Expectations (PE), measured individuals' perceptions of the standards set by

their family. Parental Criticism (PC) measured individuals' perceptions of the criticism

offered by their parents. Doubts about Actions (D), the fifth dimension, measured

individuals' "tendencies to feel that projects are not completed to satisfaction" (Frost et

al., 1990, p. 453). The last dimension, Organization (O), measured the importance of

having things organized and in order.

Frost et al. (1990) completed four studies on the MPS-F. The first study reported

the development of 47 items to measure the dimension of perfectionism. A principal-

factor solution was performed on the scales based on two samples of female

undergraduate students. Responses from Sample 1 (232 undergraduate students) were

used to refine items from the perfectionism scales for an initial factor analysis. For

sample 2, one-hundred and seventy-eight undergraduate students were given thirty-six

items based on the results of the factor analysis for the first sample. No racial breakdown

was provided for either sample.

A six-factor solution, one factor more than hypothesized, was identified with

sample 1 and replicated with sample 2: Factor 1 (CM) had nine items and accounted for

22.5% of the variance. Factor 2 (O) had 6 items and accounted for 12.5% of the variance,

Factor 3 (PS) had 7 items and accounted for 6.6% of the variance, Factor 4 (PE) had 5

items and accounted for 5.4% of the variance, Factor 5 (PC) had four items and accounted for 3.8% of the variance, and Factor 6 (D) had four items and accounted for 2.8% of the variance. The authors also used a Total Perfectionism (P) score. Reliability estimates based on the MPS-F scales ranged from .77 to .93 and for the Total Perfectionism scale reliability was .90. In addition, all of the scales were intercorrelated (.14 to .62, Mdn = .35) with the exception of the Organization subscale, which did not contribute to the Total Perfectionism score. The authors concluded that the Organization subscale should be excluded from the computation of the Total Perfectionism score because it had the poorest intercorrelations with the other MPS-F subscales and the lowest correlation with the Total Perfectionism score.

The second of the four studies in Frost et al. (1990) was conducted to establish the convergent validity of the MPS-F by correlating it with other measures of perfectionism, the Burns' Perfectionism Scale (Burns, 1980), the Self-Evaluative Scale (SE) from the Irrational Beliefs Test (IBT), Jones (1968), and the Perfectionism Scale from the Eating Disorders Inventory (EDI; Garner, Olmstead, & Polivy, 1983). The participants were 84 undergraduate female students in an introductory psychology course. The results indicated that Burns' scale correlated significantly with the Total Perfectionism score of the MPS-F (.85), and moderately with the SE scale from the Irrational Beliefs Test (.57) and the Perfectionism scale from the Eating Disorders Inventory (.65). The CM subscale had the highest correlations with the three perfectionism measures of any of the MPS-F subscales (the Burns Perfectionism scale = .87, the SE scale from the IBT = .61, and the Perfectionism Scale from the EDI = .57). Similar to the first study, the reliability

coefficients for the MPS-F subscales in the second study ranged from .77 to .91 (median = .82).

The third study examined the relationship between the various perfectionism dimensions and types of psychopathology (e.g., depression and degree of guilt) among non-clinical samples. The sample consisted of 72 female undergraduate students who completed the following questionnaires in small groups: the MPS-F (Frost et al., 1990), a shortened version of the Symptom Checklist 90-Revised (SCL-90; Derogatis, 1983), the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983), the Depressive Experiences Questionnaire (DEQ; Blatt et al., 1976), and the Situational Guilt Scale (SGS; Klass, 1987). The BSI scale has nine symptom dimensions and three indices that measure distress: general distress (GDI), frequency of symptoms (PST), and symptom intensity (PSDI). The DEQ was used to assess the relationship between perfectionism and depression and has three subscales entitled Dependency Depression, Self-Critical Depression, and Efficacy. The SGS has an overall measure of guilt and three subscales that measure dimensions of guilt that are named Interpersonal Harm, Norm Violation, and Self-Control Failure. It was hypothesized that the CM and D subscales of the MPS-F would be more highly correlated with measures of psychopathology (e.g., interpersonal harm, norm violation, and guilt) than the PS and O subscales of the MPS-F.

The Total Perfectionism score and the CM subscale had moderate correlations with Self-Critical Depression, .36 and .30 respectively. The D subscale had a moderate correlation with Self-Critical Depression (.44). Both the CM and D subscales had moderate correlations with Dependency Depression on the DEQ scale, .31 and .47 respectively. The PS subscale was correlated with the DEQ efficacy subscale (.53, p <

.001). None of the guilt measures correlated significantly with the Total Perfectionism score; however, the CM and D subscales were modestly correlated with all three of the SGS subscales and the overall measure of guilt. The correlation between CM and Interpersonal Harm (.29) was moderate as was the correlation between CM and Norm Violation (.26). The D subscale had modest correlations with the total guilt measure (.24) and with the Norm Violation subscale (.26).

Overall, the Total Perfectionism score, the CM, and the D subscales were the only perfectionism "measures" that correlated with indices of distress and measures of depression. Neither the PS nor the O subscale correlated significantly with the BSI scales. However, as hypothesized, the PS subscale correlated significantly with the DEQ's Efficacy subscale. These results indicate that both the CM and the D subscales are more closely related to symptoms of psychopathology than the PS and the O subscales of perfectionism.

The last of the four studies was conducted to expand on previous research about the relationship between perfectionism and compulsive behavior and to examine the relationship between perfectionistic thinking and procrastination. One-hundred and six female students completed the MPS-F, the Maudsley Obsessive Compulsive Inventory (MOCI; Rachman & Hodgson, 1980), the Everyday Checking Behavior Scale (ECBS; Sher, Frost, & Otto, 1983), and the Procrastination Assessment Scale-Students (PASS; Solomon & Rothblum, 1984). The MOCI consists of four subscales: Check, Wash, Slow, and Doubt. The PASS also has four subscales: Frequency, Severity, Fear of failure, and Task aversiveness.

The Total Perfectionism score and CM of the MPS-F were correlated significantly with the Total MOCI score (.50 and .52, respectively), three of the four MOCI subscales (Check .38 and .40, Wash. 34 and .33, and Doubt .46 and .44, respectively), and the total ECBS score (.21 and .27, respectively). The D subscale of the MPS-F correlated significantly with the Total MOCI score (.53), two MOCI subscales (Check .41 and Doubt .65), and the ECBS (.26). PS only correlated with the Total MOCI score (.38) and the D subscale of the MOCI (.40). O did not correlate significantly with any of the scales or subscales. Correlations between the subscales of the MPS-F and the PASS found that the Total Perfectionism score and CM were related to aspects of procrastination, particularly Fear of failure (.48 and .44, respectively) and Task aversiveness (.26 and .26, respectively). None of the MPS-F subscales were associated significantly with the Severity subscale, with the exception of D (.35). Additionally, the Fear of Failure subscale correlated significantly with each of the MPS-F subscales, except the Organization subscale (.01). The Task Aversiveness subscale correlated positively with all of the MPS-F subscales with the exception of PS (-.10) and O (-.25). Based on the results of the PS and O subscales, the authors concluded that there is evidence for the existence of some healthy or positive traits of perfectionism (e.g., planning, high standards, and completion of tasks).

Based on the findings of the four studies, Frost et al. (1990) provide support for the validity and reliability of the MPS-F and its utility in measuring dimensions of perfectionism. The CM subscale was found to have the highest correlations with several perfectionism measures (e.g., the Burns Perfectionism Scale, the SE scale, the Perfectionism scale from the EDI, and the SGS) and was most consistently associated

with measures of psychopathology/maladjustment. PS especially and O were found to be associated with healthy or adaptive traits. O was minimally associated with the Total Perfectionism score, the MPS-F subscales, and the SE scale. Additionally, the authors concluded that O might not be a primary component of perfectionism. Frost et al. (1990) were only able to find evidence for a relationship between guilt and the CM and the D subscales of the MPS-F. They did find support that the Total Perfectionism score, the CM, the PS, and the D subscales of the MPS-F were related to compulsivity. The results indicated that support was also found for the relationship between the Total Perfectionism score, the CM, the PE, the PC, and the D subscales and procrastination.

Based on the aforementioned findings, Frost et al. (1990) concluded that perfectionism is multidimensional and each dimension is related differently to measures of psychopathology (e.g., CM and PS with depression, CM and D with guilt, and all of the MPS-F subscales, excluding PS, with procrastination). Thus, the authors believe that persons might have differing quantities of total perfectionism and "varying amounts of each of the characteristics sampled by the subscales" (Frost et al., 1990, p. 467).

Hewitt and Flett (MPS-HF; 1991). Hewitt and Flett (1991) developed their measure of perfectionism, also named the Multidimensional Perfectionism Scale (MPS-HF). They argued that most of the research on perfectionism was limited because the previous measures primarily focused on the "nonsocial aspects of perfectionism" (Hewitt & Flett, 1991, p. 458). For example, previous measures (Burns, 1980; Frost et al., 1990) were more focused on an individual's thoughts about self whereas Hewitt and Flett (1991) highlighted that a persons' perceptions of themselves may be influenced by society and may be imposed on others. The MPS-HF measures three dimensions of

perfectionism: Self-Oriented, Other-Oriented, and Socially-Prescribed perfectionism.

Hewitt and Flett (1991) defined each dimension as follows:

> Self-Oriented perfectionism includes behaviors such as setting exacting standards for oneself and stringently evaluating and censuring one's own behavior. Other-Oriented perfectionists have unrealistic standards for significant others, place importance on other people being perfect, and stringently evaluate others' performance. Socially-Prescribed perfectionism involves the perceived need to attain standards and expectations prescribed
> by significant others (p. 457).

Thus, their measure incorporates both social and nonsocial dimensions of perfectionism. The researchers explored the multidimensionality of perfectionism by conducting five studies on their scale. Hewitt and Flett's (1991) article is composed of five separate studies. The first study was conducted to develop a set of reliable items for the three perfectionistic dimensions listed above while controlling for social desirability. A non-clinical sample of 156 psychology undergraduates (52 men, 104 women) from a Canadian university had an average age of 21 years. No racial information on the sample was provided. The participants were administered a pool of MPS-HF items and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

The results indicated that one gender difference occurred on one of the MPS-HF subscales; men scored higher than women did on the Other-Oriented subscale, t (154) = 2.57, p < .01. Coefficient alphas for the MPS-HF scores were Self-Oriented .86, Other-Oriented .82, and Socially-Prescribed .87. Self-Oriented perfectionism was not significantly correlated with social desirability, but Other-Oriented and Socially-Prescribed perfectionism subscales were correlated negatively and significantly with social desirability, -.25 and -.39, respectively. The authors reported that the

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intercorrelations of the MPS-HF subscales ranged from .25 to .40, "thus indicating some degree of overlap" (Hewitt & Flett, 1991, p. 458).

In the second study, the researchers collected data from both a non-clinical and clinical population. Participants consisted of 1,106 university students (399 men, 707 women) and 263 inpatient and outpatient psychiatric patients (121 men, 142 women). To assess the instrument's validity, a principal component factor analysis and the relationships between self and observer ratings were examined. The students were administered the MPS-HF in groups of 50, however, the patients were individually given the MPS-HF and other unidentified clinical scales. A subset of twenty-five students completed the MPS-HF and was asked to have a significant other fill out the MPS-HF "as they believed the target person would respond" (Hewitt & Flett, 1991, p. 458). In addition, a subset of twenty-one outpatients (gender not specified) was rated on an 11-point scale "to enable fine discriminations" (Hewitt & Flett, 1991, p. 459). Three clinical psychologists and one psychometrist administered the MPS-HF to the patients.

The results of separate factor analyses for the male and female students were considered equivalent. The alpha values for each of the subscales were Self-Oriented perfectionism (.89), Other-Oriented perfectionism (.79), and Socially-Prescribed perfectionism (.86). A principal-components factor analysis was run on the overall student sample. A three-factor solution (Factor 1 = 15 Self-Oriented items, Factor 2 =15 Socially-Prescribed items, and Factor 3 =13 Other-Oriented items) of the MPS-HF was retained based on the scree test and accounted for 36% of the variance. Only one gender difference was found for the patient sample, men had higher scores than women on the Other-Oriented perfectionism subscale, $\underline{t}$ (263) = 3.02, p < .01. The alpha values for the

clinical sample (inpatient/outpatient psychiatric population) were Self-Oriented

perfectionism (.88), Other-Oriented perfectionism (.74), and Socially-Prescribed

perfectionism (.81). Using identical factor-analytic procedures in the patient sample, the

three factors were retained and accounted for 34% of the variance. Coefficients of

congruence tested the factor structures for both samples, and were found to be similar

(Factor 1 = .94, Factor 2 = .93, and Factor 3 = .82). The MPS-HF scores from the target

students and the observers were significantly correlated on all three dimensions (Self-

Oriented = .35, Other-Oriented = .47, and Socially-Prescribed = .49). However, no

correlations were significant between the student targets and the observers' ratings when

different dimensions of perfectionism were correlated. For example, "the subjects' ratings

of Self-Oriented perfectionism and the observers' ratings of Other- Oriented

perfectionism" did not correlate significantly with one another (Hewitt & Flett, 1991, p.

460). Additional correlations were calculated between clinician ratings and the MPS-HF

subscales (Self-Oriented = .61; Other-Oriented = .43; Socially-Prescribed = .52). The

authors concluded that the findings supported the hypotheses that the MPS-HF has few

gender differences, is multidimensional, that there are three factors of perfectionism, and

that the different dimensions of perfectionism can be observed by others.

The convergent and discriminant validity of the three dimensions of perfectionism

were examined in Hewitt and Flett's (1991) third study. A total of 104 undergraduates (33

males, 71 females) with a mean age of 22.1 years participated in the study. The students

were randomly divided into three groups. The researchers identified the groups as

"sample 1, sample 2, and sample 3." The three samples of students completed the MPS-

HF and a subset of the following personality measures: the Attitudes Toward Self

(Carver, LaVoie, Kuhl, & Ganellen, 1988), the Self- and Other-Blame Scale (Mittelstaedt, 1989), the Authoritarianism Scale (Heaven, 1985), the General Population Dominance Scale (Ray, 1981), the Fear of Negative Evaluation Scale (Leary, 1983), the IBT (Jones, 1968), the Locus of Control Scale (Rotter, 1966), the Narcissistic Personality Inventory measuring total narcissism (Raskin & Terry, 1988), the Academic Standards Scale (a set of Performance standards), and the Symptom Checklist 90-Revised (SCL-90; Derogatis, 1983) which measured general and psychological distress. Sample one completed the MPS-HF, the personality measures, the performance standards, and the SCL-90 subscales. Thirty-four of the 104 participants in sample one were randomly selected to take the MPS-HF at Time 1 and at Time 2, three months later. A second sample consisted of 93 students (29 males, 64 females) who filled out the MPS-HF and the narcissism measure. A third sample consisted of 45 female students who completed the MPS-HF and the authoritarianism and dominance measures.

Overall, the results supported both convergent and discriminant validity for the MPS-HF Subscales. More specifically, Self-Oriented perfectionism correlated positively with two of the 18 Personality measures (High self-standards = .46 and Self-Criticism = .46). Self-Oriented perfectionism correlated highly with two of the seven Performance standards measures (Self-importance-performance = .57 and Self-importance-goals = .53) and all of the SCL-90 subscales. Thus, Self-Oriented perfectionism was most highly correlated with self-related personality measures, performance constructs, and the nine SCL-90 subscales, providing evidence for convergent validity. The correlations of the subscale scores of the SCL-90 were modest: somatization (.21, $p < .05$), obsessive-compulsive (.23, $p < .05$), interpersonal sensitivity (.23 $p < .05$), depression (.28, $p < .01$),

anxiety (.30, p <.01), hostility (.30, p <.01), phobias (.23, p <.05), paranoia (.23, p <.05), and psychoticism (.23, p <.05).

Other-Oriented perfectionism correlated highly with one of the Personality measures (Other-blame = .43) and correlated with two of the SCL-90 subscales (Phobias = .21 and Paranoia = .23).Socially-Prescribed perfectionism correlated highly with five Personality measures (Self-criticism =. 48, Overgeneralization = .42, Self-blame = .49, Other-blame = .35, and Fear of negative evaluation = .46). Also, Socially-Prescribed perfectionism correlated significantly with one Performance standard measure (Social importance goals = .36) and all nine SCL-90 subscales. The correlations of the subscale scores of the SCL-90 were as follows: somatization (.38, p <.001), obsessive-compulsive (.49, p <.001), interpersonal sensitivity (.45 p <.001), depression (.48, p <.001), anxiety (.30, p <.01), hostility (.30, p <.01), phobias (.38, p <.001), paranoia (.52, p <.001), and psychoticism (.37, p <.001). Other-Oriented and Socially-Prescribed perfectionism were most highly related to the tendency to blame others and social importance, respectively.

Again, these results were as predicted and provided evidence for the convergent validity of the MPS-HF. Hewitt and Flett (1991) believed that the findings provided support for the concurrent validity of the three MPS-HF subscales, but conflictual evidence for discriminant validity, because the only MPS-HF subscale that correlated with Self-importance for goals and performance was the Self-Oriented subscale. Additionally, other measures (e.g., Self-criticism, Authority, and Paranoia) correlated with more than one MPS-HF subscale. The results provided evidence that the Self-Oriented and Socially-Prescribed perfectionism subscales were related to adjustment difficulties in college students. Finally, evidence for the "temporal stability" of the three

MPS-HF subscales was provided. As mentioned earlier, the MPS-HF was taken by the

sample with a retest after 3 months to evaluate the test-retest reliability. The authors

found that the test-retest reliabilities were as follows: Self-Oriented Perfectionism (.88),

Other-Oriented Perfectionism (.85), and Socially-Prescribed Perfectionism (.75).

In the fourth study, Hewitt and Flett (1991) investigated the relationships between

perfectionism and maladjustment, perfectionism and impression management, and the

MPS-HF subscales and Burns' measure of perfectionism. They also sought to examine

the role of response biases in perfectionism. The sample consisted of 91 undergraduate

students (34 males, 57 females) with a mean age of 25.4 years. They completed the MPS-

HF and the following measures: the Multidimensional Anger Inventory (Siegal, 1986),

the Problem Situation Questionnaire (Klass, 1987), the Burns Perfectionism Scale

(Burns, 1983), and the Other-Deception Questionnaire (Gur & Sackeim, 1979).

As hypothesized, Self-Oriented perfectionism was correlated, though modestly,

with negative emotions (i.e., Guilt = .18, Self-disappointment = .27, Anger = .20)

indicating limited concurrent validity. Socially-Prescribed perfectionism correlated only

with Anger (.44), which the authors described as a "social emotion." All three MPS-HF

subscales correlated significantly with the Burns Perfectionism Scale (Self-Oriented =

.57, Other-Oriented = .40, and Socially-Prescribed = .39). The results provide some

support for the concurrent validity of the three subscales.

In the fifth study, Hewitt and Flett (1991) hypothesized that "perfectionism is

correlated significantly with the experience of certain personality disorders in psychiatric

patients" (Hewitt & Flett, 1991, p. 464). The participants were 77 adult psychiatric

patients (39 males, 38 females), 31 inpatients and 46 outpatients, who had a mean age of

35.86 years. Each participant had a DSM-III-R diagnosis. They completed the MPS-HF and the Million Clinical Multiaxial Inventory (MCMI; Million, 1983). The MCMI has three categories: Basic personality patterns (8 subscales), Pathological personality disorders (3 subscales), and Clinical symptom subscales (9 subscales).

Two of the three MPS-HF subscales, Other-Oriented and Socially-Prescribed, were correlated significantly with a variety of the MCMI categories. For example, Other-Oriented perfectionism correlated moderately with some of the subscales on the Basic and the Clinical categories (Narcissistic = .31 and Drug Abuse =.31, respectively). Socially-Prescribed perfectionism correlated significantly with each of the MCMI categories. The highest correlations from the Basic, Pathological, and Clinical categories were Passive Aggressive = .40, Borderline = .49, and Anxiety = .42, respectively. Self-Oriented perfectionism was not correlated with any of the Basic or Pathological categories of the MCMI measure but correlated with one of the Clinical symptom subscales (Hypomania = .33). Both the Self-Oriented and Socially-Prescribed perfectionism subscales had gender differences. Women, but not men, had statistically significant correlations between Self-Oriented perfectionism and Hypomanic symptoms, r (36) = .32, p<.05 and reduced symptoms of psychotic thinking, r (36) = -.27, p<.10. There were significant correlations between Other-Oriented perfectionism and Hypomania (.23) and Drug Abuse (.31) but no gender differences were found. Given the correlations between the MPS-HF and MCMI, there seems to be evidence that the three dimensions of perfectionism are related to both personality disorders and clinical symptoms. The authors identified evidence to support the use of a multidimensional approach to assess perfectionism and psychopathology.

Based upon the results of the five studies, Hewitt and Flett (1991) concluded that perfectionism is multidimensional, that each dimension is reliable and there is support for their validity with both college students and psychiatric patients. Each dimension related differently to symptoms of psychopathology and personality disorders. Consequently, the authors concluded that the MPS-HF might serve as a good tool for assessing both intrapersonal and interpersonal aspects of perfectionism.

Frost, Heimberg, Holt, Mattia, and Neubauer (1993) compared the two Multidimensional Perfectionism Scales (MPS-F; Frost et al., 1990; MPS-HF; Hewitt & Flett, 1991). The scales were examined by using Beck's Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the Positive Affect-Negative Affect Scale (PANAS; Watson, Clark, & Tellgen, 1988) a measure of positive and negative affect. Five hundred and fifty three undergraduate students (51% female, 49% male) from a large Eastern university were administered the two MPS's, the BDI, and the PANAS.

Frost et al.'s (1993) Total Perfectionism score correlated significantly with both the Self-Oriented (.49) and Socially-Prescribed (.57) subscales from Hewitt and Flett's (1991) MPS-HF, but had a smaller correlation with the Other-Oriented perfectionism subscale (.28). In spite of the small correlation, it was statistically significant. As expected, Frost et al.'s Personal Standards scale correlated significantly with Hewitt and Flett's Self-Oriented Perfectionism scale (.62). Additionally, five of Frost et al.'s subscales correlated significantly with Hewitt and Flett's Socially-Prescribed Perfectionism subscale (Concern over Mistakes = .49, Personal Standards = .16, Parental

Expectations = .49, Parental Criticism = .49, and Doubts about Actions = .28). These findings indicated that some of the subscales' item content is similar.

The BDI correlated significantly with four of Frost et al.'s subscales: Concern over Mistakes (.28), Parental Criticism (.22), Doubts about Actions (.31) and the Total Perfectionism scale (.24). These same subscales also correlated significantly with the negative affect (NA) score of the PANAS: CM (.26), PC (.21), D (.28), and the Total Perfectionism score (.26). The other two subscales were correlated significantly with the positive affect scores (PA) of the PANAS (Personal Standards = .25 and Organization = .14). Hewitt and Flett's (1991) Socially-Prescribed subscale was correlated positively with the BDI (.23) and NA (.24), while the Self-Oriented subscale was correlated only with PA (.19). Other-oriented perfectionism was not correlated with BDI, PA or NA. Frost et al.'s MPS-F subscales had statistically significant correlations with the BDI and PANAS, (i.e., D's correlation with BDI, .31). Despite the modest correlations, the relations were reasonable and as expected.

A factor analysis was conducted on the nine subscales from both MPS's and two factors were retained: Factor 1 was labeled Maladaptive Evaluation Concerns, and Factor 2 was called Positive Striving. Factor 1 was comprised of modest to high loadings for the following perfectionism subscales: Concern over Mistakes (.70), Parental Expectations (.72), Parental Criticism (.83), Doubts about Actions (.54), and Socially-Prescribed perfectionism (.79). Factor 2 was composed of modest to high loadings for the Personal Standards (.85), Organization (.61), Self-Oriented (.82), and Other-Oriented Perfectionism subscales (.54). Factor scores were derived and correlated with the BDI and the PANAS measures. The Maladaptive Evaluation Concerns factor was correlated

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significantly with the BDI (.31) and the NA (.29) from the PANAS. In contrast, the

Positive Strivings factor correlated significantly with PA (.24). The authors demonstrated

that Factor 1 correlated highly with CM, PC, PE, D, and Socially-Prescribed

perfectionism while Factor 2 correlated highly with PS, O, Self-Oriented, and Other-

Oriented perfectionism. Correlations of the two factors with the PANAS demonstrated

that Factor 1 depicted negative aspects of perfectionism and Factor 2 depicted positive

aspects of perfectionism. Results of this study may indicate that both MPSs measure both

negative and positive elements of perfectionism.

Slaney, Ashby, and Trippi (1995). A study by Slaney, Ashby, and Trippi (1995)

recognized some of the limitations of the previous scales measuring perfectionism and

sought to develop another scale to highlight other aspects of perfectionism that had not

been examined empirically. Hence, Slaney et al. (1995) reviewed previous research on

the construct of perfectionism and described a new perfectionism measure developed by

Slaney and Johnson (1992), the Almost Perfect Scale (APS). The subscales of the APS

consisted of the following: High Standards and Order, Anxiety, Interpersonal

Relationships, and Procrastination. Slaney et al. (1995) included two studies to assess the

concurrent validity and the factor structure of the APS subscales.

Study 1 was conducted to examine the relationship of the APS to other

perfectionism measures (MPS-F; Frost et al., 1990; MPS-HF; Hewitt & Flett, 1991) and

to other variables (e.g., depression, worry, and social desirability). The sample consisted

of 167 college students (124 females, 43 males) with an average age of 25.63 years who

were enrolled in upper-division classes. Each student completed the Burn's Perfectionism

Scale (BPS; Burns, 1980), the MPS-F, the MPS-HF, the Beck Depression Inventory

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(BDI; Beck, Steer, & Garbin, 1988), the Penn State Worry Scale (PSWS; Meyer, Miller, Metzger, & Borkovec, 1990), and the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960). The BPS is a 10-point scale used for measuring pathological aspects of perfectionism. The BDI measures depression while the PSWS scale assesses an individual's worry or anxiety level. Finally, the MCSDS is used to measure social desirability.

The results indicated that each of the APS subscales correlated significantly with the BPS (Standards and Order = .25, Relationships = .42, Anxiety = .30, and Procrastination = .29).The APS's Standards and Order subscale correlated highly with Hewitt and Flett's Self-Oriented Scale and moderately with the Other-Oriented subscale (.60 and .38, respectively). As expected, the Standards and Order subscale correlated highly with the PS and 0 subscales (.54 and .76, respectively) of Frost et al.'s MPS-F. Additionally, correlations between the Standards and Order subscale and the BPS and the PSWS were modest (.25 and .18, respectively). These correlations form a plausible network of relationships.

The APS's Relationship subscale correlated modestly with Hewitt and Flett's subscales (Self-Oriented = .37, Other-Oriented = .26, and Socially-Prescribed = .37). Slaney et al. (1995) were surprised that the correlations were identical for the Self-Oriented and Socially-Prescribed subscales due to the pathological nature of Hewitt and Flett's Socially-Prescribed subscale in other studies. Relative to the Frost et al. subscales, the Relationship subscale correlated with the CM (.41), PS (.25), PC (.17), D (.48), and 0 (.00) subscales. This subscale also correlated modestly with the BDI and PSWS scales (.41 and .23, respectively). The Anxiety subscale correlated modestly with each of Hewitt

and Flett's subscales (Self-Oriented = .44, Other-Oriented = .23, and Socially-Prescribed = .36). The highest correlations for the Anxiety subscale were with Frost et al.'s CM and D subscales (.49 and .57, respectively). Additionally, both the BDI and PSWS correlated significantly with the Anxiety subscale (.45 and .54, respectively). The Procrastination subscale correlated with only one of Hewitt and Flett's subscales, Socially-Prescribed Perfectionism (.29). In contrast, this subscale correlated modestly with the CM (.27) and D (.35) subscales along with the BDI (.34) and the PSWS (.25). The findings indicate that the pattern of correlations seem plausible and provide some support for the concurrent validity of the APS.

A factor analysis was conducted on the APS and both MPSs for the second part of this study. Two primary factors were extracted. Both MPSs and the APS had subscales with adaptive/healthy and maladaptive/unhealthy dimensions that mirrored the results found in Frost et al.'s 1993 study. As expected, both MPSs' subscales divided into two dimensions, adaptive and maladaptive. Standards and Order, on the APS, loaded on the adaptive factor (.89) and on the maladaptive factor (-.02). The Relationship, Anxiety, and Procrastination subscales all loaded on the maladaptive factor, .52, .56, and .59, respectively. Hewitt and Flett's (1991) Self-Oriented and Other-Oriented subscales loaded on the adaptive factor (.81 and .56, respectively) while the Socially-Prescribed subscale loaded on the maladaptive factor (.77). Organization on Frost et al.'s (1990) MPS was found to have the highest loading on the adaptive factor (.77), while D had the highest loading on the maladaptive factor (.69). Overall, the findings suggest that the Standards and Order, the Self-Oriented perfectionism, and the Personal Standards subscales are adaptive and measure positive dimensions of perfectionism. Similarly, the

authors suggest that the maladaptive subscales of the APS "...fit well with the data generated" by the two MPSs (Slaney, Ashby, & Trippi, 1995, p. 291).

The second study used a confirmatory factor analysis (CFA) to investigate the factor structure of the APS. The sample consisted of 568 students (363 women and 205 men) with a mean age of 19.32 years; 92% were European Americans, 3% were African Americans, 4% were Asian Americans, and 1% were Hispanic. Covariance matrices of the APS models were used to investigate the null, four-factor, and six-factor models.

The results indicated that the six-factor solution (GFI = .86; adjusted GFI = .84) fit best with the data in comparison with the null (GFI = .45; adjusted GFI = .42) and the four-factor model (GFI = .85; adjusted GFI = .82). As expected, each chi-square was found to be statistically significant (four-factor = 705.80; six-factor = 638.68; null = 2744.51). Surprisingly, the chi-square (X^2) df ratio was lower for the six-factor model (1.42) in comparison with the null and four-factor model, 5.53 and 1.54, respectively. The null model exceeded the criterion of 5.0. The Root-mean-square-residual (RMR) for both the four and six-factor models was low (.07). The delta values for the four and six-factor models did not meet the .90 criteria; they were .74 and .77, respectively. The results also indicated that the X^2 difference was statistically significant between the four and six-factor models, $X^2 (9) = 67.12$, $p < .001$. "For both the six-factor and the four-factor models, the majority of the terms of the modification indices were below the recommended level of 5.0" (Slaney et al., 1995, p. 293).

In conclusion, Slaney et al. (1995), study 1 found evidence that the Standards and Order subscale was correlated with adaptive aspects of perfectionism while Relationships, Anxiety, and Procrastination were correlated with maladaptive aspects.

The findings supported the APS's concurrent validity with the BPS and the two MPSs. The results from study 2 indicated that the six-factor model had a slightly better fit than the four-factor model but only by a small margin.

The next study in the literature was conducted by Slaney, Rice, Mobley, Trippi, and Ashby (2001) who did an exhaustive literature review on the perfectionism construct and the numerous scales measuring perfectionism (Hollender, 1965; Burns, 1980; Hewitt and Flett, 1991; Frost, Marten, Lahart, and Rosenblate, 1990; Slaney and Johnson, 1992; and Frost, Heimberg, Holt, Mattia, and Neubauer, 1993.) Based on the review, the researchers revised and expanded the APS to create the APS-R. They sought to develop a scale that would: a) clarify the variables which define perfectionism, b) support adaptive and maladaptive aspects of perfectionism, c) be consistent with known definitions of perfectionism, and d) be "empirically sound" (Slaney et al., 2001). They concluded that the APS did not sufficiently measure the maladaptive dimensions of perfectionism.

For their study there were 809 undergraduate students overall. The sample consisted of a total of 278 men, 502 women, and 29 with gender unspecified; 10.6% were African American. The measures included were the: (MPS-F; Frost et al., 1990; MPS-HF; Hewitt & Flett, 1991), the Beck Depression Inventory (BDI; Beck, 1978), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

Slaney et al. (2001) did an exploratory and two confirmatory factor analyses investigating the validity and reliability of the APS-R. In all three analyses, support was found for a three-factor measure of perfectionism that included the following subscales:

High Standards, Order, and Discrepancy. Results of the exploratory factor analysis indicated the following structure coefficients for Discrepancy, High Standards, and Order: factor 1 ranged from .23 to .81, factor 2 ranged from .23 to .82, and factor 3 ranged from .30 to .94, respectively. The alpha values for Discrepancy, High Standards, and Order were as follows: .92, .85, and .86. The relationship between the High Standards subscale and self-esteem was .15. The relationship between the High Standards subscale and GPA was .42. These relationships were slightly stronger than the relationship between the Self-Oriented subscale and self-esteem (-.07), and the Self-Oriented subscale and GPA (24). The Discrepancy subscale was negatively correlated with both self-esteem (-.35) and GPA (-.18). Slaney et al. (2001) concluded that the APS-R was a promising measure of perfectionism.

One study, Suddarth and Slaney (2001), emphasized the importance of examining both adaptive and maladaptive aspects of perfectionism and their relationships with academic achievement. Suddarth and Slaney (2001) examined adaptive and maladaptive aspects of perfectionism since most of the early research viewed perfectionism as a negative construct (Burns, 1980; Pacht, 1984; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Hewitt & Flett, 1991). They investigated the relationship between the APS-R and the perfectionism scales of Frost et al. (1993) and Hewitt and Flett (1991). One hundred and ninety-six students were recruited from two psychology courses to participate in this study, two were African American. The following measures were used in this study: the MPS-HF (Hewitt & Flett, 1991; the MPS-F (Frost et al., 1990), the APS-R (Slaney et al., 1996), the Rotter Internal-External Locus of Control Scale (Rotter, 1966), the Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982), and the State-

Trait Anxiety Scale-Trait subscale (Form Y; Spielberg, Gorsuch, Lushene, Vagg, &
Jacobs, 1983).

A principal-components factor analysis was used to examine the 12 subscales of
the three perfectionism measures. The results of the analysis yielded three factors that had
eigenvalues beyond 1.00: Factor 1 (Maladaptive) accounted for 35.5% of the variance
with an eigenvalue of 4.27, Factor 2 (Adaptive) accounted for 21.8% of the variance with
an eigenvalue of 2.61, and Factor 3 (Order/Organization) accounted for 10.6% of the
variance with an eigenvalue of 1.27. A multiple regression analysis was also conducted
which used the three factors from the principal-components analysis, as predictor
variables. The dependent variables were the Internal External Locus of Control Scale, the
Global Severity Index (GSI) from the BSI, and the Trait subscale of the State Trait
Anxiety Inventory. Results indicated that the F value for the Internal External Locus of
Control Scale was F $(3, 188) = 7.24$, p< .001, the R^2 was .10 and the adjusted R^2 was .09.
Factor 1 accounted for 7% of the variance and factor 2 accounted for 4% of the variance.
Results of the GSI analysis indicated that F $(3,188) = 26.67$, p< .001 and accounted for
30% of the variance. Factor 1 was statistically significant and related positively with the
GSI (.28). The regression analysis for trait anxiety indicated that the F value was F
$(3,188) = 42.15$, p< .001 and accounted for 40% of the variance. Factor 1 was statistically
significant, and 38% of the variance was accounted for with the semipartial r^2.

Suddarth and Slaney (2001) suggest that the Discrepancy subscale offers a
distinct measure which illustrates the maladaptive aspects of perfectionism (e.g., anxiety
and psychopathology) and the High Standards subscale illustrates the adaptive aspects of
perfectionism (e.g., academic achievement and self-efficacy). The results suggested that

perfectionism has both adaptive and maladaptive aspects. In view of the results, the authors recommended that "future studies examine the relationship between the adaptive aspects of perfectionism and academic achievement" (Suddarth & Slaney, 2001, p. 164).

Rice and Slaney (2002) conducted two studies using cluster analysis to identify adaptive perfectionists, maladaptive perfectionists, and non-perfectionists using the APS-R (Slaney, et al., 1996). For the first study, the sample consisted of 255 undergraduates (50 men, 205 women, 3 gender unspecified). Seven percent of the participants were African American. The participants completed the APS-R (Slaney et al., 1996), the Center for Epidemiological Studies-Depression Scale (CES-D; Radolff, 1977), the Rosenberg Self-Esteem Inventory (RSE; Rosenberg, 1965), the State-Trait Anxiety Inventory (STAI; Spielberg, Gorsuch, & Lushene, 1970), and a demographic questionnaire in which the students reported their cumulative grade point average (GPA).

As expected, the first study indicated a difference between adaptive and maladaptive perfectionists and non-perfectionists. There were no significant statistical differences for High Standards and Order subscales between the first (Adaptive) and second (Maladaptive) clusters. The maladaptive perfectionist cluster showed substantially higher Discrepancy scores. Thus, both adaptive and maladaptive clusters appeared to be perfectionistic. The third (Non-Perfectionist) cluster exhibited lower scores for the High Standards and Order subscales. Non-perfectionists' Discrepancy scores fell between the results for the two other clusters.

A multivariate analysis of variance (MANOVA) was performed and cluster membership served as the between-subjects factor. The dependent variables were six indicators of healthy (e.g., self-esteem and positive affect) and problematic adjustment

(e.g., depressed affect, somatic and vegetative activity, state anxiety, and trait anxiety). The MANOVA was significant, Wilk's Lambda = 0.65, $F (12, 496) = 10.13$, $p< .001$, $\eta^2 = .20$. A separate univariate analysis of variance (ANOVA) was conducted with GPA to avoid list-wise deletion of data resulting from missing GPA scores. Results of the univariate ANOVAs indicated significant between-cluster differences, except for GPA ($p < .09$). The effect sizes (η^2) ranged from .07 to .30 for the mean differences that were significant.

The results indicated that adaptive perfectionists had higher scores on positive self-esteem ($M = 36.06$) than either the maladaptive perfectionists ($M = 28.94$) and non-perfectionists ($M = 32.14$). On the other hand, maladaptive perfectionists had significantly higher scores on problematic adjustment than adaptive perfectionists and non-perfectionists. The authors also found that adaptive perfectionists ($M= 3.18$) and non-perfectionists ($M = 3.82$) had comparable scores on low depressed affect.

Three-hundred and seventy-five undergraduates (290 women, 85 men), of whom two percent were African American, participated in the second study. They completed the APS-R, the RSE, the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), the Anxiety Scale (Slaney & Johnson, 1992), and reported their GPA. Cluster analysis resulted in a three-cluster solution. There were 165 participants (32 men and 133 women) in cluster 1, 108 (22 men and 86 women) in cluster 2, and 102 (31 men and 71 women) in cluster 3. There were no significant gender differences, $\chi^2 (2; N = 375) = 4.81$, $p<.09$, $\Phi = .11$. The scores for both the High Standards and Order subscales from the first two clusters did not differ and were higher than the same subscales of the third cluster. Participants in cluster 2 scored higher on the Discrepancy subscale than those in

cluster 1, and the scores of cluster 3's Discrepancy subscale were in the middle of Cluster 1 and 2. Thus, cluster 1 identified adaptive perfectionists, cluster 2 maladaptive perfectionists, and cluster 3 was labeled non-perfectionists. Rice and Slaney (2002) conducted a MANOVA "…with cluster membership as the between-subjects factor and the five indicators of positive and problematic adjustment were used as the dependent variables" (p.43). Results of the MANOVA indicated the following: Wilks's Lambda = .69, $F (10, 734) = 14.83$, $p<.001$, $\eta^2 = .17$. The authors reported that the univariate ANOVAs were significant and had effect sizes (η^2) ranging from .03 to .16. The results indicated that adaptive perfectionists had higher scores on self-esteem, PPANAS, and GPA when compared to both the maladaptive perfectionists and the non-perfectionists. The maladaptive perfectionists scored higher on Anxiety ($M = 20.34$) than adaptive perfectionists ($M = 16.47$) and non-perfectionists (16.39). In addition, the maladaptive perfectionists had significantly higher scores on NA (26.35) than adaptive perfectionists.

Overall results from study 1 and 2 indicated that both the adaptive and maladaptive groups had higher scores on the High Standards and Order subscales than the non-perfectionists. In addition, the Discrepancy subscale scores were higher for maladaptive perfectionists. Thus, scores on the Discrepancy subscale help to discern the difference between adaptive and maladaptive perfectionists. Rice and Slaney (2002) concluded that the findings of the clusters in this study mirror those of other studies that also identified groupings (i.e., Ashby & Kottman, 1996; LoCicero & Ashby, 2000). All of the aforementioned studies in this section used some form of cluster analysis to examine the perfectionism construct. The next studies reviewed will examine a method of classifying students according to APS-R Standards and Discrepancy scores (Ashby,

Locicero, & Kenny, 2003; Grzegorek, Slaney, France, & Rice, 2004; Mobley, 1998; Mobley, Slaney, & Rice, 2005; Periasamy & Ashby, 2002).

Periasamy and Ashby (2002) conducted a study investigating the relationship between perfectionism and locus of control. In this study, perfectionists were operationalized as individuals whose High Standards subscale scores on the APS-R were above the 66th percentile (in the top third). The authors then used a median split on the APS-R's Discrepancy subscale to differentiate between the adaptive and maladaptive perfectionists. Adaptive perfectionists were identified as individuals with high standards and low stress levels (scoring below the median of the sample on the Discrepancy subscale). The low level of distress ensues from the difference between their personal standards and performance. On the other hand, maladaptive perfectionists were individuals with high standards and high stress levels (scoring above the median of the sample on the Discrepancy subscale). Non-perfectionists had scores below the 66th percentile on High Standards. A one-way multivariate analysis of variance (MANOVA) was used to analyze the data. Perfectionism (adaptive, maladaptive, and non-perfectionists) was the between subjects factor. The LOCS subscales (Internal, External-Powerful Others, and External-Chance) were the dependent variables.

The authors had two hypotheses. In the first hypothesis the authors posited that the adaptive perfectionists would have higher internal locus of control scores. The second hypothesis involved a measure of external locus of control by powerful others. Adaptive and non-perfectionists were expected to be less influenced by powerful others (lower levels of external control) than maladaptive perfectionists. The authors used the following measures in their study: a demographic sheet, the Almost Perfect Scale-Revised (APS-R;

Slaney et al., 2001), and the Locus of Control Scale (LOCS; Levenson, 1973). The sample consisted of two-hundred and sixty-two undergraduates (69% female, 31% male), of which 94% were European American.

Results indicated that the one-way multivariate test for perfectionism was significant, Pillai-Barlett trace (6, 452) = 5.29, p<.001. The three multivariate t-tests were: adaptive vs. maladaptive (T^2 = 6.40, p<.05), adaptive vs. non-perfectionists (T^2 = 8.56, p<.005), and maladaptive vs. non-perfectionists (T^2 = 12.50, p<.001). To investigate the differences between the three perfectionism groups on the dependent variables, univariate tests were utilized. Wolf's (1986) equation for group differences was utilized to calculate the effect size. Results showed that the adaptive perfectionists scored significantly higher than the non-perfectionists on the LOCS Internal scale, F (1, 191) = 11.57, p<.001, es = .66. Maladaptive perfectionists scored significantly higher than adaptive perfectionists on the LOCS External-Powerful Others scale, F (1, 65) = 9.708, p<.005, es = .72. Additionally, higher scores were observed with the maladaptive perfectionists on both the Internal and External-Powerful Other scales in comparison to the non-perfectionists, F (1, 198) = 7.70, p<.01, es = .50 and F (1, 198) = 9.16, p<.005, es = .54, respectively. The authors found no other important differences on specific variables between the adaptive, maladaptive and non-perfectionist groups.

The results indicated that both the adaptive and maladaptive perfectionists had higher levels of Internal Locus of Control in comparison to non-perfectionists. Subsequently, maladaptive perfectionists in comparison with adaptive and non-perfectionists, had higher levels of External Locus-Powerful Others. The first hypothesis that adaptive perfectionists in comparison with non-perfectionists would have

significantly higher levels of Locus of Control was supported. However, the second hypothesis, that adaptive perfectionists' Internal Locus of Control levels would be higher than that of maladaptive perfectionists, was not supported. Both adaptive and maladaptive perfectionists had high levels of Internal Locus of Control. Periasamy and Ashby (2002) posited that the rationale for these findings may be attributed to both types of perfectionists having a common goal of determination to meet their high standards.

Ashby, Locicero, and Kenny (2003) examined the relationship between perfectionism and psychological birth order. The authors used the following measures: a demographic sheet, the APS-R, and the Psychological Birth Order Inventory (PBOI; Campbell, White, & Stewart, 1991) in their study. Birth order subscales were titled first, middle, youngest, and only child and pertained to the birth order position. The sample consisted of one-hundred and thirty–six undergraduates (92 females, 44 males), 95% were European American. Ashby, Locicero, and Kenny (2003) asked whether psychological birth order is a significant determinant of whether participants are adaptive, maladaptive, or non-perfectionists.

Initially, Pearson correlation coefficients were used to analyze the data. The results showed that the High Standards scale of the APS-R was positively correlated with the First PBOI subscale, ($r = .31$, $p<.01$). The Discrepancy scale of the APS-R was positively correlated with both the Middle PBOI subscale ($r = .22$, $p.05$) and the Only PBOI subscale, ($r = .22$, $p<.05$) scales. As in the previous study by Periasamy and Ashby (2002), the authors categorized adaptive perfectionists as individuals whose Standards subscale scores on the APS-R were above the 66th percentile (in the top third of sample) and whose Discrepancy score was below the 50th percentile (in bottom half of sample).

The authors classified those individuals who had APS-R Standards scores above the 66th percentile (top third) and whose Discrepancy scores were above the 50th percentile (top half of sample) as maladaptive perfectionists. Non-perfectionists were classified as those individuals whose APS-R Standards score was below the 66th percentile. This classification system yielded the following: 23 adaptive perfectionists, 24 maladaptive perfectionists, and 89 non-perfectionists.

Next, the authors analyzed data by using a one-way MANOVA. Perfectionism was the between-subjects factor and the subscales (first, middle, youngest, and only) of the PBOI were the dependent variables. Results of the one-way MANOVA were significant for perfectionism, Pillai-Barlett trace (8, 262) = 3.31, p = .001. The other three multivariate t-tests were significant at p< .0375. The three multivariate t-tests were: adaptive vs. maladaptive (T^2 = 49.88, p = .001), adaptive vs. non-perfectionists (T^2 = 11.00, p = .016), and maladaptive vs. non-perfectionists (T^2 = 31.81, p = .007). Additionally, Tukey's procedure (following the Hotelling's T^2) was used to investigate the differences between the perfectionists groups on each dependent variable. When compared with the adaptive group, both the maladaptive and non-perfectionists had higher middle child birth-order scores, F (1, 45) = 11.97, p = .001 and F (1, 11) = 5.94, p = 0.16. Whereas, non-perfectionists had higher youngest child birth order scores than the maladaptive perfectionists group F (1, 112) = 7.64, p = .007.

Ashby, Locicero, and Kenny (2003) in analyzing the importance of psychological birth order suggest that there are differences between adaptive, maladaptive, and non-perfectionists. Specifically, the results showed that in comparison to maladaptive and non-perfectionists, adaptive perfectionists had fewer traits (e.g., believing that they were

less valued than their brothers and/or sisters) that were ascribed to middle children. The authors stated that this finding was consistent with the literature which suggests that adaptive perfectionism is a contributor to self-esteem (Ashby & Rice, 2002). The results indicated that in comparison to non-perfectionists, both adaptive and maladaptive perfectionists had fewer traits which are ascribed to the youngest children. Finally, the authors are in agreement with Adler that the way individuals see their position in the family group is aligned with the construct of perfectionism.

Grzegorek, Slaney, France, and Rice (2004) conducted a cluster analysis with the APS-R which generated data for three groups that were indicative of adaptive, maladaptive, and non-perfectionists. The authors used the following measures: the Almost Perfect Scale-Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1996), the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), GPA, and Satisfaction with GPA in their study. There were two parts of this study. In the first survey the participants were asked to complete the APS-R, the RSE, the DEQ, and a demographic questionnaire. The students also gave their cumulative GPA and answered a question regarding their satisfaction with their GPA. Three weeks later the participants filled out the APS-R to obtain test retest information. A hierarchical cluster analysis was performed which utilized Ward's linkage method along with the Euclidian measure to discern groupings. Next a hierarchical k-means cluster analysis was conducted using a three-cluster solution. The nonhierarchical analysis indicated that 84 participants were in the first cluster (adaptive), 72 were in the second cluster (maladaptive), and 117 were in the third cluster (non-perfectionists).

A MANOVA was conducted to ascertain if the mean subscale scores differences were significant among the three clusters. The MANOVA utilized the subscales of the APS-R, self-esteem, self-critical depression, dependency, GPA, and satisfaction with GPA which all represented dependent variables and cluster membership which represented the between subjects factor. Findings indicated that the overall score for the multivariate model was significant (Wilk's $\Lambda = 0.15$), $F (16, 438) = 44.11$, $p < .001$). Univariate ANOVAs showed that all but one (DEQ dependency measure) of the dependent variables differed significantly. The effect sizes for the differences ranged from .03 to .60.

The findings of the present study along with Rice and Slaney's work supported differences between the three perfectionist types (adaptive perfectionists, maladaptive perfectionists, and non-perfectionists). As predicted, the maladaptive perfectionists had significantly higher scores than adaptive perfectionists on the DEQ's Self-Criticism subscale. The findings in this study are consistent with results from Rice and Slaney's (2002) second study in that adaptive perfectionists had higher self-esteem scores compared to maladaptive perfectionists and non-perfectionists. Results also indicated that there were no differences for GPA between adaptive or maladaptive perfectionists. However, the authors found that maladaptive perfectionists were less satisfied with their GPAs than adaptive perfectionists.

Grzegorek, et al. (2004) noted that the findings of their study were consistent with the findings of Rice and Slaney (2002) in regards to APS-R's subscale means across clusters. Additionally, the authors noted that the participants in this study were predominantly White and that the limited number of minorities may be a shortcoming

with perfectionism studies. Grzegorek, et al. (2004) noted that further studies were needed which examined more diversified populations along with more studies exploring the utility of the APS-R.

Mobley, Slaney, and Rice (2005) was the first published study to examine the perfectionism construct with a sample of African American undergraduate students. It examined perfectionism and academic achievement in 251 African American college undergraduates (173 females, 77 males, and one student who did not indicate gender) with a mean age of 19.4 years. One hundred and fifty students were from a Mid-Atlantic university and 101 were from an Eastern Seaboard university. The participants completed the APS-R (Slaney, Rice, Mobley, Trippi, & Ashby, 2001), the Self-esteem Inventory (SEI; Rosenberg, 1965, 1979), the Beck Depression Inventory (BDI; Beck, 1978), and the State Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970).

The responses of African American college students were examined by using a single-group confirmatory factor analysis (CFA) of the APS-R (Mobley, 1998; Mobley, et al., 2005). The Cronbach alphas for the APS-R were High Standards (.75), Discrepancy (.88), and Order (.81). The CFA indicated that "The goodness-of-fit index was .90, the chi-square/degrees of freedom ratio was 1.27 ($x = 271$, df = 213 with p = .0001), and the factor loading patterns ranged from .30 to .81 with only two items below .44" (Mobley, 1998, p. 58). The factor loadings for each factor were as follows: Discrepancy (.38 to .81), High Standards (.30 to .76), and Order (.58 to .81). Additional tests were conducted to investigate the model fit; the adjusted goodness of fit (AGFI) = .87 and the root-mean-square-residual (RMR) = 0.049. The values of the AGFI and the RMR range from .00 to 1.00 "with a value close to 1.00 indicating a good fit for the

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AGFI while a value less than 0.05 indicates a good fit for the RMR" (Mobley, 1998, p. 59). The authors concluded that the findings from the single-group CFA indicated that the three factors of the APS-R had comparable meanings for African American students.

A multiple-group confirmatory factor analysis for the APS-R was also conducted to compare the similarities and variations of the three factors between African Americans and European American college students. The results indicated that the multiple group CFA demonstrated an adequate goodness-of-fit (.88), a X^2/df ratio of 1.88, and a RMR of 0.15 for both samples of students. The RMR was higher than the recommended criteria of below 0.05. In addition, the chi-square difference was non-significant for the two samples. The results provide support that the APS-R three factor structure is equivalent for both African American and White college students. The Mobley (1998)/Mobley et al. (2005) results emphasized the need to examine this construct further with African Americans and in relation to other psychological and psychosocial measures (i.e. depression, anxiety, self-esteem, and academic performance). Mobley (1998)/Mobley, et al. (2005) also reported that the maladaptive and adaptive aspects of the APS-R received some tentative support for African American participants. For example, the results of Mobley, et al. (2005) indicated that Discrepancy correlated with self-esteem ($r = -.55$, p<.0001), GPA ($r = -.15$, p<.05), SatGPA ($r = -.19$, p<.01), and depression ($r = .26$, p<.01). Neither High Standards nor Order was associated with depression ($r = -.08$, p>.05; $r = -.08$, p>.05), respectively. However, High Standards correlated with self-esteem ($r = .35$, p<.0001) and SatGPA ($r = .15$, p<.05). These results suggest that the APS-R may have utility in examining African American participants.

Overall critique

Overall, these studies were beneficial in increasing understanding of the construct of perfectionism. Although Burns (1980) proposed that perfectionism was unidimensional, later studies present the concept of perfectionism as multidimensional. The subscales of both MPSs (MPS-F and MPS-HF), the APS, and the APS-R are relatively reliable and there is support for their concurrent validity. Additionally, interpersonal and intrapersonal dimensions of perfectionism were found to be associated differently with clinical disorders (Hewitt & Flett, 1991). Such results provide evidence to support the contention that perfectionism is multidimensional.

Sample sizes and gender representation varied widely. For example, the study by Frost et al. (1990) examined only females from a liberal arts college whereas the other studies used both men and women. Overall, these studies generally included more women than men. Consequently, gender differences in the study of perfectionism as a multidimensional construct remain unclear. Another limitation of these studies involves sample composition. Only one study, Hewitt and Flett (1991), examined clinical samples while the other studies examined students from two and four year colleges and universities; therefore the results may not be generalizable to clinical samples or non-student populations. The studies examining academic achievement used GPA as an indicator of achievement. GPA is influenced by a wide variety of factors and is not an adequate measure of achievement per se. Additionally, Rice and Slaney (2002) contended that the culture of the university and extraneous variables may also be related to perfectionism as it relates to achievement.

Most important, with the exception of Mobley, Slaney, and Rice (2005), none of the other published studies examined racial/ethnic differences. Mobley, et al. (2005) found similarities in the multidimensional structure of perfectionism in African American and European American university students. Although Mobley et al.'s (2005) study represents an important first step, comparison studies do not, of course, fully capture the wealth of experiences of African American students whose racial and cultural history, socioeconomic status, spiritual, and educational privileges have tended to vary significantly from those of Whites in America (Allen, 1988; Augelli & Hershberger; 1993; Mickelson, 1990; Watts & Carter, 1991). More research is needed to understand the relevance and importance of perfectionism for African American college students. For example, some researchers contend that there are intragroup differences among African Americans that require further study due to various cultural issues that are rarely addressed when racial identity and self-esteem are examined in the literature (Carter, DeSole, Sicalides, Glass, & Tyler, 1997; McCarthy & Crichlow, 1993; Phelps, Taylor, & Gerard, 2001).The purpose of the current study is to investigate whether the construct of perfectionism measuring African American students will produce results similar to those found for White students on measures of academic achievement, self-esteem, depression, and racial identity.

Based on the review of the literature, all three measures of perfectionism are promising. However, only the APS-R has examined the appropriateness of the use of the scale with African American college students. The next step might be to use the groupings of perfectionists similar to those of Rice and Slaney (2002) and Ashby and his colleagues in studying African American students.

Summary and research implications

Hamachek (1978) believed that perfectionism may be either normal or neurotic and that destructive tendencies were linked with neurotic or unhealthy types of perfectionism while positive tendencies were linked with normal or healthy types of perfectionism. The aforementioned perfectionism studies examined demonstrated a relationship between negative aspects of perfectionism measures (both MPSs and the APS-R) with both normal/healthy and neurotic/maladaptive dimensions (e.g., High Standards, Order, Organization, Depression, Anxiety, and Anger).

Mobley, Slaney, and Rice's (2005) results suggested that the APS-R was an appropriate measure for examining multidimensional aspects of perfectionism for African Americans. Besides Mobley et al. (2005), no published research has addressed African American students' perceptions of perfectionism. Future research would be beneficial if it involved examining African American responses on the APS-R using relevant dependent variables to determine if the results differ from European Americans. In addition, research examining perfectionism in African American student populations could be valuable regarding the validity and reliability of these scales across populations. Mobley, Slaney, and Rice's (2005) research on perfectionism could be extended by studying the psychosocial components of African American college students. The presence of discrimination and racism may lead to a greater occurrence of the maladaptive aspects of perfectionism (Broman, 1997; Cohen, 1998).

In conclusion, the findings of the studies in this literature review provide some basis for further exploration of the multidimensionality of perfectionism. Previous studies have documented the presence of compromised rates of self-esteem in racial identity

development (Arroyo & Zigler, 1995; Poindexter & Cameron, 1997). However, none of the current studies investigated such factors among African American college students. It would be important to understand how various components of perfectionism are manifested in African American college students considering the attrition rates of African Americans from four-year universities. For example, Astin (1982) found that the attrition rates of African Americans were higher than that of White Americans. More research is needed to determine what may cause maladaptive or adaptive perfectionist responses and their relationship to retention/attrition of African American students. To date, the APS-R is the only perfectionism scale which has been researched with an African American sample (Mobley, Slaney, & Rice, 2005). Additionally, it is the only scale developed for clinical use and thus has research that divides individuals into groups based on subscales in relation to expected psychological concerns. The APS-R will be used as the basis for analyzing groups. Groups will be determined based on the results of a cluster analysis. Academic achievement, racial identity, self-esteem, and depression will be examined in this literature review and will comprise the within-group variables analyzed in relation to perfectionism.

Academic Achievement and Performance in African Americans

According to the National Center for Education Statistics (U.S. Department of Education, NCES, 1999-2000 National Postsecondary Student Aid Study, 2000), African Americans constitute the largest single ethnic group attending bachelor degree granting institutions in the U.S. after White Americans. Yet retention and graduation rates among this population have been reportedly low (Dorsey & Jackson, 1995). White Americans comprise 71.0% of the students who attend four-year universities, while African

Americans comprise 10.9%, Hispanic/Latinos 10.7%, Asian Pacific Islanders 6.7%, and American Indians .8% (NCES; 2000). As a result, colleges and universities are being challenged to address issues that adversely affect African American students' college success. Hence, an area of focus within the literature on African American college development has been academic achievement/performance. Racial and cultural identities have been important variables considered within the research on academic performance (e.g., Fordham & Ogbu, 1986; Steel & Aronson, 1995).

Research on retention and attrition in African American students has investigated multiple factors such as academic performance (Dorsey & Jackson, 1995), racial ideology and racial centrality (Sellers, Chavous, & Cooke, 1998), noncognitive variables (Sedlacek, 1999), and self-concept (Cokley, 2000). Much of the literature has focused on high school populations citing a direct relationship between one or more of the aforementioned variables with academic achievement (Arroyo & Zigler, 1995; Fordham & Ogbu, 1986; Marryshow & Boykin, 1992). While most of the above research examines high school students, other studies have focused on African American college populations with similar results. For example, Dorsey and Jackson (1995) investigated the effect "noncognitive factors" had on African American students' academic performance at predominantly white institutions (PWIs). Academic performance was measured by the students GPA and responses to research questions that focused on six noncognitive factors pertaining to academic performance. The noncognitive factors were divided by the researchers into two groups, internal and external factors. Internal factors were comprised of self-concept, personal motivation, and aspiration. The external factors were academic quality, faculty relations, and the sociocultural environment. Eighty-six

African American juniors and seniors participated in the study. The authors did not specify the background information (e.g., gender makeup) of the students.

Results indicated that African Americans who perform well academically at predominantly White institutions (PWIs) attribute the success to contentment with their program, high self-concept, an ambitious nature, and high motivation. In addition, students who had limited resources (i.e., few African American faculty, unsupportive cultural environment, and lack of cultural sensitivity by the university) to assist with coping strategies in their academic environment experienced more stress. Dorsey and Jackson (1995) concluded that the students had a "high need for cultural identification and support" (p.193). Similarly, Defour and Hirsch (1990) conducted a study on African American graduate students and found that students who were "socially integrated" into a program performed better academically and psychologically. The researchers measured social integration in relation to the participants' psychological well-being and academic performance. Defour and Hirsch (1990) asserted that students from more integrated departments were better adjusted and saw themselves as making acceptable progress in their graduate work.

Only one study has specifically examined racial identity factors and academic achievement among African Americans over the past decade (Sellers, Chavous, & Cooke; 1998). Research has emphasized the importance of examining racial identity factors with African American college populations (Farrell, 1994; O'Conner, 1997; Sedlacek, 1999; Witherspoon, Speight, & Thomas, 1997). Sellers, Chavous, and Cooke (1998) investigated the relationships between academic achievement and two aspects of racial identity: racial centrality and racial ideology. Racial centrality was defined as "the

extent to which a person normatively defines herself or himself with regard to race" (p. 12). Racial centrality was described as being concerned about whether race is a central component of a person's concept of self. Racial ideology was defined as "general attitudes, characteristics, and values that the individual associates with Black people" (p. 12). The authors sought to examine the validity of two articles that investigated the correlations between racial identity and academic achievement. The first article by Fordham and Ogbu (1986) suggested that African Americans who have low racial centrality and identity had an Assimilation and Humanist worldview. The study found that they also had high GPAs. In contrast, the second study by Marryshow and Boykin (1992) suggested that people with a nationalist ideology and high racial centrality have high GPAs. Based on the two aforementioned positions, Sellers, Chavous, and Cooke (1998) conducted a more recent study examining both racial centrality and racial ideology. In addition, based on Rowley, Sellers, Chavous, and Smith's (1996) findings that racial centrality was a moderator for the correlation between African Americans' feelings for Blacks and personal self-esteem, Sellers, Chavous, and Cooke (1998) sought to investigate whether the correlation between racial ideology and cumulative GPA was moderated by racial centrality.

Two-hundred and forty-eight African American undergraduates (70.6% were female) 163 students from a predominantly white university (PWU) and 85 students from a historically black university (HBU) participated in the study. Sellers et al. (1998) used the Multidimensional Inventory of Black Identity (MIBI; Sellers, Rowley, Chavous, Shelton, and Smith, 1997) to assess racial centrality and racial ideology and used students' cumulative GPA to measure academic achievement. Racial centrality was

measured by a 10-item scale of questions (the questions were not listed). The MIBI's' Ideology scale has four subscales, Nationalist, Minority, Assimilation, and Humanist. The results of Sellers, Chavous, and Cooke's (1998) study indicated that African Americans' cumulative GPA was positively associated with racial centrality and racial ideology. Both nationalist and assimilation ideologies had a non-significant relationship with academic performance, unlike racial centrality which was significantly related to academic performance. The results indicated that well developed racial centrality and ideology are positively related to GPA.

A recent study by Cokley (2000) investigated the correlation between academic achievement and academic self-concept among African Americans. He defined academic self-concept as a student's feelings about his or her academic aptitude in comparison to others. The author sought to find whether class standing would affect academic self-concept and what factors accurately predicted academic self-concept. Two-hundred and six African American undergraduates (84 men, 122 women) who attended two primarily white colleges and universities (PWCUs) and three private historically black colleges and universities (HBCUs) participated in this study for extra credit. The number of students from HBCUs were 112 (67 males, 45 females), and the number of students from PWCUs were 92 (17 males, 75 females); the other two students did not report gender. The following two instruments were used in this study: The Academic Self-Concept Scale (ASCS; Reynolds, Ramirez, Magrina, and Allen, 1980) which measures academic self-concept, and the National Study of Black College Students questionnaire (Allen & Strong, 1996) which assesses students' GPA, gender, class status, and student-faculty interaction.

Multiple regression analysis for the PWCUs indicated that academic self-concept was strongly predicted by GPA and quality of student faculty relationships (adjusted R^2 = .37), $F(2, 80) = 21.25$, $p = .000$. Results from HBCUs multiple regression analysis indicated that academic self-concept was predicted by GPA, quality of student faculty relationships, and class standing (adjusted $R^2 = .23$), $F(3, 101) = 10.82$, $p = .000$. The author pointed out that students with higher GPAs had higher academic self-concept as measured by the Academic Self-Concept Scale. In contrast, students with low GPAs had lower academic self-concepts. Class standing was not found to be a significant predictor of academic self-concept with students who attended PWCUs.

A one-way ANOVA was done to investigate the variations of academic self-concept with five categories of cumulative GPAs (more than 3.5, 3.0 to 3.49, 2.5 to 2.99, 2.0 to 2.49, and less than 1.99). For PWCUs, the ANOVA indicated a significant effect of GPA $F(4, 81) = 8.16$, $p < .000$. Similarly, the ANOVA for HBCUs indicated a significant effect of GPA $F(4,107) = 3.43$, $p < .000$. Based on the results of this study, the authors reported that GPA was a good predictor of academic achievement; however, further research is needed to account for varying academic ability of students and various institutional norms regarding academics. The aforementioned studies have investigated race-related components in their evaluation of academic achievement which was measured by GPA. Based on the results of these studies, it would seem important to continue to incorporate measures of GPA and racial identity development among African American college populations in future studies.

As mentioned above, GPA is a measure of academic success. However, there are problems with using GPA by itself. According to Rigol and Kimmel (1997), grade

inflation is problematic because it limits the range of researchable GPAs to study. Students who apply to universities have GPAs at the high end of the spectrum so the grade inflation negatively influences the utility of GPA as a viable measure in admissions research (Sedlacek, 2003). In addition to GPA, other measures have been used to examine academic achievement. Some measures include: the Scholastic Aptitude Test (now called the SAT I), the American College Test (ACT), and the Graduate Record Examination (GRE). There are criticisms concerning the use of standardized tests.

The most significant problem is that they primarily measure a person's verbal and quantitative ability (Sedlacek, 2003). These tests do not take into account other forms of abilities or intelligence that a person may possess. For example, Sternberg (1985) posited that there are three types of intelligence: componential, experiential, and contextual. Componential intelligence describes a facility to understand and process information using structure and orderly classification in an unchanging context. This type of intelligence is common to those who do well on standardized tests. Experiential intelligence pertains to the ability to be creative. Contextual intelligence pertains to a person's ability to acclimate to a changing environment (i.e., persons who are able to handle the system). In reference to college admissions, componential intelligence is often considered the major criterion for entrance. Sedlacek (2003) posits that this type of intelligence may not be as viable an assessment for many other groups of students (e.g., women, gay men, athletes and ethnically diverse students) as it is for students from a more traditional background (e.g., middle–class, male, Eurocentric experience). Componential intelligence is vital to nontraditional students' success; however,

Westbrook and Sedlacek (1988) contend that experiential and contextual intelligence may also be prerequisites for nontraditional students to be successful.

Sedlacek (2003) posited that noncognitive variables (e.g., self-confidence, community involvement) have fewer problems as predictors and are useful in accurately forecasting academic achievement and the likelihood of retention of nontraditional students. Noncognitive variables are defined as experiential and contextual intelligence as noted by Sternberg (1985, 1986). Sedlacek and Brooks (1976) posited that there were seven noncognitive variables that were correlated with academic success for minority students. The seven variables are: 1) positive self-concept, 2) realistic self-appraisal, 3) understanding of and ability to deal with racism, 4) preference for long-term goals over short term or immediate needs, 5) availability of a strong support person, 6) successful leadership experience, and 7) demonstrated community service (Sedlacek & Brooks, 1976, pp. 53, 55-58).

Tracey and Sedlacek's (1984) study used the noncognitive variables developed by Sedlacek and Brooks (1976) and developed the Noncognitive Questionnaire (NCQ) to ascertain characteristics of nontraditional students that are more predictive of academic success than the SAT alone. The authors examined the utility of the NCQ in measuring the reliability, construct validity, and predictive validity of the noncognitive variables for African Americans and European Americans. The factors of the NCQ are as follows: 1) leadership, 2) fair academic opportunity, 3) preferring long-range goals, 4) academic self-appraisal, and 5) family support, 6) lack of perseverance, 7) self-confidence, and 8) academic familiarity. The NCQ was administered to two random samples of first year students at a large eastern university. Those students who completed the NCQ and had

available SAT scores participated in this study. For 1979, the sample consisted of 1,529 students (1,339 White, 190 Black), and the students entering in 1980 consisted of 444 students (355 White, 89 Black).

The NCQ consists of 18 Likert-type items, two nominal items, and three open-ended questions. The authors stated that all of the items, excluding the open-ended questions, had adequate test-retest reliability. The retest was done two weeks later and the correlations (N = 18) for the 20 items ranged from .70 to .94 and had a median of .85. The first open-ended question pertained to long-range goals (interrater r = .89) and to academic goals (interrater r = .83). The second question asked about past achievements (interrater r = .88). The third question pertained to extracurricular activities and positions held. It was rated on four dimensions: 1) number of activities (interrater r = 1.00), 2) leadership qualities (interrater r = .89), 3) academia (interrater r = .98), and 4) community involvement (interrater r = .94).

Both construct and predictive validity tests were conducted. A principal components factor analysis was performed on the items of the NCQ to ascertain whether the items loaded on the seven noncognitive dimensions. A separate analysis was performed on Blacks and Whites to determine whether or not similar structures resulted. The second analysis was performed to determine the validity of the NCQ as a predictor of academic success (i.e., GPA and enrollment status). Stepwise multiple regressions were utilized to investigate the predictive validity of both the NCQ and SAT scores on GPA (for the first and third semesters). In addition, to ascertain the predictive validity of both the NCQ and SAT scores, stepwise discriminant analyses were used.

Results of the construct validity analysis indicated similar structures for White and Black students. Tracey and Sedlacek (1984) listed the factor analysis for the Black students only since the study concerned minority students. Results supported all but one of the noncognitive variables with item loadings ranging from -.58 to .90. The non-supported variable, factor VIII (academic familiarity) was not correlated with academic self-confidence but rather it measured familiarity with the environment in academia.

Results of the predictive validity analysis pertained to items that had a significant effect on one or all of the following criteria: first semester GPA, cumulative GPA after the third semester, or enrollment status. The authors noted that in each analysis, the items of the NCQ were more alike or more predictive of academic success than SAT scores alone. In particular, the NCQ positive self-concept items (3 and 8) and realistic self-appraisal (item 2) were more correlated with the three-semester criteria than SAT scores. By combining the SAT scores with the items on the NCQ, there were better predictions (than the SAT scores alone) for the eight analyses. Both the SAT and NCQ scores contributed to the ability to predict academic success for Black and White students. In 1979 and 1980, the NCQ was more predictive for how well White students performed as opposed to Black students when examining first semester grades. For Black and White students, first semester grades were correlated with items three and eight (positive self-concept) and items 9, 12, and 13 (realistic self-appraisal). In addition, the following variables: community involvement, leadership, and preference for long-range goals were found to be predictive for the White subsample and first-semester grades. For both subsamples, third-semester cumulative GPA was highly correlated with the following noncognitive variables: positive self-concept (items 8, 11, and 3 were for Whites) and

realistic self-appraisal (item 2 for Blacks and items 2, 6, and 13 for Whites). For Whites, cumulative GPA was related to preference for long-range goals and recognizing racism.

The last analyses found a strong correlation between the items of the NCQ and enrollment after three semesters. This was true for Blacks but not for Whites. For Blacks, realistic self-concept, positive self-concept, support, and community involvement were correlated with continued enrollment. However, for Whites, only the realistic self-appraisal variable was related to enrollment. Tracey and Sedlacek (1984) posited that the findings indicate adequate reliability and construct validity for the NCQ. In addition, the predictive validity of the NCQ was found for both subsamples when used alone or in conjunction with the SAT. In terms of college persistence, high predictive validity was found for the NCQ and Black students.

Another study by Tracey and Sedlacek (1987) investigated the similarity of determinants of academic achievement for African American and European American students by using the NCQ. The authors examined three measures of academic success: first-semester GPA, tenacity after three semesters, and tenacity after five semesters. To investigate the correlation between GPA and persistence, students' first semester grades were utilized. One-thousand six-hundred and eighty-three students (208 Black, 1,475 White, gender not indicated) participated in this study.

The LISREL VI (Joreskog & Sorbom, 1983) was used to analyze the data and investigate two questions. The first question pertained to investigating the similarity of the NCQ factor structures for Black and White students. Secondly, they examined the academic success of Black and White students to determine where the differences were among the samples. Tracey and Sedlacek (1987) used 16 items of the NCQ to depict the

seven cognitive constructs. Academic familiarity was not included because preliminary investigation indicated that the items that were representative of this construct had little overlap. The validity of the Black sample was examined and was significant [X^2 (96, N = 208) = 218.21, p<.001]. The goodness of fit (GFI) statistic was shown to be adequate (GFI = .90, X^2/df = 2.3), and all modification indices were below 5.0. Similarly, for the White sample, the model results were significant [X^2 (96, N = 1475) = 531.86, p<.001]. The other indicators of fit (GFI = .96, X^2/df = 5.5) were mixed and 12 of the parameter modification indices were greater than 5.0. The authors posited that the model was a better fit for the Black students than for the Whites.

Tracey and Sedlacek (1987) added an eighth construct, academic ability, to the seven-construct model and used both the verbal and quantitative SAT scores as indicators of this eighth construct. Then the eight predictors of academic achievement were investigated to determine what correlations existed between the predictors and academic achievement measures (first-semester GPA, three-semester enrollment status, and five-semester enrollment status). The authors hypothesized that, for the Black sample, there would be a correlation between noncognitive constructs and enrollment dimensions. They expected that "the traditional predictor of academic ability would be predictive of only first semester grades but not persistence" (p. 341). The goodness of fit was significant [X^2 (163, N = 208) = 325.71, p<.001] and (GFI = .88, X^2/df = 2.0). The other indicators of fit were significant and all but two of the modification indices were below 5.0.

Tracey and Sedlacek (1987) wanted a more parsimonious model so they revised the structural model. Results of the new model indicated a significant goodness of fit [X^2 (170, N = 208) = 254.21, p<.001. The other indicators of fit were adequate (GFI = .90,

$X^2/df = 1.5$), and all of the modification indices were below 5.0. In addition, all of the t-tests were significant at .05. The final model accounted for 47% of the variance in all three measures of academic achievement (R^2 for GPA = .37, R^2 for three semester persistence = .20, R^2 for five semester persistence = .30). Results also indicated that traditional academic ability (SAT verbal and SAT quantitative) was significant in predicting first semester GPA for Blacks. In regards to the NCQ, outside support for academic plans was correlated with GPA. With the exclusion of racism, the other NCQ variables predicted Black students' persistence after three semesters. In addition, for Black students, neither academic ability nor first-semester GPA predicted persistence in school after three or five semesters.

From the results of the indices of fit, the authors found that the Black model of academic success was not as adequate a model as the White model of academic success. They concluded that various processes are involved in academic achievement for both Black and White students. SAT scores were the best predictors for White students, and first-semester grades served as a vital predictor of persistence in school. Similarly, SAT scores were also the best predictors for Black students' first semester grades. However, the grades were not correlated with Black students' perseverance in school. The noncognitive dimensions had a stronger effect on Black students' persistence in school in comparison to Whites.

Sedlacek and Adams-Gaston (1992) examined whether noncognitive variables rather than SAT scores were better predictors of student athlete (nontraditional students) academic success. The measures used were GPA, SAT scores, and the NCQ. One-hundred and five freshmen (64% men, 15% black) participated in this study. Prior test-

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retest reliability estimates of the NCQ ranged from .70 to .94 with a median of .85. Step-wise multiple regression was used with the scores from the NCQ and SAT to predict grades of the students during their first semester.

The results indicated that the alpha reliability estimates of NCQ scores ranged from .73 to .90. There were no correlations between first semester grades and the SAT math (.02) or verbal (.05) scores beyond the .05 level. The Strong Support Person (.30), Positive Self-Concept (.28), Realistic Self-Appraisal (.26), and Community Involvement (.26) had positive correlations with first-semester grades at the .05 level. The athletes in this study scored the highest on Leadership (.20) and Nontraditional Knowledge (.17). The athletes scored the lowest on Handling Racism (.11) and Long Range Goals (.13).

Results of the step-wise multiple regression indicated that Strong Support Person (.30), Community Involvement (.40), and Positive Self-Concept (.45) all had significant ($p<.05$) correlations with first-semester grades. Sedlacek and Adams-Gaston (1992) posited that the results indicated that the NCQ has a significant relationship with first-semester student athlete grades, and SAT does not.

There are a multitude of studies examining academic achievement among White college students, but a limited number with African American college students. Comparison studies with multiple racial groups often contain such small samples of African American students that it is difficult to illuminate the salient factors affecting achievement in this ethnic group. The studies reviewed above examine academic achievement utilizing cognitive and non-cognitive variables. Non-cognitive measures seem to be able to ascertain characteristics of Black students that are more predictive of academic success than using cognitive variables alone.

The current study will therefore include noncognitive variables (as measured by the NCQ) such as support systems, academic familiarity, leadership, and self-appraisal in order to recognize some of the non-traditional achievement factors for this group. Specifically, for the purposes of this study, only the NCQ (and) subscales will be used. In addition, the cumulative GPA of the students and their satisfaction with their GPA will also be used to measure academic achievement.

Self-Esteem and African Americans

Self-esteem is defined as "an attitude of acceptance, approval, and respect toward oneself, manifested by personal recognition of one's abilities and achievements and an acknowledgement and acceptance of one's limitations" (Webster's II New College Dictionary, 1995, p. 1002). Historically, self-esteem research has centered on the individual; however, to people of color, group membership is especially vital as it plays an important role in a person's view of self. Researchers have investigated related components of self-esteem as it pertains to racial/ethnic groups. The link between self-esteem and racial identity has been well documented in the literature (Parham & Helms, 1985; Taylor, Brown, & Denton, 1996; Vandiver et al., 2002). These variables (self-esteem and racial identity) should also be considered when examining perfectionism and academic achievement in African American college students. A review of the following studies evaluating the importance of measuring self-esteem will further explain the reasons for proposing to investigate self-esteem.

Phelps, Taylor, and Gerard (2001) investigated racial identity, cultural mistrust, ethnic identity, and self-esteem among university students from three different African ethnic backgrounds. The groups were comprised of African, African American, and West

Indian/Caribbean students. The researchers cited the existing literature (Atkinson &

Thompson, 1992; Biafora, Taylor, Warheit, Zimmerman, & Vega, 1993; Hughes &

Demo, 1989; Porter & Washington, 1993) on between-group and within-group

differences in the areas of cultural mistrust, racial identity, and self-esteem. Three

research questions were addressed. The first was to determine if there was any disparity

between the three ethnically diverse Black groups on cultural mistrust, ethnic identity,

and racial identity. Secondly, the authors wanted to see if the groups differed on self-

esteem. Last, the investigators attempted to determine whether cultural mistrust, ethnic

identity, and racial identity are predictors of self-esteem. Phelps et al. (2001)

administered the Cultural Mistrust Inventory (CMI; Terrell & Terrell, 1981), the

Multigroup Ethnic Identity Inventory (MEIM; Phinney, 1992), the Racial Identity

Attitude Scale-B (RIAS-B Long Form; Helms, 1990), and the Rosenberg Self-Esteem

Scale (RSE; Rosenberg, 1979) to 160 undergraduate and graduate students from a

predominantly White university who were African, African American, or West

Indian/Caribbean. The CMI is an instrument that measures the extent to which Blacks

have suspicion of White people in several areas: politics and law, interpersonal relations,

education and training, business and work. This study used only the CMI education and

training and interpersonal relations subscales. The MEIM measures ethnic identity among

groups, and is comprised of the following components: ethnic behaviors, affirmation and

belonging, and ethnic identity achievement. The largest group, African Americans, was

comprised of 110 people (81 women and 29 men); 81% were undergraduate students and

19% were graduate students. The African group was comprised of 26 students, and the

West Indian/Caribbean group consisted of 24 students.

A one-way multivariate analysis of variance was conducted with ethnic group as the independent variable and three subscales: the CMI, MEIM, and RIAS-B Long Form as the dependent variables to address Question 1. Ethnic group was comprised of African, African American, and West Indian/Caribbean students. Results of the Wilk's Lambda indicated a significant finding, $F (20, 256) = 3.97$, $p<.001$. There were differences found among the three groups on cultural mistrust, ethnic identity, and racial identity. For example, African Americans' scores on the Cultural Mistrust Inventory subscales were significantly different from both the African and West Indian/Caribbean students. African Americans scored higher on both the Education and Training ($M = 22.31$) and Interpersonal Relations ($M = 52.07$) CMI subscales than African students ($M = 16.64$ and $M = 43.75$, respectively) and West Indian/Caribbean students ($M = 12.46$ and $M = 35.67$, respectively). The higher scores on both subscales illustrated African Americans' mistrust of White people. The MEIM's Ethnic Behaviors subscale indicated that the scores of both African Americans ($M = 3.48$) and West Indian/Caribbean ($M = 3.46$) students differed from African students ($M = 3.06$). Both of these groups, African Americans and West Indian/Caribbean students have higher socialization behaviors (as measured by the Multigroup Ethnic Identity Scale) than Africans. The MEIM's Other-Group Orientation subscale scores were higher for the African ($M = 3.49$, $SD = 0.37$) and West Indian/Caribbean ($M = 3.55$, $SD = 0.45$) students in comparison with African Americans ($M = 3.17$, $SD = 0.51$) scores. Phelps et al. (2001) stated that these findings indicated that African and West Indian/Caribbean students had "…more interactions with ethnic groups other than their own" (p. 212). Scores on both the Encounter and the Immersion/Emersion subscales of the RIAS-B Long Form indicated that African

Americans had higher scores than the African and West Indian/Caribbean students. In addition, African Americans had higher scores on the Internalization status of the RIAS-B, Long Form than the African and West Indian/Caribbean students. A one-way ANOVA was conducted to address question 2. The results indicated that there were no differences on self-esteem, $F(2, 157) = 1.07$, $p = .35$.

For question 3, multiple regression analyses examined the relationship between the CMI, the MEIM, and the RIAS-B Long form subscales as the independent variables, and the RSE as the independent variable for African Americans. The results were statistically significant; 37% of the variance in self-esteem was accounted for by the CMI, MEIM, and RIAS-B, Long Form scales, $F(10, 87) = 5.18$, $p < .001$. More specifically, the Internalization subscale of the RIAS-B, Long Form ($p < .001$) and the MEIM's Other-Group Orientation scale ($p < .05$) were significant predictors of self-esteem. In addition, the Internalization subscale was positively correlated with self-esteem, and the Other-Group Orientation subscale was negatively correlated with self-esteem. Because the sample was small, a second multiple regression analysis was conducted combining African and West Indian/Caribbean students. The independent variables were the scores of the CMI, MEIM, and the RIAS-B, Long Form and the dependent variable was the RSE score. The results were not significant, $F(10, 31) = 1.10$, $p = .39$.

Phelps et al. (2001) conducted another regression analysis to address question 3 and investigate within-group variation using the RIAS-B, Long Form, Pre-Encounter, Immersion/Emersion, the Internalization status, and the Other-Group Orientation scale of the MEIM as independent variables and the RSE score as the dependent variable. For

African Americans 30% of the variance in self-esteem was accounted for $F_{(4, 101)} =$ 10.63, $p < .0001$. Findings indicated significant results as follows: Pre-Encounter ($p < .01$), Immersion/Emersion ($p < .05$), Internalization ($p < .0001$), and Other-Group Orientation ($p < .05$). Since the results were significant, they each served as a predictor of self-esteem. With the exception of the Internalization scale, the scales were negatively related to self-esteem. The authors noted that the results might be due to group experiences encountered in the U.S. by African Americans that may have influenced their worldview. In addition, African Americans' scores on cultural mistrust and other-group orientation may be due to their reluctance to trust Whites and participate in activities with White people. Similarly, Phelps et al. (2001) concluded that the high scores of African Americans on the Internalization scale might be due to persistent exposure to issues of race and racial identity. Overall, the groups had similar outcomes on self-esteem. The authors concluded that the results on self-esteem indicated that even though the group members did not have the same life and group experiences, African Americans, Africans, and West/Indian Caribbean students retained personal self-esteem. The authors felt the need for further study to determine if the findings are generalizable.

Poindexter-Cameron and Robinson (1997) examined the relationship between African American women's self-esteem and their perceptions about race and gender. Seventy-nine African American undergraduate women participated in the study. The authors hypothesized that there would be 1) a significant correlation between self-esteem and the Internalization stages of two identity scales and 2) the attitudes of the Racial Identity Attitude Scale (RIAS) would correlate with the Womanist Identity Attitude Scale (WIAS) stages. The RIAS and WIAS have the same stages: Pre-Encounter, Encounter,

Immersion, Internalization. The third hypothesis posited that the Pre-Encounter scores of the RIAS would be higher for students attending a traditionally Black university (TBU) as opposed to students at a predominantly White university (PWU). Poindexter-Cameron and Robinsons' (1997) fourth hypothesis posited that there would be a difference in self-esteem for students attending TBUs and PWUs. Forty-three attended a predominantly white university, and 36 attended a traditional black university. The researchers used the RIAS Long Form (Helms & Parham, 1996), the Womanist Identity Attitude Scale (WIAS; Ossana, Helms, & Leonard, 1992) which assesses attitudes related to stages of Helm's womanist identity development model, and Rosenberg's Self-Esteem Scale (Rosenberg, 1965) to test their hypotheses.

Poindexter-Cameron and Robinson (1997) used an intercorrelations matrix of Pearson product moment correlation coefficients to determine if there were correlations between racial identity, gender role identity, and self-esteem. Regarding the first hypothesis, they found a negative correlation between the Pre-Encounter subscale of the RIAS and self-esteem ($r = -.28$, $p<.05$). Two RIAS subscales (Encounter and Immersion) were not significantly correlated with self-esteem. As the authors hypothesized, they also found a significant positive relationship between self-esteem and the Internalization stage of the RIAS ($r = .45$, $p<.001$) and also with the Internalization stage of the WIAS ($r = .29$, $p<.01$). The other WIAS subscales (Pre-Encounter, Encounter, Immersion) were negatively correlated with self-esteem. The authors' second hypothesis was partially confirmed. The Pre-Encounter subscale of the RIAS was significantly correlated with the Pre-Encounter subscale of the WIAS ($r = .28$, $p<.05$). In addition, the Internalization subscales of the RIAS and WIAS ($r = .45$, $p<.001$) were positively correlated. The third

hypothesis was partially supported. The Pre-Encounter scores of the RIAS Internalization subscale, from students attending the TBU, were higher than the Pre-Encounter scores of students attending the PWU, $F (1, 78) = 8.825$, $p<.005$. In contrast, the scores of the RIAS Internalization subscale, from students attending the PWU, were higher than that of scores of the RIAS Internalization subscale from students attending the TBU, $F (1, 78) = 7.984$, $p<.01$. For the fourth hypothesis, the authors found that the scores on self-esteem were higher from students who attended the PWU than students attending the TBU, $t (80) = 2.92$, $p<.005$). African American women from predominantly White universities had higher self-esteem scores than the African American women from traditionally Black universities. Poindexter-Cameron and Robinson (1997) posited two possible reasons for their findings. First, they said that the socioeconomic status (SES) of the students demonstrated a significant difference. The students from PWUs had higher SES backgrounds than those students from TBUs, $t (75) = 2.62$, $p< .01$. Second, both the PWU and the TBU women (43 and 23, respectively) reported that they participated in peer discussion groups about African American womanhood. Results indicated that women attending PWUs discussed issues about womanhood (in and out of class) more than women attending HBUs, $X2 (1) = 13.42$, $p< .0005$. Additionally, the women at PWUs had various support systems available which included an African American cultural center, a women's center, and a peer mentors program. The women attending TBUs also had support systems; however, they did not report as many discussions about African American womanhood. The authors posited that at that TBU, race is dealt with from a masculine perspective. Additionally, they felt that at the TBUs gender issues may not have been stressed.

Poindexter-Cameron and Robinson (1997) found that several racial identity scales were related to levels of self esteem among African Americans. High self-esteem was positively correlated with the Internalization scale of the RIAS. The authors also found a negative correlation between self-esteem and both the Pre-Encounter subscale of the RIAS and the Pre-Encounter Self-Hatred subscale of the CRIS. According to this study, self-esteem scores were higher at the PWUs than the TBUs. The authors posited that one explanation for the findings could be attributed to the idea that in order for development to be maximized, it is necessary that there is both support for and challenge to individuals. Development can be stifled if either is not present. With this in mind, those students with high self-esteem may have adaptive types of perfectionism whereas; those students with low self-esteem may have maladaptive types of perfectionism

Utsey, Ponterotto, Reynolds, and Cancelli (2000) conducted an exploratory study to investigate various coping strategies African Americans use to combat racial discrimination (i.e., individual, institutional, and cultural) and level of self-esteem. The authors' goal was to explore the relationship between the coping strategies of African Americans and their experiences of racism, and their life satisfaction and self-esteem. Two-hundred and thirteen (137 women, 76 men) African American undergraduates participated in this study. The following measures were used: the Coping Strategy Indicator (CSI; Amirkhan, 1990) which measures coping strategies for stressful situations, Index of Race-Related Stress (IRRS; Utsey & Ponterotto, 1996) which measures stress encountered by experiences with racial discrimination, the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) which evaluates an

individual's perception about life satisfaction, Rosenberg's Self-Esteem scale (1965), and a demographic questionnaire.

Results of a multiple regression analysis indicated that the subscales of the CSI, racism, and gender accounted for 16% of the variance of the self-esteem scores. The Avoidance subscale of the CSI ($r = -.43$, $p<.01$) was the only subscale that accounted for a substantial amount of the variance in the RSE, and highly Avoidant participants scored lower on self-esteem. The multiple correlation coefficient (R) and the multiple coefficient of determination (R^2) were significant, $F (6, 212) = 6.58$, $p<.01$). The authors concluded that the coping strategies of the Avoidance subscale were found to be a significant predictor of self-esteem for students who had race-related stress encounters. From these findings, a relationship may be found between self-esteem and depression due to racism-related stress. In addition, research is needed to investigate the relationship between self-esteem and perfectionism with African Americans. Perhaps, the levels of self-esteem will differ depending on whether the African American students are adaptive, maladaptive, or non-perfectionists.

In summary, the aforementioned studies have found that self-esteem is important to African Americans attending predominantly White universities. Specifically, findings showed that having an internalized racial identity and coping strategies lead to high self-esteem and satisfaction with life. This life satisfaction and high self-esteem may help lead to academic success.

Depression and African Americans

According to the National Institute of Mental Health (NIMH; 2002), 18.8 million adult Americans suffer from a depressive illness. Depression is recognized as the

most prevalent mood disorder today. According to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, Text Revision (DSM-IV-TR; 2000) of the American Psychiatric Association, a depressive episode is diagnosed by the presence of five of nine symptoms: 1) depressed mood, 2) reduced interest in almost all activities, 3) unintended significant weight gain or loss, 4) insomnia, or sleeping too much, 5) increased or decreased motor activity, 6) fatigue or loss of energy, 7) feelings of worthlessness or guilt, 8) reduced ability to concentrate or think, and 9) recurrent thoughts of death. There are many factors associated with the development of depression including a family history of depression, psychological factors, and stressful life events such as financial problems, loss of loved ones, discrimination, and other stressful life events (Lu, 2004; NIMH, 2002).

One such stressful life event may very well be the transition to college, and the college experience as a whole. For example, students for the first time are learning to take responsibility for managing daily life activities (e.g., money, clothing, and schedule). They are at a period in their life where they may have to say good-bye to old high school friends and then make new friends in college. Given the high levels of stress that some students face during the college years in adjusting to a new environment, it would be reasonable to assume that students are at risk for some depressive episode(s) in the college experience. Research indicates that African Americans have more stressful experiences in adjusting to college than Whites because of discrimination and their generally lower socioeconomic status (Robinson, 1990; Zimmerman, et al., 2000).

Historically, the diagnosis of depression in African Americans has brought about controversy (Baker, 2001). According to the National Mental Health Association

(NMHA; 2004), the incidence of depression in African Americans has been underreported by African Americans themselves. One of the reasons for this underreporting may be suspicions that African Americans have of mental health professionals. The suspicions may be caused by their knowledge that mental health professionals tend to institutionalize African Americans at high rates. Thus, underreporting can be viewed as a defense against such over-institutionalization. Another reason for the underreporting of depression in African Americans is that cultural misunderstandings and differences between Caucasian doctors and African American patients. In the case of African American women, poor primary care relationships and lack of comprehensive medical care along with minimal coordination between multiple care providers, often leads to a diagnosis of depression being overlooked (O'Malley, Forrest, & Miranda, 2003). A third reason for the underreporting of depressive symptoms of African Americans is a greater reliance on family systems of support instead of "outside" or professional support. Fourth, approximately 63% of African Americans perceived depression to be a "personal weakness" and only 31% perceive depression to be a health problem (NMHA; 2004). Additionally, 30% of African Americans said that if they were depressed they would deal with it on their own, and 20% said that they would rely on their family and friends for support (NMHA; 2004). There is a large gap in the literature regarding depression in African American males. First, they less frequently report depression to care providers and secondly care providers may be less likely to identify depression in the African American male (NIMH, 2002). More studies need to be conducted in the future in order to better understand these symptoms among both African American male and female populations. It is also imperative that cultural sensitivity

training be implemented for all health care providers so that better trust within the doctor/patient relationships can be built.

Depression and African American college students

Generally, many college students present substantial psychological symptoms such as depression, anxiety, addiction issues, and relationship problems (Rosenthal & Schreiner, 2000). In the 1970s and 1980s, major studies of college students' mental health needs found that 50-75% of those students who did not seek mental health treatment for their symptoms continued to experience substantial emotional difficulties (Rosenthal & Schreiner, 2000). Spenciner and Schreiner (2000) reported that many college students suffer from psychological concerns based on a review of studies examining the mental health needs of students. They found that racial and ethnic minority students have higher rates of psychological symptoms including anger, anxiety, and depression. Spenciner and Schreiner (2000) hold that the symptoms are due to a racial climate in the United States which may lead to feelings of oppression which in turn lead to depression.

Peden, Rayens, Hall, and Beebe (2001) reported that depression and stress are rising within college student populations. Other researchers reported that 9.7% of college freshman suffered from persistent depression (Astin, 1993; Sax, 1997). In addition, Reed, McLeod, Randall, and Walker (2001) found that there was a high rate of depression, 58% among African American college women; 12% to 18% of them had severe symptoms. Further research has shown that the prevalence of depression is higher in women than in men (Hollon, DeRubeis, & Seligman, 1992; Preusser, Rice, & Ashby, 1994). Additionally, Woods, Lentz, and Mitchell (1994) reported that low self-esteem is a factor

in the development of depression and high self-esteem serves as a vehicle that protects women from depression.

Kelly, Kelly, Brown, and Kelly (1999) found that there are few studies that exclusively examined African Americans with depression. Understanding depression among African American college students is important because if African American college students are suffering from depression, and if they tend to avoid seeking help, there is a greater risk for them to drop out of school rather than using available counseling to assist them in coping with normal college life events. Hence, some African American students may drop out of school because they have not found ways to manage their depression. African American students who stay in school may suffer academically because they too have been unable to find ways to mange their depression.

Studies have emphasized the importance of attending to racial/ethnicity and gender differences in understanding various aspects of perfectionism in college populations (Hewitt & Flett, 1991; Nilsson, Paul, Lupini, & Tatem, 1999). Sherry, Hewitt, Flett, and Harvey (2003) posit that perfectionism is a trait "in predisposing, precipitating, and prolonging depression among university students…" (p. 373). Other researchers have found that depression correlates with certain dimensions/types of perfectionism. The relevant dimensions/types include: self-oriented and socially prescribed features; another dimension/type is maladaptive perfectionism (Hewitt, Flett, & Ediger, 1996; Rice, Ashby, & Slaney, 1998; Rice & Slaney, 2002; Sherry, Hewitt, Flett, & Harvey, 2003).

For example, Sherry et al. (2003) investigated the correlation between perfectionism, dysfunctional attitudes, and depression in psychiatric patients and college

students. The study was composed of two samples, 70 psychiatric patients (Study 1) and 280 college students (Study 2). Study 2 was comprised of 139 males and 141 females. Racal/ethnic makeup of the students was not given. Regarding the second study, the authors hypothesized that both Self-Oriented Perfectionism (SOP) and perfectionistic attitudes (PA) would predict depression through their interaction with achievement problems. Socially prescribed perfectionism (SPP) and dysfunctional attitudes (DA) through their interaction with interpersonal problems would predict depression. Sherry et al. (2003) found that dysfunctional attitudes did not (usually) predict more variance in depression over and above dimensions of perfectionism. Conversely, variance in depression did not (usually) predict dysfunctional attitudes.

Another important variable associated with depression is self-esteem. Rice, Ashby, and Slaney (1998) posit that that self-esteem mediates the relationship between perfectionism and depression. Other studies have shown that there is a correlation between depression and self-esteem in university students (Corning, 2002; Rice & Slaney, 2002; Sullivan, Tripp, & Catano, 1997). In addition, only a few studies have examined the relationship between racial identity variables and measures of depression (Munford, 1994; Neville & Lilly, 2000; Pyant, & Yanico, 1991). Neville and Lilly's (2000) study found a positive correlation between racial identity (as measured by the RIAS) and depression (as measured by the Brief Symptom Inventory) with African American students. The results of univariate analyses indicated a significant relationship between racial identity and depression, $F(3, 78) = 3.48$, $p < .05$). Thus, the racial cluster profiles (Engaged Internalization, Committed Internalization, and Dormant Racial Identity) of the RIAS evidenced a higher internalization of positive Black identity. The

racial cluster profiles above showed less depression in comparison with other cluster profiles (Undifferentiated Racial Identity and Dissonance Internalization). The latter cluster profiles express a less defined racial identity (Neville & Lilly, 2000).

In addition to the Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982), several other instruments have been used to measure depressive symptoms. The most notable instruments are the Beck Depression Inventory (BDI; Beck, 1978), the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977), and the NIMH Epidemiological Catchment Area Program (Eaton & Kessler, 1985). The CES-D measures various aspects of emotional well-being with diverse populations including African Americans. For example, Radloff's CES-D four factor structure has been used with African American and White American students (Kelly, Kelly, Brown, & Kelly, 1999), Black South African students (Pretorius, 1991), African Americans, White Americans, and Mexican Americans (Roberts & Sobhan, 1992), and White Americans with rheumatoid arthritis (Sheehan, Fifield, Reisine, & Tennen, 1995). For the purposes of this study the CES-D will be used.

Racial and Ethnic Identity

In this section, three theories of racial and ethnic identity (the Nigrescence Model, the Black Racial Identity Model, and the Multidimensional Model of Racial Identity) will be previewed then described in more depth. Finally, there is a discussion of how measures are involved with these theories. Beginning in the 1970s, psychologists have consistently identified racial identity as an important construct related to psychosocial outcomes for African Americans (Crawford & Naditch, 1970; Cross, 1971, 1991; Jackson, 1976; McCord, Howard, Frieberg, & Harwood, 1969; Onwuachi, 1967; Parham

& Helms, 1981, 1985; & Vandiver 2001). Thomas (1971) and Cross (1971) theorized that racial identity represented a personality type. Racial identity has been defined as a "collective identity based on one's perception that he or she shares a common racial heritage with a particular racial group" (Helms, 1990, p.1). The literature has given attention to ethnic identity as a developmental process (Helms, 1990). Ethnic identity may be acquired as an individual achieves a feeling of being in an ethnic group and having his/her worldview, outlook and behaviors enhanced by a feeling of membership in that group (Rotheram & Phinney, 1987). Helms (1996) proposed that identity models be seen as "ethnic" models if the inclusion of cultural traits such as expressions about religion and language are "defining principles" (p. 144). Phinney (1992) suggested that ethnic identity is a general phenomenon common to all people. Racial identity implies that a person is identified by his/her racial background. On the other hand ethnic identity implies that a person is identified by his or her ethnicity which is inclusive of cultural beliefs and customs.

<div align="center">Overview of Racial Identity Theories</div>

Racial identity models/theories have been developed to aid in understanding how individuals identify with their racial group membership (Carter & Boyd-Jackson, 1998). The most notable racial identity models are the Nigrescence Model (Cross, 1971, 1991; Cross & Vandiver, 2001), the Black Racial Identity Model (Helms, 1990, 1995), and the Multidimensional Model of Racial Identity (Sellers, Smith, Shelton, Rowley, & Chavous, 1998), because they are measurable. In between iterations of Cross's model, Helms (1990; 1995) established her view of Black racial identity. In the past decade, Sellers et

al. (1997; 1998) proposed an alternative model of racial identity. A summary of each

model is provided, including a description of the respective scale and a critique of both.

Cross's Nigrescence Models

Original nigrescence model. Nigrescence is a French term that means, "to become

black," and it was used to describe the process of an individual striving for his or her

Black consciousness (Cross, Parham, & Helms, 1998). Cross's nigrescence model

(1971), one of the earliest racial identity models, has been the hallmark model used to

chronicle other cultural identities (e.g., gender, Downing & Roush, 1985; Helms, 1990).

The 1971 model, now called the original nigrescence (NT-O; Worrell et al., 2001)

consists of five stages to define racial identity development of Black adults during the

Civil Rights Movement: Pre-Encounter, Encounter, Immersion-Emersion, Internalization,

and Internalization-Commitment. Black individuals were considered to be self-hating and

took pro-White racial identity to fit into society (Pre-Encounter) until they experienced a

transformative event or series of events (e.g., personal experience of racism; Encounter)

that resulted in questioning of their racial identity. The questioning would lead to an

immersion into Black culture, valuing everything Black, and abhorring the anything

White. If continued racial exploration was pursued, racial emotions receded (emersion)

and were replaced with a cognitive acceptance and internalization of a positive Black

racial identity. For some a positive Black identity was personal (Internalization), whereas

for others they were spurred on to be activist in empowering other Blacks

(Internalization-Commitment). Movement to internalization from Pre-Encounter was

associated with an increase in self-esteem and decrease in negative emotional

functioning. Parham (1989) added to the model, indicating that individuals could go

through the nigrescence process more than once—recycling through whenever new encounters of racial incidents occurred.

Development of the Racial Identity Attitude Scale–Black (RIAS-B) scale by Parham and Helms (1981) to measure the stages of Black identity contributed to the popularity of NT-O. The RIAS-B has been used extensively in examining racial identity in relations to other sociocultural correlates such as acculturation (Pope-Davis, Liu, Ledesma-Jones, & Nevitt, 2000), psychological defenses (Nghe & Mahalik, 2001), substance abuse (Harkley, McLellan, & Randall, 2002), and psychological well being (Pierre & Mahalik, 2005).

Critics of Cross's (1971) original nigrescence model argued that it (a) lacked a clear definition of nigrescence, (b) was defined in stages even though Cross's model posits that stages can be skipped and recycled, and (c) was inadequate in accounting for factors that may be specific to indigenous cultures, non-European cultures, or other Third World cultures (Akbar, 1989; Carter, 1991; Nobles, 1989; Parham & Helms, 1985; Smith, 1989). Consequently, Cross (1991) revised the theory to address some of the criticisms.

Revised nigrescence. In a comprehensive review of the Black racial identity literature, Cross (1991) revised the model and elaborated on the nigrescence theory. Cross (1991) proposed that self-concept is composed of two components: personal identity (PI) and reference group orientation (RGO). The revision focused on the discrepancy between the reference group orientation and personal identity. Reference group orientation (RGO) is defined as social group membership reflecting social affiliation preferences while personal identity (PI) describes a person's sense of

uniqueness, including personality traits and mental health constructs such as psychopathology, self-esteem, happiness, depression, and anxiety (Cross et al., 1998; Cross & Vandiver, 2001). In the revised nigrescence model (NT-R; Worrell et al., 2001), RGO reflects the importance of race to an individual's social identity (Cross, 1991) and is the focus of the nigrescence process and racial identities.

Four of the five original stages were retained: Pre-Encounter, Encounter, Immersion-Emersion, and Internalization. The Pre-Encounter stage had two identities: Pre-Encounter Assimilation Identity (pro-American and low race salience) and Pre-Encounter Anti-Black Identity, which had two aspects—miseducation (stereotypical view about other Blacks) and self-hatred (negative view towards one's own Blackness). The depiction of the Encounter stage was not revised and continued to describe a critical racial incident or incidents that may possibly trigger(s) identity transformation. In the Immersion-Emersion stage two changes were made. One, Black Nationalism was moved from this stage to the Internalization stage. Two, Intense Black Involvement and Anti-White were deemed as independent Immersion-Emersion identities instead of one. The Internalization and Internalization-Commitment stages were combined because only slight differences demarcated one from another—activism (Cross, 1991, p. 220). The Internalization stage consisted of three identities: Black Nationalist, Biculturalist, and Multiculturalist. Black Nationalists were defined as those who identified as having a Black RGO of positive empowerment; Biculturalists reported the salience of two cultural identities, one Black and one other (e.g., American or female); and Multiculturalists referred to those with RGO identification to more than two cultural groups (i.e., Black, female, lesbian).

In summary, NT-R model (Cross, 1991) consists of seven identities: two each in Pre-Encounter and Immersion-Emersion, and three in Internalization. Furthermore, Cross contended that RGO and PI moderate the relationship between racial identity and personality traits and mental health functioning, which is a marked departure from NT-O, where early stages such as Pre-Encounter and Immersion-Emersion are associated with lower levels of self-esteem and mental health functioning, and Internalization is associated with higher levels of socioemotional functioning. In NT-R, mental health or personality functioning is not associated with a linear progression of racial identity development. Someone with one of the Internalization identities would not necessarily have a higher level of psychological functioning than someone with a Pre-Encounter Assimilation identity. Negative mental health functioning is solely associated with those individuals who have negative view about being Black—the merger of RGO and PI.

No major criticisms have been offered on the revised nigrescence theory and model for two primary reasons. One, complexity of the revised nigrescence model (the nesting of racial attitudes within each of the stages and the significant revision of self-esteem to racial identity attitudes) is not been well understood. Two, it has not been used, as no formal measurement has been associated with it. Thus, the original nigrescence model continues to be used as the RIAS-B could be used to tap the constructs.

Expanded nigrescence model. To increase use of the revised nigrescence theory and model, Cross and his associates developed a scale to measure the revised model (Cross & Vandiver, 2001), which resulted in the Cross Racial Identity Scale (CRIS; Vandiver et al., 2000). In the process of scale development, changes were made to the revised nigrescence model, which resulted in the Expanded Nigrescence Model (NT-E;

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Cross & Vandiver, 2001). NT-E retains the same four stages of NT-R, but identities in three of the stages were further fleshed out, resulting in the depiction of eight racial identities rather than the seven in NT-R. Specifically the Pre-Encounter stage now consists of three identities (Pre-Encounter Assimilation, Pre-Encounter Miseducation, & Pre-Encounter Self-Hatred) instead of two (Assimilation & Anti-Black); Immersion-Emersion continues to have two identities (Intense Black Involvement & Anti-White); and Internalization continues to have three racial identities (Black Nationalist, Multiculturalist Inclusive, & Biculturalist). The Encounter stage continues to be present in NT-E when the developmental process is in force, but doesn't describe a specific identity, as it is a transitory process that describes either the recycling process or movement forward to one of the Immersion-Emersion identities or back to one of the Pre-Encounter identities (Cross & Vandiver, 2001). Otherwise, the model is not used solely to describe a development process, but to underscore exemplars of Black racial identity attitudes that African American adults may typically have.

CRIS. The CRIS (Vandiver et al., 2000) measures six racial identity attitudes of NT-E (Cross & Vandiver, 2001). Two of the eight attitudes in NT-E are not measured in the CRIS. The Immersion-Emersion Intense Black Involvement identity is not included in the current CRIS because the factor structure of the CRIS does not support it (Vandiver et al., 2002). Measuring a Biculturalist attitude is not considered feasible, as there are only slight differences from the Multiculturalist attitude (Cross & Vandiver, 2001).

In Pre-Encounter three RGO attitudes are measured: Assimilation (pro-American), Miseducation (negative stereotypical view of other Blacks), and Self-Hatred (an internalized negative view of Blackness). The Immersion-Emersion Anti-White subscale

characterizes African Americans' hatred of Whites. The Internalization scale has three

subscales: Afrocentric, Multiculturalist, and Biculturalist. The Afrocentric subscale

characterizes Black empowerment through an Afrocentric perspective in community

building. The Multiculturalist Inclusive subscale measures Black self-acceptance and

Black acceptance of other cultural groups. Cross and Vandiver (2001) concluded that

NT-E model and the CRIS need additional research to investigate theoretical tenets and

psychometric properties of the scale, respectively, and clinical utility of both. Both have

received empirical support (Cokley, 2002; Helm, 2002; Vandiver et al., 2002; Worrell et

al., 2004; Worrell et al., 2006).

Criticisms of model and scale. Alexander and Suzuki (2001) reviewed the Cross

Racial Identity Scale, complimenting the CRIS for its orthogonal subscales, and the

strong reliability and validity of the subscale scores. However, Alexander and Suzuki

(2001) were concerned the Encounter and Internalization-Commitment stages were not

measured, limiting the full measurement of NT-E. On the other hand, and of primary

importance, they noted that the psychometric strengths of the measure would encourage

researchers to use the measure with confidence (Alexander & Suzuki, 2001).

Helm's Black Racial Identity Model

Helms (1990) used the original nigrescence model as a template for her Black

racial identity model, also merging the Internalization/Commitment stage with the

Internalization one. Each stage—Pre-Encounter, Encounter, Immersion-Emersion and

Internalization—contains three inter-related elements: personal identity, ascribed identity,

and reference group orientation (Helms, 1990, p. 5). Personal Identity describes an

individual's self-views and looks at issues such as self-esteem and anxiety. Ascribed

identity looks at the preference an individual has for inclusion in a specific racial group and choices he or she makes to relate to a particular racial group. Reference group orientation measures how the inclusion in a racial group affects or determines or guides feelings, thoughts and behaviors. Helms and Cook (1999) contended that surmounting the internalized negative view of self, based on widely held societal perceptions, is of paramount importance in racial identity development.

In 1995, Helms revised the model, using the term ego status to describe identities to highlight that each stage could be measured as an attitude and that Black identity was more than a developmental model. Ego status in Helm's term represents the cognitive-affective information processing people use to deal with racial information. All statuses according to Helms can be perceived as "hypothetical constructs" (p. 155). Helms uses the term schema to describe what is evident from looking at statuses. For example, "I feel uncomfortable around Black people" (Helms, 1996, p. 156). In other words, schema describes how an individual's statuses are evidenced in reality (Helms & Cook, 1999, p. 85). Existing measures of racial identity can assess schema but not statuses/stages.

RIAS-B. As noted earlier, Helms (1990; 1995) used the RIAS-B (Parham & Helms, 1981) to measure the original nigrescence model (Cross, 1971). Composed of 50 items, the RIAS-B taps all four stages noted above. In addition, Helms (1990) suggested that identity can both encompass aspects of White culture and embody facets of Black culture, signifying the importance of the RIAS-B as a measure of racial identity development.

Criticisms of RIAS-B. In spite of the advantages of using the RIAS-B, there are questions regarding the utility of the scale. Strong criticisms have been made about the

reliability and structural validity of the RIAS-B scores (Fischer, Tokar & Serna, 1998; Lemon & Waehler, 1996; Yanico, Swanson, & Tokar, 1994). Furthermore, it has not been established whether the statuses of the NT-O model describe a stable linear process. Hence, Helms (1990) posited that longitudinal studies are needed to investigate racial identity development at different times throughout an individual's life to discern whether racial identity is a stable linear process.

Multidimensional Model of Racial Identity

The Multidimensional Model of Racial Identity (MMRI; Sellers et al., 1997) represents a synthesis of two perspectives on racial identity, the mainstream perspective and the underground perspective. Sellers et al. (1998) contend that the first perspective focuses on common properties pertaining to racial and ethnic identities. The second concentrates on the meaning of being African American based on historical and cultural events. MMRI is based on four assumptions: (a) identities are shaped by conditions or situations the individual faces as well as stable individual traits, (b) people have multiple identities that are "hierarchically ordered," and (c) a persons' view of his/her racial identity is the most valid descriptor of his/her identity, and (d)) the MMRI concentrates on the importance of a person's racial identity rather than a person's racial identity development at a particular time (Sellers et al., 1998, pp. 23-24).

Furthermore, Sellers and his colleagues (1997, 1998) describe four dimensions that are necessary to explain the significance and meaning of race in the self-concepts of African Americans: racial salience, racial centrality, racial regard and racial ideology. Racial salience refers to the extent to which a person's race is important to that person's self-concept at a particular time or in a particular situation. Racial centrality is the degree

to which a person defines herself or himself with regard to race. Racial regard has a private and a public component. Private regard refers to or describes individuals' good or bad perceptions about African Americans in general and how they specifically feel about being African American themselves. Public regard refers to the degree that people "feel that others view African Americans positively or negatively" (Sellers et al., 1998, p. 26).

The fourth dimension of the MMRI, racial ideology, is composed of four philosophies of racial ideology: nationalist philosophy, oppressed minority philosophy, assimilationist philosophy, and a humanist philosophy. A nationalist ideology emphasizes the importance and uniqueness of being Black. The oppressed minority ideology focuses on the commonalities of oppression of African Americans and that of other minority groups. The assimilationist philosophy stresses the shared experiences of African Americans and other Americans. Finally, the humanist philosophy accentuates the shared nature of the human experience by all people (Sellers et al., 1997; 1998).

Sellers et al.'s (1997; 1998) posit that MMRI represents the strengths of both the mainstream and underground approaches to racial identity. MMRI is considered to differ from the nigrescence developmental models (Cross, 1971; 1991; Helms, 1990) in complexity and provides an avenue for "understanding both the significance of race in the self-concept of African Americans and the qualitative meanings they attribute to being members of that racial category" (p. 19).

MIBI. Sellers et al. (1997; 1998) developed the MIBI to measure the multidimensionality of the MMRI. Hence, the MIBI "operationalizes multiple dimensions of racial identity so that centrality of racial identity to one's self-concept, evaluation of oneself and other African Americans, and racial ideology are assessed

separately" (Fisher & Moradi, 2001, p. 344). Paralleling the MMRI model, the MIBI is comprised of three dimensions, centrality, ideology, and regard, (Sellers et al., 1997; 1998), which are measured by a Centrality scale, four Ideology subscales, and two Regard Scales, respectively. The salience dimension of the MMRI was not measured in the MIBI because it is considered to easily skew by particularities in a given situation (Sellers et al., 1997, p. 807). The original MIBI contained 71 items with subscales corresponding to the dimensions of the MMRI (Sellers et al., 1997). Separate exploratory factor analyses for each of the dimensions were conducting, as a factor solution was not possible for the entire scale. Based on the results of the study, Sellers et al. (1997) reduced the MIBI to 51 items, 36 items on the Ideology scale, 8 items on the Centrality scale, and 7 items on the Regard scale. In general, the MIBI has received some psychometric support for its scores, but reliability estimates of the Regard subscales have been variable and sometimes low (below .70).

Criticisms of the MMRI and MIBI. Sellers et al.'s (1998) MMRI serves as a combination of various group identity theories while taking into account how past experiences of African Americans have formed a unique racial group identity. On one hand the model/theory is in accordance with the underground approach because it includes analysis of attitudes and beliefs of African Americans about being part of the group. On the other hand, this can be a limitation, because the MMRI is designed to look at the meaning of the word "Black" and the feeling that African Americans have about being African American. The MMRI does not look at African American self-concept, except within the context of the group and not within the context of the majority society (Sellers et al., 1997; 1998). Although MMRI may offer a limited analysis of African

American self-concept since it is examined in the context of the Black group, model may have wider value in that it includes elements that can be relevant to looking at identity in non black groups. Thus, the theory is limited in one respect and more universal in another; it is not always clear how the various facets fit together.

In a review of the MIBI, Fischer and Moradi (2003) noted that the reliability of the Public Regard scale scores of the MIBI as well as the factorial structure of the MIBI is questionable. They recommended that additional research is needed on the MIBI, suggesting continued structural analyses using both exploratory and confirmatory factor analyses, where standard approaches "for selecting and rotating factor solutions" (p. 344). Two validity studies (Cokley & Helm, 2001; Helm, 2002) on the MIBI have provided support for Fischer and Moradi's conclusions.

Summary and Conclusion

The three racial models reviewed offer viable alternatives in viewing Black racial identity. Helms (1990; 1995) offers the broadest stage wise model and the NT-E model (Cross & Vandiver, 2001) has evolved to offer a more complex and multidimensional view of racial identity. Its viability will be based on future research using the CRIS. The MMRI (Sellers et al., 1997; 1998) also offers a competing multidimensional model of racial identity and cumulative research provides support for its model. However, psychometric problems with the RIAS-B and MMIBI scales suggest possible revisions may be warranted to strengthen the viability of both measures. In contrast, the promising psychometric aspects of the CRIS as well as its clear theoretical underpinning resulted in its selection for the current study. Cross and Vandiver (2001) proposed ten recommendations, two of which pertained to the need for demographic research and

clinical utility, which are relevant in the current study. Specifically, the authors recommend that future studies examine the effect of demographic characteristics such as gender on racial and cultural identities. In addition, the authors asked, "Are Blacks who have a racial identity profile dominated by Mis-Education or Self-Hatred more prone to depression, low self-esteem, and other mental health problems than individuals with other racial identity clusters" (Cross & Vandiver, 2001; p. 391).

There is a dearth of studies examining perfectionism among African American college students. There are some studies examining the relationship between academic achievement, self-esteem, racial identity, and depression among African Americans. No empirical study to date has examined the extent to which perfectionism among African American students is related to academic achievement, self-esteem, depression, and racial identity among African American students. The present study addressed these issues through the following hypotheses.

Hypotheses

Hypothesis 1: There will be statistically significant differences between African-American university student participants, grouped according to their APS-R subscale scores, on academic achievement as measured by cumulative grade point average (GPA) (i. e., adaptive perfectionists will have higher GPAs than maladaptive perfectionists and non-perfectionists).

Hypothesis 2: There will be statistically significant differences between African-American university student participants, grouped according to their APS-R subscale scores, on academic achievement as measured by the Noncognitive Questionnaire (i. e.,

adaptive perfectionists will have higher positive self-concept scores and realistic self-appraisal scores than maladaptive perfectionists and non-perfectionists.

Hypothesis 3: There will be statistically significant differences between African-American university student participants, grouped according to their APS-R subscale scores, on self-esteem as measured by the Rosenberg Self-Esteem Inventory (i. e., adaptive perfectionists will have higher self esteem scores than maladaptive perfectionists and non-perfectionists.

Hypothesis 4: There will be statistically significant differences between African-American university student participants, grouped according to their APS-R subscale scores, on depression as measured by the Center for Epidemiological Studies-Depression Scale (i. e., maladaptive perfectionists will have higher depression scores than adaptive perfectionists and non-perfectionists.

Hypothesis 5: There will be statistically significant differences between African-American university student participants, grouped according to their APS-R subscale scores, on racial identity as measured by the Cross Racial Identity Scales. Because this hypothesis is exploratory, no specific predictions are made. However, the general expectation is that the adaptive perfectionists will have more open and positive racial identity attitudes than maladaptive perfectionists with the non-perfectionists' scale scores between the former two groups.

CHAPTER THREE

Method

Participants

The participants for this study were African American students attending The Pennsylvania State University (PSU) and The University of Memphis. Two hundred and fifty three undergraduate and graduate students participated in this study. One hundred and eleven participants (62 women, 49 men) attended the Pennsylvania State University; ages ranged from 18 to 39 with a mean of 21.63 (SD = 3.54). One hundred and forty-two (61 women, 81 men) participants attended the University of Memphis and ages ranged from 18 to 43 with a mean of 22.93 (SD = 4.89). The participants are listed as follows: 225 were African American/Black, 10 were Biracial (African American and White or African American and Asian), and 6 were African American/African.

Procedure

Students at both universities were solicited through predominantly African American campus student organizations (e.g., sororities, fraternities, Black Graduate Student Associations and undergraduate student associations), advisors, classrooms, student university centers, individual contact, email, and mailing lists provided by the Minority Admissions and the Community Affairs (CAPS) offices. Students were also recruited through the Bunton-Waller fellowship program, the Multicultural Resource Center, the Student Minority Advisory and Recruitment Team, and the Black Caucus at PSU.

Data for the study were collected through group administrations or collected individually from participants who were unable to attend the group administration. Each

participant received an informed consent form, a questionnaire, and a scantron sheet to record his/her answers. The students were informed that their participation was voluntary and that their responses would remain confidential.

The participants were told that the study would examine the effects of academic achievement, self-esteem, depression, people's attitudes about race, and perfectionism with African American students. As an incentive, the students earned $5.00 for completing the survey. The money for the study was provided by a scholarship from the office of Educational Equity at The Pennsylvania State University. The survey took approximately 20-45 minutes for the students to complete. The participants were encouraged to complete each section of the questionnaire and answer the questions as thoroughly and genuinely as possible.

Measures

Each participant received a packet consisting of a letter explaining the study (Appendix A), an informed consent form (Appendix B), a demographic questionnaire (Appendix C), a research questionnaires (Appendix D), and a scantron sheet. Each student was informed by the researcher (African American female) or the survey administrator (African American male), both from PSU, to return the questionnaires promptly after completion. The survey administrators returned the research questionnaires to the researcher. Several measures were included in the research questionnaire: a demographic questionnaire, The Almost Perfect Scale-Revised, the Noncognitive Questionnaire, Rosenberg's Self-Esteem Scale (RSE), the Center for Epidemiological Studies-Depression Scale (CES-D), and the Cross Racial Identity Scale (CRIS).

Demographic Questionnaire. The participants in this study were given a questionnaire requesting background information, such as race/ethnicity, class standing, culmative GPA (4.0 scale, indicator of academic achievement), satisfaction with GPA, parent(s)/guardian's highest educational level, and socioeconomic status (family income). To assess students' satisfaction with their GPA, participants were asked to use a 5-point Likert scale ranging from 1 = Very Dissatisfied to 5 = Very Satisfied.

The Almost Perfect Scale-Revised (APS-R). The Almost Perfect Scale-Revised (APS-R) is a paper and pencil instrument developed by Slaney, Mobley, Trippi, Ashby, and Johnson (1996) to measure the dimensions of perfectionism. The APS-R is a 23-item scale with a 7-point Likert–type scale, ranging from 1 = strongly disagree to 7 = strongly agree. There are three subscales of the APS-R, High Standards (7 items), Order (4 items), and Discrepancy (12 items). According to Rice and Slaney (2002), High Standards measures the standards and expectation one has for his/her performance and level of achievement. Order signifies a person's desire for neatness and "orderliness." "Discrepancy measures the degree to which the respondents perceive themselves as failing to meet their personal standards for performing" (Rice & Slaney, 2002, p. 38).

Slaney, Rice, Mobley, Trippi, and Ashby (2001) conducted exploratory and confirmatory factor analyses which offered support for a three factor perfectionism measure as noted above. According to the authors, the structure coefficients for the APS-R ranged from .49 to .85. The final confirmatory factor analysis (CFA) statistics indicated that the item structure coefficients of the APS-R ranged from .49 to .83. The Cronbach alpha coefficients for the scores were as follows: High Standards .85, Order .86, and

Discrepancy .92. The authors stated that "overall, the APS-R does seem to be promising in terms of providing an adequate measure of perfectionism" (Slaney et al., 2001, p.143).

Slaney et al. (2001) reported that the factor intercorrelations for the APS-R were modest with the exception of the correlation between High Standards and Order: High Standards and Order (.41), High Standards and Discrepancy (-.07), Order and Discrepancy (-.05). For the correlations between the APS-R and the MPS-HF scales (Hewitt & Flett (1991) the highest correlations were between Discrepancy and Socially Prescribed Perfectionism (.45) and High Standards and Self-Oriented Perfectionism (.55).

As expected, the APS-R subscales correlated with depression, with High Standards (-.10) and Order (.03) being unrelated to depression and Discrepancy (.49) moderately related to depression as measured by the Beck Depression Inventory (BDI, Beck, 1978). On the other hand, the High Standards and Order subscales were "modestly and positively" related to self-esteem, .19 and .14, respectively, and Discrepancy had an inverse relationship with self-esteem (-.44; Slaney et al., 2001). High Standards was "positively" related to GPA, (.34), whereas Discrepancy was inversely related to GPA (.23). Based on these analyses, Slaney et al. (2001) found that the APS-R has some support for discriminant and concurrent validity. Mobley (1998) also found support for the three factor structure of scores from the APS-R with African Americans. Cronbach alphas for the APS-R scores were High Standards (.75), Order (.81), and Discrepancy (.88).

Rice and Slaney (2002) conducted two studies examining the APS-R and utilizing cluster analyses to identify perfectionists and non-perfectionists. They found support for a three-cluster solution composed of adaptive perfectionists, maladaptive perfectionists,

and non-perfectionists. The Cronbach alphas for the APS-R for the first study were as follows: High Standards .83, Order .85, and Discrepancy .91. The authors stated that the correlations between the scores on the subscales ranged from -.02 (Discrepancy and High Standards) to .41 (High Standards and Order). The Cronbach alphas for the APS-R in the second study were as follows: High Standards .85, Order .86, and Discrepancy .92. Correlations between the scores on the subscales ranged from .02 (Discrepancy and High Standards) to .36 (High Standards and Order). The subscales, as expected, related to other perfectionism measures and psychological adjustment measures (Rice & Slaney, 2002). Data from other studies also provide support for both the concurrent and discriminant validity of the APS-R subscale scores (Rice, Ashby, & Slaney, 1998; Slaney et al., 2001; Suddarth & Slaney, 2001). The data thus derived provide a "promising nomological network of relationships" (Rice & Slaney, 2002, p. 4).

The Noncognitive Questionnaire (NCQ). The Noncognitive Questionnaire (NCQ; Sedlacek, 2004; Tracey & Sedlacek, 1984, 1987) assesses eight factors which the authors hypothesize are related to the academic success of minority college students. According to Sedlacek (2004), the noncognitive dimensions are (1) global positive self-concept (related to anticipation of performance in future years), (2) realistic self-appraisal, pertaining to academics, (3) understands and deals with racism, (4) prefers long-range goals to short-term or immediate needs, (5) availability of strong support person, (6) successful leadership experience, in either organized or informal groups, (7) community involvement including participation in community and/or church affairs in their pre-college experience, and (8) knowledge acquired in a field (academic familiarity).

The NCQ is comprised of 29 items. The first four items assess demographic items (social security number, gender, age, and racial ethnicity). Two items request the parents' occupations. Eighteen Likert-type items examine students' expectations about college and self-assessment, two categorical items measure educational ambitions, and three open-ended items gather data on goals and accomplishments (Tracey & Sedlacek, 1984). In previous studies, reliability estimates were in the .80s for the NCQ scores (Tracey & Sedlacek, 1984; Sedlacek, 1996). Test-retest reliabilities of all the item scores were adequate except for the open-ended items. Two-week test-retest correlations were conducted on scores for the 18-items which ranged from .70 to .94 with a median of .85 (Tracey & Sedlacek, 1984). The interrater reliability on the three open-ended item scores ranged from .83 to 1.00. Ting and Robinson (1998) stated that the NCQ has strong construct and predictive validity and "promising" content validity. Construct validity for the scores of the eight dimensions on the NCQ for African Americans and White Americans has been supported in several studies (Ting & Sedlacek, 2000; Tracey & Sedlacek, 1984; Woods & Sedlacek, 1988).

Two variables, Positive Self-concept and Realistic Self- appraisal, measure educational ambitions, have predictive validity for African Americans' academic achievement (Sedlacek, 1999; Tracey & Sedlacek, 1984). Positive Self-concept is comprised of items 7, 9, 10, 20, 23, and 28 on the NCQ, and Realistic Self-appraisal is comprised of items 9, 12, and 21 on the NCQ. For this study both Positive Self-Concept and Realistic Self-appraisal are examined as measures for academic achievement.

The Rosenberg Self-Esteem Scale (RSE).The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) is a 10-item scale designed to measure an individual's self-esteem and

self-acceptance. Participants responded to items on a 4-point Likert scale ranging from 1 = strongly disagree to 4 = strongly agree. The negatively worded items of the RSE are reverse scored and the responses are added to obtain scores ranging from 10 to 40. Positive self-esteem is evidenced by higher total scores on the RSE and lower self-esteem is evidenced by lower total scores on the RSE.

Goldsmith (1986) and Crandall (1973) have provided support that the scores of the RSE have adequate reliability. Internal consistency reliability estimates have ranged from .86 to .93 (Goldsmith, 1986). The test-retest reliability for a two-week period was .85 (Crandall, 1973). In a study with 213 participants, the RSE scores had a coefficient alpha of .83 (Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Rice and Slaney (2002) reported that the Cronbach coefficient alphas were .89 for the RSE scores in their first study and .87 for the RSE score in their second study. Goldsmith (1986) and Rosenberg (1979) both reported that the scores on the RSE showed a correlation with other measures as the authors had anticipated. In addition, two other studies examining perfectionism and its relationship with Rosenberg's Self-Esteem Scale have found expected directional relationships (Ashby & Rice 2002; Rice & Dellwo, 2001).

The Center for Epidemiological Studies–Depression Scale (CES–D). The Center for Epidemiological Studies–Depression Scale (CES –D; Radloff, 1977) measures various aspects of emotional well-being. The CES-D is 20-item scale reporting the frequency of depressive symptoms experienced during the previous week. Respondents report their symptoms using a scale ranging from 0 = rarely or none of the time through 3 = most or all of the time.

The CES-D has four subscales: Depressed Affect subscale (5 items) measures important dsyphoric incidents including feeling depressed and having crying spells; the Positive Affect subscale (4 items) measures happy feelings; he Somatic and Vegetative Activity subscale (7 items) measures problematic appetite, sleep, and concentration patterns; and The Interpersonal Symptoms subscale (4 items) measures the respondents' views of others as being unfriendly. The CES-D scores have shown moderate test-retest reliability, good internal consistency, and concurrent and construct validity (Radloff, 1977).

Nyamathi, Sands, Pattatucci-Aragon, Berg, Leake, Hahn, et al. (2004) reported that the Cronbach alpha coefficient for the CES-D scores in their study was .85. The reliabilities for the total CES-D score have ranged from .89 to .90 (Breslau, 1985; Radloff, 1977). In Rice and Slaney's (2002) study, the following Cronbach coefficient alphas were reported: Depressed Affect scores = .86, Positive Affect scores = .81, Somatic and Vegetative Activity scores = .70, and Interpersonal Symptoms scores = .54. The correlations between the four subscales scores ranged from .46 (Positive Affect and Somatic and Vegetative Activity) to .64 (Depressed Affect and Somatic and Vegetative Activity). Since the variable, Interpersonal Symptoms scores = .54 had a low coefficient alpha, Rice and Slaney (2002) dropped it from the analysis. Radloff's CES-D four-factor structure has been used with African Americans (Kelly, Kelly, Brown, & Kelly, 1999; Roberts, 1980). For this study the total score of the CES-D was used.

The Cross Racial Identity Scale (CRIS).The Cross Racial Identity Scale (CRIS; Vandiver et al., 2000) is a measure based on the Expanded Nigrescence theory (Cross, 1991) which investigates the various Black identity ideologies of African Americans. The

CRIS is a 40-item measure, but only thirty of the items are scorable and associated with specific subscales, with 10 items as fillers. The CRIS consists of 6 subscales with each subscale consisting of five items: Pre-Encounter Assimilation (PA), Pre-Encounter Miseducation (PM), Pre-Encounter Self-Hatred (PSH), Immersion-Emersion Anti-White (IEAW), Internalization Afrocentric (IA), and Internalization Multiculturalist Inclusive (IMCI). The Pre-Encounter Assimilation subscale measures the importance of Blacks recognizing themselves more as Americans than as Black (Cross & Vandiver, 2001; Vandiver et al., 2002). The Pre-Encounter Miseducation subscale describes one who subscribes to stereotypical views of Black people. On the other hand, the Pre-Encounter Self-Hatred subscale represents one who has a negative view/hatred of being Black. The Immersion/Emersion Anti-White subscale characterizes one who hates White people. The Internalization Afrocentric subscale depicts a person who has an "Africentric" worldview (Cross & Vandiver, 2001, p. 376), whereas, the Internalization Multiculturalist Inclusive subscale describes a person whose identity is defined by the relationship between and balancing of cultural identities. The CRIS measure is rated on a 7-point scale, which ranges from 1, strongly disagree, to 7, strongly agree. The items are summed within the subscales; there is no total score for the CRIS.

According to Cross and Vandiver (2001), the reliability estimates for the subscale scores of the CRIS ranged from .59 to .91 (p. 385). From Phases 2 through 6, the reliability estimates for the CRIS were as follows: Pre-Encounter Assimilation ranged from .68 to .86, Pre-Encounter Miseducation ranged from .73 to .90, Pre-Encounter Self-Hatred ranged from .71 to .89, Immersion-Emersion Anti-White ranged from .83 to .91, Internalization Afrocentric ranged from .65 to .83, and Internalization Multiculturalist

Inclusive ranged from .59 to .86. Cross and Vandiver (2001) noted that the estimates improved across the phases. In addition, the authors stated that all of the subscale scores reliability estimates were above .80 during Phase 6 with the exception of Pre-Encounter Miseducation, which was 78.

The subscale intercorrelations for the CRIS ranged from -.51 to .63. Cross and Vandiver (2001) noted that from Phase 2 through Phase 6 many of the values dropped below .30. The Immersion-Emersion Intense Black Involvement subscale was eliminated from the CRIS in Phase 4 (Vandiver, Fhagen-Smith, Cokley, Cross, & Worrell, 2001). Cross and Vandiver (2001) noted that after an exploratory factor analysis (EFA) was performed, the Immersion-Emersion Intense Black Involvement subscale could not be measured, without further psychometric development. The reason was that the EFA was inclusive of the Immersion-Emersion Intense Black Involvement items (IEIBI) and both the IEIBI and Internalization Afrocentric "loaded on the same factor" (Cross & Vandiver, 2001, p. 386). Thus a six-factor solution resulted. Cross and Vandiver (2001) commented that the intercorrelations for the Immersion-Emersion Anti-White, Internalization Afrocentric, and Internalization Multiculturalist Inclusive subscales were between .41 and .37, respectively at the conclusion of Phase 6.

According to Vandiver et al. (2002), an exploratory factor analysis provided support for the six-factor structure. In addition, a confirmatory factor analysis supported the utility of the six-factor model and a two-factor higher order model. The initial CRIS findings of convergent validity supported five of the six subscales: Assimilation, Self-Hatred, Anti-White, Afrocentric, and Multiculturalist (excluding Pre-Encounter Mis-Education). In Vandiver et al. (2002) each of the aforementioned subscales had

meaningful relationships with comparable subscales of the Multidimensional Inventory of Black Identity by Sellers et al. (1998). In addition, the IMCI subscale correlated with the Humanist and Oppressed Minority subscales of the MIBI. The PSH construct was also supported, which indicated that people whose scores on the CRIS indicated that they hated being Black also had a negative view about being Black on the Private Regard subscale of the MIBI. In addition, discriminant validity was supported by minimal intercorrelations between the subscales of the CRIS and measures of the Big Five personality traits (BFI; John et al., 1991), the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), and the Balanced Inventory for Desirable Responding (BIDR; Paulhus, 1991). One exception, as was predicted, pertained to the PSH identity which had a strong relationship with Neuroticism. As predicted, PSH was the only CRIS scale that was negatively correlated with global self-esteem ($r = -34$). Vandiver et al., (2002) suggested that this gave "credence to Cross's contention that Blacks in Pre-Encounter do not hate themselves unless they are also unhappy with their PI" (p.83).

CHAPTER FOUR

Analyses and Results

Preliminary Analyses

The data and data coding were screened for accuracy prior to analyses. As recommended by Tabachnick and Fidell (2001), the following were reviewed: outliers, missing values, and whether or not the data fit with the assumptions of normalcy. Based on descriptive analyses, any responses falling outside the expected minimum and maximum range were reviewed and clarified. All questionable responses were resolved by reviewing the raw data. The researcher noticed that participants' eraser marks and lightly filled in items on the scantron sheets were being scored incorrectly. Therefore, erroneous eraser marks were cleanly erased and lightly filled in responses were darkened and rescored. After these steps were taken no missing or incomplete data were found. The sample consisted of 253 participants, 130 males and 123 females. The majority of the participants (N = 225) described themselves as African American, 10 as Biracial (African American and White or African American and Asian), 6 as African (African and African American), 9 as Multiracial (African American and more than one other race or ethnicity), and 3 as "other." One-hundred and eleven students attended The Pennsylvania State University and 142 students attended The University of Memphis. The participants were both undergraduate (n = 219) and graduate students (n = 34) whose ages ranged from 18 to 43. The mean age of participants at The University of Memphis (M = 22.93, SD = 4.89) differed significantly from the mean age of participants at The Pennsylvania State University (M = 21.63, SD = 3.54) at $F = (1, 252) = 5.56$, $p < .05$. The means and standard deviations for the three subscales of the APS-R and other measures in the

hypotheses can be seen in Table 1. Appendix E contains the overall means and standard deviations for all of the study variables.

Initial inspection of the intercorrelations and internal consistencies for the study variables indicated that the internal consistencies for the RSA and PSC scores of the NCQ were unacceptable. Additional investigation of the computations of the scale scores and internal consistencies indicated that the calculations were correct. To further investigate the internal consistencies, the data were split by universities. The internal consistencies for the RSA scores were .04 and .35 for Penn State University and University of Memphis, respectively. Results of the RSA internal consistency analysis suggested that if item 9 was deleted, the alpha would raise to .25 and .51 for Penn State University and University of Memphis, respectively. The internal consistencies for the PSC scores were .07 and .28 for Penn State University and University of Memphis, respectively. Results of the PSC internal consistency analysis suggested that if item 28 was deleted, the alpha would be raised to .26 and .47, respectively. Even with the deletion of items, the internal consistencies were not in an acceptable range. Inspection of past data sets and contact with the author of the scale did not resolve the issue and these scales were eliminated from further consideration.

It is worth noting that NCQ items #7 - #10 (items 32-35 in the survey) have their unique coding system, which is different from normal reverse coding. After carefully re-examining item #7 (34 in the survey), there was some suspicion on whether the recoding was correct. The alphas were rerun after revising the recoding of #7. Although the alphas changed, results were not drastically different. Alphas for RSA and PSC scores were in the .20 and .30 range. In addition, looking at the NCQ subscale scores, only RACE and

ASS did not include any of the items that had unique coding systems. And those two

subscales were the only ones that had reasonable levels of alphas (.60 & .80).

Table 1

Means and Standard Deviations for the APS-R and Dependent Variables

Measures	M	SD
High Standards	6.10	0.83
Order	5.44	1.08
Discrepancy	3.56	1.30
GPA	2.95	0.54
NCQ-PSC	16.90	2.74
NCQ-RSA	8.30	1.94
RSE Total score	33.49	5.89
CES-D Total score	15.72	11.39
CRIS-PA	15.79	7.69
CRIS-PM	18.38	6.45
CRIS-PSH	10.68	5.80
CRIS-IEAW	10.26	6.32
CRIS-IA	17.05	4.85
CRIS-IMCI	25.54	6.11

Note. GPA = Grade Point Average; NCQ-PSC = Non-Cognitive Questionnaire - Positive Self-Concept; NCQ-RSA = Non-Cognitive Questionnaire - Realistic Self-Appraisal; RSE = Rosenberg Self-Esteem Scale; CES-D = Center for Epidemiological Studies – Depression; CRIS – PA = Cross Racial Identity Scale - Pre-Encounter Assimilation; CRIS – PM = Cross Racial Identity Scale - Pre-Encounter Miseducation; CRIS- PSH = Cross Racial Identity Scale - Pre-Encounter Self-Hatred; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive; CRIS – IEAW = Cross Racial Identity Scale -Immersion-Emersion Anti-White, CRIS – IA = Cross Racial Identity

Scale - Internalization Afrocentric; CRIS - IMCI = Cross Racial Identity Scale -
Internalization Multiculturalist Inclusive.

Table 2 presents the intercorrelations and internal consistencies between the

dependent variables. See Appendix F for a table of correlations including all of the study

variables.

Table 2

Correlations Between Variables In Hypotheses

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. GPA	--	.14	.04	.20*	-.19	-.16	-.33**	-.13	.25**	-.17	-.11
2. NCQ-RSA	.06	**.23**	.43**	.06	-.10	.02	-.11	.02	.16	.02	.16
3. NCQ-PSC	.06	.57**	**.22**	.06	-.12	-.05	-.03	.01	-.01	.01	.15
4. RSE	-.04	.17	.17	**.86**	-.51*	.03	-.04	-.32**	.17	-.07	.02
5. CES-D	-.13	.00	-.06	-.42**	**.90**	-.05	.11	.40**	-.09	.28**	.09
6. CRIS-PA	-.08	.01	-.05	-.05	.08	**.85**	.51**	.19*	.03	-.07	-.20*
7. CRIS-PM	-.15	.10	-.10	-.08	.01	.08	**.76**	.18*	-.06	.12	.07
8. CRIS-PSH	.15	-.16	-.21*	-.38**	.25**	.10	.20*	**.79**	-.12	.17	.05
9. CRIS-IMC	.09	-.04	.02	.10	-.22*	.04	.22*	-.12	**.77**	-.34**	.06
10. CRIS-IEAW	-.07	-.06	-.24**	-.25**	.28**	-.07	.18*	.51**	-.18*	**.90**	.22*
11. CRIS-IA	-.07	.04	-.20*	-.12	.23	-.15	.16	.13	-.01	.30**	**.82**

Note. *p < .05, **p < .01, two-tailed. Correlations for male participants are displayed on
the lower diagonal, while correlations for female participants are displayed on the upper
diagonal. Cronbach's coefficient alphas are displayed in bold. GPA = Grade Point
Average; NCQ-PSC = Non-Cognitive Questionnaire - Positive Self-Concept; NCQ-RSA
= Non-Cognitive Questionnaire - Realistic Self-Appraisal; RSE = Rosenberg Self-Esteem
Scale; CES-D = Center for Epidemiological Studies –Depression; CRIS – PA = Cross

Racial Identity Scale - Pre-Encounter Assimilation; CRIS – PM = Cross Racial Identity Scale - Pre-Encounter Miseducation; CRIS- PSH = Cross Racial Identity Scale - Pre-Encounter Self-Hatred; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive; CRIS – IEAW = Cross Racial Identity Scale -Immersion-Emersion Anti-White, CRIS – IA = Cross Racial Identity Scale - Internalization Afrocentric; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive.

Cluster Analyses

The number of groups of perfectionists and non-perfectionists was determined by cluster analysis. The participant's standardized APS-R subscale scores on High Standards, Order, and Discrepancy were submitted to a cluster analysis to determine in which group they should be placed. The cluster analyses involved a two-step process. The first step was to conduct a hierarchical cluster analysis using Ward's linkage method with the squared Euclidian distance measure. Standardized scores of the High Standards, Order, and Discrepancy subscales were used as variables in the analysis. Three groups were expected to emerge and the percentage of change in moving from one cluster solution to another served as an index of the increase in cluster homogeneity (Hair, Anderson, Tatham, & Black, 1995, p. 448). Support was found for a three-cluster solution in the hierarchical analysis. The percentage of change in agglomeration coefficients indicated a 23% increase rate of the agglomeration coefficient when the solution decreased from four to three clusters. A 45% increase rate of the agglomeration coefficient was found when the solution decreased from three to two clusters. Large increases indicated that the two clusters joined at that step resulted in a joint cluster that was markedly less homogeneous (Hair & Black, 2000). As a result, a three-cluster solution was used. This solution is consistent with the results of previous research (Grzegorek, et al., 2004; Rice & Slaney, 2002) and theoretical expectations. Next, a non-

hierarchical k-means cluster analysis was conducted using the 3-cluster solution. The centroids or standardized High Standards, Order, and Discrepancy subscale means of the clusters from the previous step were used as the starting points in the k-means analysis. It was determined that there were three groups, adaptive perfectionists, maladaptive perfectionists, and non-perfectionists. To determine the labels of each cluster group, means of non-standardized High Standards, Order, and Discrepancy scores of the APS-R were computed and compared between groups.

Participants in the first cluster had the second highest scores on the High Standards subscale, highest scores on the Order subscale, and the lowest scores on the Discrepancy subscale and were labeled as adaptive perfectionists. Participants in the second cluster had significantly higher High Standards and Discrepancy scores than the two other clusters and the second highest scores on the Order subscale; they appeared to be maladaptive perfectionists. The third cluster's participants had the lowest scores on the High Standards and Order subscales and were labeled as non-perfectionists. Based on the cluster analysis, the sample consisted of 111 adaptive perfectionists, 43 non-perfectionists, and 99 maladaptive perfectionists. The three groups differed on the three subscales of the APS-R Standards: $F_{(2, 252)} = 53.62$, $p < .01$, Discrepancy: $F_{(2, 252)} = 291.09$, $p < .01$, and Order: $F_{(2, 252)} = 128.96$, $p < .01$). The gender distribution across the three groups of perfectionists for all the participants is presented in Table 3.

Table 3

The Gender Distribution across the Three Groups of Perfectionists (N=253)

	Adaptive Perfectionists	Non-Perfectionists	Maladaptive Perfectionists
Females	55	20	48
Males	56	23	51

Results indicated that the distribution of gender across the three clusters did not differ, χ^2 (1, N = 253) = .194, p > .05. This was true for both universities (The University of Memphis: χ^2 (1, N = 142) = 2.82, p > .05; The Pennsylvania State University: χ^2 (1, N = 111) = 1.52, p > .05).

Analysis of Variance

An analysis of variance was conducted using the APS-R clusters as the independent variable and GPA as the dependent variable. The results were statistically significant. F (2, 250) =7.55, p= .000. The results for the Tukey HSD test indicated the means for the adaptive perfectionists (3.09) were higher than and statistically different from the means for the maladaptive participants (2.81). The means for the non-perfectionists (2.91) did not differ significantly from either of the other groups.

Multivariate Analyses of Variance

A MANOVA comparing APS-R clusters groups, university, and the interaction of APS-R clusters and university was conducted to examine possible differences for self esteem and depression as measured by the RSE and the CES-D respectively. The results of the MANOVA indicated a statistically significant Wilks' Lambda for APS-R clusters,

$F (4, 492) = 5.49$, p < .001. The Wilks' Lambdas for university was $F (2, 246) = .15$, $p <$ .87 and for the interaction of clusters and university, $F (4, 492) = 2.01$. p < .09 were not statistically significant. The means, standard deviations and F values for RSE and CES-D by the APS-R clusters are presented in Table 4. Appendix G contains the means and standard deviations for all the dependent variables by APS-R clusters.

Table 4

Means and Standard Deviations by Cluster Group for RSES and CES-D.

Subscale	Adaptive Perfectionists n = 111		Maladaptive Perfectionists n = 99		Non-Perfectionists n = 43		F	Partial η²
	M	SD	M	SD	M	SD		
RSE	35.81 [a]	4.74	30.97 [b]	5.91	33.28 [c]	6.23	20.40	0.14
CES-D	11.54 [a]	9.51	20.10 [b]	11.33	16.42 [b]	12.26	16.73	0.12

Note. Both univariate *F* tests were significant at *p* < .05. *F* tests were based on *df* = 2, 250. Values with differing subscripts indicate significant within-row mean score differences between the clusters of perfectionists, using Tukey HSD post hoc comparisons significant at *p* < .05. RSE = Rosenberg Self-Esteem Scale; CES-D = Center for Epidemiological Studies–Depression.

For RSE, self-esteem, the adaptive perfectionists reported significantly higher scores than the non-perfectionists and the maladaptive perfectionists. The non-perfectionists had significantly higher scores than the maladaptive perfectionists. For CES-D, depression scores, the adaptive perfectionists reported significantly lower scores (less depressed) than the maladaptive perfectionists and non-perfectionists, while there was no significant difference between the latter two groups.

A preliminary 3x2 MANOVA on the CRIS subscales with the APS-R clusters, university, and the interaction of APS-R clusters and university as the independent variables indicated there was a statistically significant effect for APS-R clusters and

university but not for the interaction of university and APS-R clusters. For that reason a MANCOVA, with university as the covariate, was conducted. The results of the MANCOVA indicated a statistically significant Wilks Lambda for APS-R cluster, $F_{(12, 488)} = 3.60$, p=<.001, with partial eta squared = .08, To interpret the statistically significant relationship between the APS-R clusters and the linear composite of the CRIS subscales, a descriptive discriminant analysis was conducted. One function out of two was statistically significant; Wilks Lambda = .847, Chi square (12, 253) = 41.14, p<.001 and practically significant (R= .35). Table 5 provides a summary of the standardized discriminant function coefficients and the correlations of the CRIS subscales with the function. The Immersion-Emersion Anti-White subscale had the highest positive correlation with the function, followed by Pre-Encounter Self-Hatred, Internalization Afrocentric, and Pre-Encounter Miseducation. In contrast, the Internalization Multicultural and Pre-Encounter Assimilation subscales had negative correlations with the function. Consistent with the theoretical definitions of the CRIS subscales (Cross & Vandiver, 2001) and configurations reported by Worrell et al. (2006) the function was labeled Racial Immersion-Emersion.

Table 5

*Correlation Coefficients and Standardized Function Coefficients for Descriptive
Discriminant Analyses between APS-R Clusters and the CRIS Subscales*

	Correlation Coefficients with Discriminant Function	Standardized Function Coefficients
CRIS-PA	-.168	-.268
CRIS-PM	.447	.417
CRIS-PSH	.581	.424
CRIS-IEAW	.637	.266
CRIS-IA	.575	.427
CRIS-IMCI	-.352	-.305

Note. N = 253; CRIS-PA = Cross Racial Identity Scale – Pre-Encounter Assimilation;
CRIS-PM = Cross Racial Identity Scale – Pre-Encounter Miseducation; CRIS-PSH =
Cross Racial Identity Scale – Pre-Encounter Self-Hatred; CRIS-IEAW = Cross Racial
Identity Scale – Immersion-Emersion Anti-White; CRIS-IA = Internalization Afrocentric;
CRIS-IMCI = Internalization Multiculturalist Inclusive.

As characterized by the APS-R clusters' means on the discriminant functions,
participants in the adaptive cluster were lower on racial immersion (-.37), indicating a
broad cultural perspective extending beyond race. Participants in the maladaptive cluster
were higher on racial immersion (.44), indicating that Blackness had high salience in
their lives regardless of its valence (positive or negative). Ratings for participants in the
non-perfectionist cluster fell in the middle (-.06) indicating the absence of either a high or
low focus on Blackness.

CHAPTER FIVE

Discussion

This chapter summarizes the findings of the present study as they relate to each of

the research questions. The limitations of this research along with suggestions for future

research are discussed. The present study provides additional support for the three

clusters found in previous studies of the APS-R (e.g., Grzegorek et al., 2004; Mobley et

al., 2005; Rice & Slaney, 2002) related to adaptive and maladaptive perfectionists, and

non-perfectionists. The findings of this research support the utility of the APS-R in

research on African American students attending predominantly White universities.

Prior studies have had mixed results regarding the relationship between GPA and

perfectionism. For example, Grzegorek et al. (2004) and Mobley et al. (2005) found that

there were no significant differences between adaptive and maladaptive perfectionists on

GPA. In the present study, adaptive perfectionists had higher GPAs than the maladaptive

perfectionists; however, the adaptive perfectionists did not differ from the non-

perfectionists. These findings were inconsistent with the results of Grzegorek et al.

(2004) and Mobley et al. (2005) and partially consistent with previous research

conducted by Rice and Slaney (2002), who found that the adaptive perfectionists in their

second study (but not in the first study) had significantly higher GPAs than the

maladaptive perfectionists and non-perfectionists.

Adaptive perfectionists had higher self-esteem scores on the RSE than both the

non-perfectionists and maladaptive perfectionists. These findings are similar to results

found in previous studies (Grzegorek et al., 2004; Mobley, 1998; Mobley et al., 2005;

Rice & Slaney, 2002). For example, the results of this study are in accord with research

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from the two studies conducted by Rice and Slaney (2002). The results of the second study by Rice and Slaney (2002) emphasized that adaptive perfectionists had significantly higher scores than both the maladaptive perfectionists and the non-perfectionists on the RSE. Scores for the maladaptive perfectionists and non-perfectionists were found to be substantially equivalent. These results differ from those found in Rice et al. (1998). They found that adaptive perfectionism was not significantly associated with self-esteem. They measured adaptive perfectionism by combining the APS with Frost et al.'s (1990) Multidimensional Perfectionism scale. On the other hand, there was a statistically significant correlation between maladaptive perfectionism and low self-esteem. However, Ashby and Rice (2002) found that there was a positive relationship between adaptive perfectionism, as measured by the High Standards scale of the APS-R, and self-esteem. Maladaptive perfectionism, as measured by the Discrepancy scale of the APS-R was again found to have a substantive negative relationship with self-esteem. These results support the use of the APS-R's High Standards subscale as a measure of adaptive perfectionism.

In the present study, adaptive perfectionists had lower levels of depression than the maladaptive perfectionists and the non-perfectionists. These results are partially consistent with previous research conducted by Mobley et al. (2005) who found that maladaptive perfectionists had higher scores on the CES-D. Mobley (1998) suggested that the lack of differences between maladaptive and non-perfectionists could be attributed to differences that were "less clear than in majority samples… due to a smaller number of participants…" (p. 636). Mobley had a similar number of participants as the present study. Maladaptive perfectionists appear not to be able to meet their

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expectations/standards which logically seem related to higher levels of depression. Additionally, maladaptive perfectionism has been linked in previous studies to higher levels of depression (Grzegorek et al., 2004, Mobley, 1998; Mobley et al., 2005; Slaney & Rice, 2002). It is not clear why the non-perfectionists did not differ from the maladaptive perfectionists. This result replicates Mobley's finding and raises the question of whether the non-perfectionists in these two studies perhaps need additional research and clinical attention as do the maladaptive perfectionists.

Adaptive perfectionists, maladaptive perfectionists, and non-perfectionists were compared on the subscales of the CRIS using MANCOVA and descriptive discriminant analyses. The results are consistent with the conceptual formulations and empirical measures of adaptive and maladaptive perfectionists and non-perfectionist clusters based on the APS-R. They are also consistent with the expanded Nigrescence model as measured by the CRIS. The flexibility of the adaptive perfectionists and the rigidity of the maladaptive perfectionists was reflected in how these participants perceived their reference group orientation (RGO) of Black identity. On average, the adaptive participants tended to report a more racially broad RGO, rating themselves higher on multicultural, i.e. culturally inclusive, attitudes—to a lesser extent on assimilation (pro-American attitude)—and they tended to reject racially focused or immersed RGO, regardless of whether it was positive (Afrocentric) or negative (miseducation or self-hatred). This pattern is in keeping with attributes associated with adaptive perfectionists. Those who are likely to have an adaptive style of perfectionism are likely to have a broader view of their racial identity. On the other hand, maladaptive perfectionists on average tended to rate themselves higher on racially focused RGOs, which seemingly

parallel their style of perfectionism. The non-perfectionists fell between the adaptive and maladaptive perfectionists with neither a high or low focus on Blackness.

These findings have possible sociopolitical and clinical implications. From a historical perspective, it is not surprising that Black individuals who strongly identify with the Black struggle for Civil Rights may be extremely focused to the point that they may impose undue pressure on themselves that may be related to self-criticism and pressure to prove who they are, only to find themselves having more difficulty in reaching their desired goals. Thus, a vicious cycle might occur in experiencing mainstream systems as non-supportive that, in turn, reinforces their strong Black identity that is consistent with a maladaptive perfectionist style. These conclusions do not mean that all Blacks who have a racially immersed Black identity are also maladaptive perfectionists. What it may mean is that counselors may want to explore such a connection if a Black student reports a racially immersed Black identity, is attending a pre-dominantly White institution and is struggling with achievement. If such a pattern is observed, then helping the client to address her or his maladaptive perfectionism might improve achievement level and sociocultural functioning without a fundamental alteration in RGO.

By and large, the results of this research were generally consistent with the hypotheses and the results of previous studies (Grzegorek et al., 2004; Mobley, 1998; Mobley et al., 2005; Rice & Slaney, 2002). There were some unexpected results in this study. which call for further exploration. Although not all the hypotheses in this study were confirmed, for the most part the means were in the right direction and this has also occurred in past studies. Unexpectedly, the adaptive perfectionists (M = 3.09) did not

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differ significantly from the non-perfectionists ($M = 2.93$) on GPA. In addition, the maladaptive perfectionists did not differ from the non-perfectionists on the CES-D scale. The findings for the CRIS seemed consistent with the conceptualization of the APS-R and provide exciting implications for future research.

This study investigated perfectionism relative to African American college students. Mobley et al. (2005) was the only other study that found support for the validity of the APS-R with African American students. Similar to the present study, Grzegorek et al. (2004), Mobley et al. (2005), and Rice and Slaney (2002) found three clusters based on APS-R scores. In addition, the results of this study also found, as did the aforementioned studies, that discrepancy and depression had a positive correlation while there was a negative relation between discrepancy, self esteem and GPA. Adaptive perfectionism and self-esteem, in contrast, were positively related.

Findings of the present study indicated that the non-perfectionists did not differ from the maladaptives on the CES-D. Both Grzegorek et al.'s (2004) study and Rice and Slaney's (2002) second study had similar findings with a majority White population. Similarly, Mobley et al. (2005) found that depression scores for maladaptive and non-perfectionists were not significantly different. In comparison to the present study, Grzegorek et al.'s (2004) study used Blatt's et al.'s (1976) Depressive Experiences Questionnaire to measure depression. They found that the depression scores for non-perfectionists also fell between the scores of the adaptive and maladaptive perfectionists. More research is needed to investigate the similarity between maladaptive and non-perfectionists. Perhaps non-perfectionists have some issues with depression that have not been adequately addressed in the literature. Further research examining depression in

non-perfectionists may be warranted. In terms of RSE, adaptive perfectionists had higher RSE scores than maladaptive perfectionists and non-perfectionists. These results are similar to those in study 1 conducted by Rice and Slaney (2002).

Additional research has been conducted investigating the subscales of the CRIS indicating they are generalizable to other African American populations (Worrell, Vandiver, Cross, & Fhagen-Smith, 2004; Worrell, Vandiver, Schaefer, Cross, & Fhagen-Smith, 2006). However, additional studies exploring perfectionism among various racial and ethnic groups are needed, especially in university and college settings. Since most of these institutions encourage diversity and hold minority retention as an important goal, it may be fruitful to better understand as many factors as possible relating to academic success within racial and ethnic groups. Within predominantly White institutions, ethnic minority students may not have their particular needs or problems recognized. Because perfectionism is an issue for some minority students, research on how it affects minorities seems necessary. Also, if perfectionism is an important subject for study in the majority community, then there is no apparent reason why it should not be an important field for inquiry for non-majority racial and ethnic groups. Given issues with minority retention noted earlier, it seems particularly important to study perfectionism in non-majority racial and ethnic groups. Additional research that addresses the causes and particularly the treatment of maladaptive perfectionism seems timely and appropriate. Research has shown that a multitude of factors (perfectionism, self-esteem, depression, and racial identity) may contribute to the success of African American college students in universities (Cross, 1971, 1991; Kelly, Kelly, Brown, & Kelly, 1999; Mobley, 1998; Mobley, Slaney, & Rice, 2005; Phelps, Taylor, & Gerard, 2001; Vandiver, 2001;

Vandiver et al., 2002). Perfectionism appears to be a trait that needs further exploration with ethnic minorities to address the varying academic and personal needs of the population.

Limitations of the Study

Although this study had an adequate number of participants and utilized several instruments for measuring academic performance, there were some limitations. Although the three clusters of the APS-R replicated past, there are subjective aspects of conducting cluster analyses that may qualify its findings. Another limitation may be that each student was given $5.00 to participate in the study. How this may have affected participants is unclear but the possibility needs to be noted. Finally, the low internal consistencies found for the NCQ scales were highly disappointing. The attempt to clarify the reason for these results did not lead to clear conclusions that support the use of these scales in future research.

Counseling Implications

Perfectionism, self-esteem, depression, and racial identity have important implications for counseling centers. These characteristics are important to consider when providing therapy to college students. Perfectionism is a complex and multidimensional phenomenon. It is important for clinicians to be knowledgeable of both the adaptive and maladaptive aspects of perfectionism in order to serve clients. The traits associated with maladaptive perfectionism may mask the reality that perfectionism should be the focus of concern rather than depression, obsessiveness, low self-esteem, or negative self-concept. If clinicians are aware of the characteristics of perfectionism they may be less likely to

misdiagnose. As a result, they can better assist the client with developing coping mechanisms to confront their issues and achieve within the college environment.

Research has shown what roles depression and self-esteem have played in predicting academic success among college students. It is vital for clinicians to assess for symptoms of depression and low self-esteem in order to help the student develop those coping strategies that lead to psychological well-being. If a student has low self-esteem and depression, he or she may have a difficult time first matriculating and then achieving his or her highest potential in college.

Overall, university counselors and clinicians will want to help the clients identify unhealthy characteristics which may affect their ability to achieve academically. Thus interventions designed to address perfectionism in counseling are vital in order to appropriately meet the needs of some clients. "Therapists may need to help clients gain insight into the developmental influences of their perfectionism" (Rice, Ashby, & Presser, 1996, p. 258). If they gain insight about their perfectionism, they may be able to identify signs early and address the issues as they arise before their psychological well-being is affected. Since perfectionism is multidimensional, a clinician may want to consider that the client may also have some adaptive perfectionist traits. Additionally, "when possible, work with the strengths of adaptive perfectionism in the therapeutic process" (Rice, Ashby, & Slaney, 1998, p. 312). Clinicians can then work towards accentuating the positive aspects of perfectionism and develop ways to help the client rid himself or herself cope with maladaptive aspects of perfectionism.

Summary

In summary, the present study supports the relevance and multidimensionality of perfectionism with African American college students. The study of perfectionism using racial identity as measured by the CRIS is an untapped line of research that may prove beneficial in understanding perfectionism and its influence on the academic success of college students of color. More advanced studies investigating racial identity along with perfectionism could assist clinicians in addressing the needs of individuals and enhancing their understanding and management of the maladaptive aspects of perfectionism.

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APPENDIX A

PRE-NOTIFICATION LETTERS

Pre-notification Letter

Dear Students,

My name is Audrey A. Elion, and I am an African American doctoral student in the American Psychological Association (APA) approved Counseling Psychology program at The Pennsylvania State University. I am writing to request your participation in my doctoral dissertation study. This study examines the relationship of perfectionism to academic achievement, self-esteem, depression, and racial identity in African American college students.

The study will take approximately 20-30 minutes to complete. I would like to request your assistance in completing the survey and as an incentive you will receive $5.00. You must be 18 years of age to participate in this study and have completed at least one semester at The Pennsylvania State University. If you are interested in participating, please come by the Paul Robeson Cultural Center to complete the survey. I have a conference room in the Paul Robeson Cultural Center for participants to fill out the survey. Please feel free to come by this week on Thursday or Friday from 10AM to 4PM. I will also be available next week (Monday-Wednesday) from 10AM to 4PM.

If you have any questions or problems that arise in connection with this study, please feel free to contact me at aelion1@yahoo.com. You may also contact Dr. Robert B. Slaney, head of Department of Counselor Education, Counseling Psychology, and Rehabilitation Services, who is my dissertation chair at rslaney@psu.edu or at (814) 865-6643. I will appreciate your help in gathering needed information on African Americans.

Sincerely,

Audrey A. Elion

Pre-notification Letter 2

Dear Students,

My name is Audrey A. Elion, and I am an African American doctoral student in the American Psychological Association (APA) approved Counseling Psychology program at The Pennsylvania State University. I am writing to request your participation in my doctoral dissertation study. This study examines the relationship of perfectionism to academic achievement, self-esteem, depression, and racial identity in African American college students.

The study will take approximately 20-30 minutes to complete. I would like to request your assistance in completing the survey and as an incentive you will receive $5.00. You must be 18 years of age to participate in this study and have completed at least one semester at The Pennsylvania State University. If you are interested in participating, please come by the University Center to complete the survey. I will be in the student activity room in the University Center for participants to fill out the survey. Please feel free to come by this week between 10AM and 5PM Monday-Wednesday Friday.

If you have any questions or problems that arise in connection with this study, please feel free to contact me at aelion1@yahoo.com. You may also contact Dr. Robert B. Slaney, head of Department of Counselor Education, Counseling Psychology, and Rehabilitation Services, who is my dissertation chair at rslaney@psu.edu or at (814) 865-6643. I will appreciate your help in gathering needed information on African Americans.

Sincerely,

Audrey A. Elion

APPENDIX B

INFORMED CONSENT FORMS

The Pennsylvania State University

Title of Project: The Relationship of Perfectionism to Academic Achievement, Self-Esteem, Depression, and Racial Identity in African American College Students Attending a Predominantly White University

Principal Investigator: Audrey A. Elion, M. S.   aelion1@yahoo.com
Other Investigator(s):   Dr. Robert B. Slaney, 327 CEDAR Building, University Park, PA 16802
                                     rslaney@psu.edu or (814) 865-6643

1. Purpose of the Study: The purpose of this research is to investigate the relationship of perfectionism to academic achievement, self-esteem, depression, and racial identity in African American college students.

2. Procedures to be followed: Participation in this research will include completion of one demographic questionnaire and five surveys. Approximately 200 people will take part in this study. Please do not write your name on the surveys or scantron sheet.

3. Discomforts and Risks: The surveys are not designed to cause any discomfort or risk to the participant; however, if the participant feels uncomfortable by taking the surveys, then he/she is allowed to not complete the survey. In addition, if the participant experiences any level of discomfort as a result of filling out the survey, he/she can contact Counseling and Psychological Services at The Pennsylvania State University at (814)863-0395. Again, there is no way to identify the participant based on his/her responses to the survey.

4. Benefits:
   a. The benefits to participants include assisting students in gaining insight about their standards, values, and identity. This level of insight may help them gain knowledge about themselves.

   b. The benefits to society include aiding mental health professionals in working with African American college students to address perfectionism concerns and identify factors that may be contributing to students' academic performance, achievement, and psychological health in predominantly white universities.

5. Duration/Time: It will take approximately 20-30 minutes to complete the questions.

6. Statement of Confidentiality: The information you provide will not be given to anyone. Neither the student nor the investigator will be able to match an individual with a survey. The number on the scantron sheets is simply a way to keep track of the number of completed surveys for the data collection purposes only.

7. Right to Ask Questions: Participants have the right to ask questions and have those questions answered. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775. If you have questions regarding the research study, you may contact Audrey Elion at

aelion1@yahoo.com. Or you may contact, Dr. Robert B. Slaney at rslaney@psu.edu or (814) 865-6643.

8. Compensation: Participants who complete the survey will be compensated in the amount of $5.00 after they hand in a completed survey.

9. Voluntary Participation: Participation is voluntary. Participants can withdraw from the study at any time by notifying the principal investigator. Participants can decline to answer specific questions.

You must be 18 years of age or older to consent to participate in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Please respond to all of the items. When appropriate fill in the appropriate number on the computer answer sheet that is provided. Please respond to item 7 in the space provided on the back of your scantron sheet.

1.   What is your age? _____

2.   What is your gender? (1) Female (2) Male

3.   What is your cumulative GPA (e.g., 3.12)?

4.   What is your race/ethnicity?
        (1) African American/Black
        (2) Biracial
        (3) African
        (4) Multiracial
        (5) Other

5.   What is your class standing? (1) Freshman   (2) Sophomore   (3) Junior
         (4) Senior (5) Master's student   (6) Doctoral student

6.   Please rate the degree to which you are satisfied with your GPA.

Very Dissatisfied	Dissatisfied	Neutral	Somewhat Satisfied	Completely Satisfied
1	2	3	4	5

7.   Please list offices held or any organizations/groups that you are and/or have been
        a member of in college.

        _____

        _____

        _____

8. I believe I have to work two or three times as hard as white students to get the
    same results.

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

APPENDIX D

RESEARCH QUESTIONNAIRE

THE ALMOST PERFECT SCALE-REVISED

(APS-R; Slaney, et al., 1996)

THE NONCOGNITIVE QUESTIONNAIRE

(NCQ; Tracey & Sedlacek, 1984)

THE ROSENBERG'S SELF-ESTEEM SCALE

(RSE; Rosenberg, 1965)

THE CENTER FOR EPIDEMIOLOGICAL STUDIES-DEPRESSION SCALE

(CES-D; Radloff, 1977)

THE CROSS RACIAL IDENTITY SCALE

(CRIS; Vandiver, et al., 2000)

APS-R Short Form

The following items are designed to measure attitudes people have toward themselves, their performance, and towards others. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items in responding.

Respond to each of the items using the scale below to describe your degree of agreement with each item. Fill in the appropriate number on the computer answer sheet that is provided.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

9.   I have high standards for my performance at work or at school.

10.   I am an orderly person.

11.   I often feel frustrated because I can not meet my goals.

12.   Neatness is important to me.

13.   If you don't expect much out of yourself, you will never succeed.

14.   My best just never seems to be good enough for me.

15.   I think things should be put away in their place.

16.   I have high expectations for myself.

17.   I rarely live up to my high standards.

18.   I like to always to be organized and disciplined.

19.   Doing my best never seems to be enough.

20.   I set very high standards for myself.

21.   I am never satisfied with my accomplishments.

22.   I expect the best from myself.

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

23. I often worry about not measuring up to my own expectations.

24. My performance rarely measures up to my standards.

25. I am not satisfied even when I know I have done my best.

26. I try to do my best at everything I do.

27. I am seldom able to meet my own high standards of performance.

28. I am hardly ever satisfied with my performance.

29. I hardly ever feel that what I've done is good enough.

30. I have a strong need to strive for excellence.

31. I often feel disappointment after completing a task because I know I could have done better.

Non-Cognitive Questionnaire (NCQ)

<u>Instructions</u>

For items 31-53, please fill in the appropriate number on the computer scantron sheet that is provided. Please respond to items 32, 34, and 53 in the spaces provided on the back of your scantron sheets.

32.   How much education do you expect to get during your lifetime?
        1. College, but less than a bachelor's degree
        2. B.A. or equivalent
        3. One or two years of graduate or professional study (master's degree)
        4. Doctoral degree such as M.D., Ph.D., and so on

33.   Please list three goals that you have for yourself right now:

        1. _____

        2. _____

        3. _____

34.   About 50 percent of university students typically leave before receiving a degree. If this should happen to you, what will be the most likely cause.
        1. Absolutely certain that I will obtain a degree
        2. To accept a good job
        3. To enter military service
        4. It will cost more than my family can afford
        5. Marriage
        6. Disinterest in study
        7. Lack of academic ability
        8. Insufficient reading or study skills
        9. Other

35.   Please list three things that you are proud of having done

        1._____

        2._____

        3._____

Please indicate the extent to which you agree or disagree with each of the following items. Respond to the statements below with your feelings at present or your expectation of how things will be. Record your answer on the computer answer sheet that is provided.

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

36. The university should use its influence to improve social conditions in the state.

37. It should not be very hard to get a B (3.0) average at this school.

38. I get easily discouraged when I try to do something and it doesn't work.

39. I am sometimes looked up to by others.

40. If I run into problems concerning school, I have someone who would listen to e and help me.

41. There is no use in doing things for people; you only find that you get it in the neck in the long run.

42. In groups where I am uncomfortable, I am often looked to as a leader.

43. I expect to have a harder time than most students at this school.

44. Once I start something, I finish it.

45. When I believe strongly in something, I act on it.

46. I am as skilled academically as the average applicant to this school.

47. I expect I will encounter racism at this school.

48. People can pretty easily change me even though I thought my mind was already made up on the subject.

49. My friends and relatives don't feel I should go to college.

50. My family has always wanted me to go to college.

51. If course tutoring is made available on campus at no cost, I would attend regularly.

52.   I want a chance to prove myself academically.

53.   My high school grades don't really reflect what I can do.

54.   Please list offices held and/or groups belonged to in high school or in your community.

_____

_____

_____

Rosenberg Self-Esteem Scale (RSE)

Please mark on your computer answer sheet, the number indicating the degree to which you agree with each statement according to the scale below.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

55.   I feel that I am a person of worth, at least on an equal plane with others.

56.   I feel that I have a number of good qualities.

57.   All in all, I am inclined to feel that I am a failure.

58.   I am able to do things as well as most other people.

59.   I feel that I do not have much to be proud of.

60.   I take a positive attitude toward myself.

61.   On the whole, I am satisfied with myself.

62.   I wish I could have more respect for myself.

63.   I certainly feel useless at times.

64.   At times I think I am no good at all.

Center for Epidemiological Studies-Depression Scale (CES-D)

<u>Instructions</u>

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

1.   Rarely or none of the time (Less than 1 day)

2.   Some or a little of the time (1-2 days)

3.   Occasionally or a moderate amount of time (3-4 days)

4.   Most or all of the time (5-7 days)

During the past week:

65.   I was bothered by things that usually don't bother me.
66.   I did not feel like eating; my appetite was poor.
67.   I felt that I could not shake off the blues even with help from my family and
        friends.
68.   I felt that I was just as good as other people.
69.   I had trouble keeping my mind on what I was doing.
70.   I felt depressed.
71.   I felt that everything I did was an effort.
72.   I felt hopeful about the future.
73.   I thought my life had been a failure.
74.   I felt tearful.
75.   My sleep was restless.
76.   I was happy.
77.   I talked less than usual.
78.   I felt lonely.
79.   People were unfriendly.
80.   I enjoyed life.
81.   I had crying spells.
82.   I felt sad.
83.   I felt that people dislike me.
84.   I could not get "going."

Cross Racial Identity Scale (CRIS)

This questionnaire is intended to measure people's attitudes about race. Please respond to all of the items. Use your first impression. Fill in the appropriate number on the computer answer sheet that is provided.

The CRIS was comprised of questions 85-124 that are measured by a 7- Likert scale. The authors gave permission to show six of the CRIS items, a sample from each of the subscales.

1.   Pre-Encounter Assimilation
        I think of myself primarily as an American and seldom as a member of a racial group.

2.   Pre-Encounter Miseducation
        Blacks place more emphasis on having a good time than on hard work.

3.   Pre-Encounter Self-Hatred
        I sometimes have negative feelings about being Black.

4.   Immersion-Emersion Anti-White
        I hate White people.

5.   Internalization Afrocentric
        Black people will never be free until we embrace an Afrocentric perspective.

6.   Internalization Multiculturalist Inclusive
        I believe that it is important to have both a Black identity and a multicultural perspective, which is inclusive of everyone (e.g., Asians, Latinos, gays & lesbians, Jews, Whites, etc.).

Thank you for your time.

APPENDIX E

MEANS AND STANDARD DEVIATIONS FOR ALL STUDY VARIABLES

Table 6
Means and Standard Deviations for all of the Study Variables

Measures	M	SD
High Standards	6.10	0.83
Order	5.44	1.08
Discrepancy	3.56	1.30
GPA	2.95	0.54
NCQ-RACE	17.80	3.97
NCQ-RSA	8.30	1.94
NCQ-LRG	8.59	2.02
NCQ-ASS	12.11	3.48
NCQ-LEAD	8.83	2.11
NCQ-COMM	4.97	1.26
NCQ-PSC	16.90	2.74
NCQ-KAF	3.71	0.93
RSE Total score	33.49	5.89
CES-D Total score	15.72	11.39
CRIS-PA	15.79	7.69
CRIS-PM	18.38	6.45
CRIS-PSH	10.68	5.80
CRIS-IMC	25.54	6.11
CRIS-IEAW	10.26	6.32
CRIS-IA	17.05	4.85

Note. GPA = Grade Point Average; NCQ-RACE = Non-Cognitive Questionnaire - Racism; NCQ-RSA = Non-Cognitive Questionnaire - Realistic Self-Appraisal; NCQ-LRG = Non-Cognitive Questionnaire – Long-Range Goals; NCQ-ASS = Non-Cognitive Questionnaire – Availability of Strong Support; NCQ-LEAD = Non-Cognitive Questionnaire - Leadership; NCQ-COMM = Non-Cognitive Questionnaire – Community Involvement; NCQ-PSC = Non-Cognitive Questionnaire - Positive Self-Concept; NCQ-KAF = Non-Cognitive Questionnaire – Knowledge Acquired in a Field; RSE = Rosenberg Self-Esteem Scale; CES-D = Center for Epidemiological Studies –Depression; CRIS – PA = Cross Racial Identity Scale - Pre-Encounter Assimilation; CRIS – PM = Cross Racial Identity Scale - Pre-Encounter Miseducation; CRIS- PSH = Cross Racial Identity Scale - Pre-Encounter Self-Hatred; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive; CRIS – IEAW = Cross Racial Identity Scale - Immersion-Emersion Anti-White, CRIS – IA = Cross Racial Identity Scale - Internalization Afrocentric.

APPENDIX F

INTERCORRELATIONS BETWEEN STUDY VARIABLES

Table 7
Intercorrelations Between Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. High Standards	**.80**	.51**	-.02	.27**	.15	.15	.24**	.20*	.13	.05	.18*	-.03	.16	-.13	-.11	-.05	.03	.13	-.02	.23*
2. Order	.59**	**.76**	-.03	.11	.13	-.09	.19*	.06	-.14	.07	.12	-.03	.12	-.07	.05	.12	-.02	.05	-.08	.02
3. Discrepancy	-.01	.02	**.90**	-.33**	.07	-.05	-.32**	-.03	-.01	-.16	.04	-.14	-.56**	.52	-.13	.13	.36**	-.19*	.20*	.24*
4. GPA	.19*	.09	-.10	--	-.08	.14	.14	.04	-.01	-.05	.04	-.05	.20*	-.19	-.16	-.33**	-.13	.25**	-.17	-.11
5. NCQ-RACE	.08	.08	.05	.06	**.60**	.52**	.43**	.73**	.39**	.47**	.58**	.22*	.12	-.10	-.12	-.02	.14	.10	.05	.19*
6. NCQ-RSA	.15	.07	.01	.06	.50**	**.23**	.32**	.60**	.39**	.26**	.43**	.23*	.06	-.10	.02	-.11	.02	.16	.02	.16
7. NCQ-LRG	.18*	.14	-.15	.05	.40**	.37**	**.18**	.50**	.33**	.28**	.33**	.04	.30**	-.32	-.03	-.09	-.09	.01	-.09	.04
8. NCQ-ASS	.11	-.03	-.08	.07	.71**	.52**	.44**	**.80**	.42**	.42**	.59**	.13	.09	-.23	-.07	-.07	-.02	.01	-.08	.13
9. NCQ-LEAD	.13	.00	-.01	.08	.46**	.49**	.32**	.60**	**.31**	.24**	.33**	.21*	.04	-.04	-.18*	-.01	.16	-.03	.04	.23*
10. NCQ-COMM	.12	.02	-.07	.01	.36**	.31**	.39**	.48**	.35**	**-.09**	.23**	.14	.17	-.19*	-.18	-.14	-.04	.14	-.08	-.09
11. NCQ-PSC	.12	.11	-.06	.06	.55**	.57**	.42**	.59**	.51**	.34**	**.22**	.04	.06	-.12	-.05	-.03	.01	-.01	.01	.15
12. NCQ-KAF	.03	.09	-.03	-.03	-.01	.14	.31**	.11	.28**	.22*	.05	**.20**	.19	-.07	.10	.11	-.03	.15	.05	.13
13. RSE	.25**	.10	-.39**	-.04	.14	.17	.33**	.28**	.25**	.23**	.17	.09	**.86**	-.51*	.03	-.04	-.32**	.17	-.07	.02
14. CES-D	-.24**	-.03	.36**	-.13	-.03	.00	-.12	-.19*	-.22*	-.23**	-.06	-.13	-.42**	**.90**	-.05	.11	.40**	-.09	.28**	.09
15. CRIS-PA	-.14	-.07	-.04	-.08	.02	.01	.02	.04	.05	-.02	-.05	.13	-.05	.08	**.85**	.51**	.19*	.03	-.07	-.20*
16. CRIS-PM	.01	-.03	.14	-.15	.00	.10	-.13	.06	.09	.02	-.10	-.01	-.08	.01	.08	**.76**	.18*	-.06	.12	.07
17. CRIS-PSH	-.19*	-.14	.19*	.15	-.10	-.16	-.20*	-.26**	-.19*	-.14	-.21*	.01	-.38**	.25**	.10	.20*	**.79**	-.12	.17	.05
18. CRIS-IMC	.29**	.15	-.17*	.09	-.09	-.04	.03	.00	.00	.14	.02	.03	.10	-.22*	.04	.22*	-.12	**.77**	-.34**	.06
19. CRIS-IEA	-.25**	-.06	.23**	-.07	-.08	-.06	-.19*	-.21*	-.05	-.21*	-.24**	.01	-.25**	.28**	-.07	.18*	.51**	-.18*	**.90**	.22*
20. CRIS-IA	.05	-.04	.22*	-.07	-.11	.04	-.11	-.14	-.10	-.02	-.20*	-.12	-.12	.23	-.15	.16	.13	-.01	.30**	**.82**

Note. *p* < .05, ** *p* < .01, two-tailed. Correlations for male participants are displayed on the lower diagonal, while correlations for female participants are displayed on the upper diagonal. Cronbach's coefficient alphas are displayed in bold. GPA = Grade Point Average; NCQ-RACE = Non-Cognitive Questionnaire – Deals with Racism; NCQ-RSA = Non-Cognitive Questionnaire - Realistic

Self-Appraisal; NCQ-LRG = Non-Cognitive Questionnaire – Long Range Goals; NCQ-ASS = Non-Cognitive Questionnaire – Availability of Strong Support; NCQ-LEAD = Non-Cognitive Questionnaire – Leadership; NCQ-COMM = Non-Cognitive Questionnaire – Community Involvement; NCQ-PSC = Non-Cognitive Questionnaire – Positive Self-Concept; NCQ-KAF = Non-Cognitive Questionnaire – Knowledge Acquired in a Field; RSE = Rosenberg Self-Esteem Scale; CES-D = Center for Epidemiological Studies –Depression; CRIS – PA = Cross Racial Identity Scale - Pre-Encounter Assimilation; CRIS – PM = Cross Racial Identity Scale - Pre-Encounter Miseducation; CRIS- PSH = Cross Racial Identity Scale - Pre-Encounter Self-Hatred; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive; CRIS – IEAW = Cross Racial Identity Scale - Immersion-Emersion Anti-White, CRIS – IA = Cross Racial Identity Scale - Internalization Afrocentric; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive.

APPENDIX G

MEANS AND STANDARD DEVIATIONS BY CLUSTER GROUP FOR THE

ALMOST PERFECT SCALE –REVISED (APS-R) AND ALL STUDY VARIABLES

Table 8
*Means And Standard Deviations By Cluster Group For The Almost Perfect Scale –
Revised and all Study Variables*

Subscale	Adaptive Perfectionists n = 111		Maladaptive Perfectionists n = 99		Non-Perfectionists n = 43		F	Partial η^2
	M	SD	M	SD	M	SD		
GPA	3.09 [a]	0.57	2.81 [b]	0.49	2.91 [ab]	0.49	7.55	0.06
RSE	35.81 [a]	4.74	30.97 [b]	5.91	33.28 [c]	6.23	20.40	0.14
CES-D	11.54 [a]	9.51	20.10 [b]	11.33	16.42 [b]	12.26	16.73	0.12
CRIS-PA	15.95	7.59	15.00	7.89	17.19	7.44	1.26	0.01
CRIS-PM	17.58 [ab]	6.53	19.82 [a]	6.71	17.16 [b]	4.99	4.19	0.03
CRIS-PSH	9.45 [a]	4.85	12.14 [b]	6.75	10.49 [ab]	4.97	5.89	0.05
CRIS-IMCI	26.73 [a]	6.10	24.88 [ab]	5.81	24.00 [b]	6.38	4.15	0.03
CRIS-IEAW	8.58 [a]	4.77	11.8 [b]	7.32	10.98 [ab]	6.42	7.69	0.06
CRIS-IA	16.06 [a]	4.33	18.28 [b]	4.99	16.77 [ab]	5.25	5.79	0.04

Note. All univariate *F* tests were significant at *p* < .05, except for CRIS-PA (*p*=.286). *F* tests were based on *df* = 2, 252. Values with different subscripts indicate significant within-row differences between the clusters using Tukey HSD post hoc comparisons, significant at *p* < .05. GPA = Grade Point Average; RSE = Rosenberg Self-Esteem Scale; CES-D = Center for Epidemiological Studies –Depression; CRIS – PA = Cross Racial Identity Scale - Pre-Encounter Assimilation; CRIS – PM = Cross Racial Identity Scale - Pre-Encounter Miseducation; CRIS- PSH = Cross Racial Identity Scale - Pre-Encounter Self-Hatred; CRIS - IMCI = Cross Racial Identity Scale - Internalization Multiculturalist Inclusive; CRIS – IEAW = Cross Racial Identity Scale -Immersion-Emersion Anti-White, CRIS – IA = Cross Racial Identity Scale - Internalization Afrocentric

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Dialogue Group Coordinator/Facilitator/Instructor   August 2001-May 2002
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