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Hatter, Denise Yvonne

THE RELATIVE IMPACT OF ACADEMIC ENVIRONMENT, SOCIAL SUPPORT AND LOCUS OF CONTROL ON STRESS AS REPORTED BY BLACK COLLEGE STUDENTS

The Ohio State University

Ph.D. 1985

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THE RELATIVE IMPACT OF ACADEMIC ENVIRONMENT, 
SOCIAL SUPPORT AND LOCUS OF CONTROL ON STRESS 
AS REPORTED BY BLACK COLLEGE STUDENTS 

DISSERTATION 

Presented in Partial Fulfillment of the Requirements for 
the Degree Doctor of Philosophy in the Graduate 
School of the Ohio State University 

by 

Denise Yvonne Hatter, B.A., M.A. 

**** 

The Ohio State University 
1985 

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To The Memory Of My Mother

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ACKNOWLEDGMENTS

It is the writer's contention that the completion of a dissertation project which culminates in the acquisition of the Ph.D. degree is a monumental accomplishment. My journey toward this end was long. Further, the old adage "No person is an Island..." is very applicable to my journey. It holds true for me because if my life had not been touched by several significant people along the way this goal may never have been realized.

Therefore it gives me great pleasure to express my sincere appreciation to several people. Primarily I offer gratitude to Dr. Don Dell for his unrelenting guidance and assistance. Thanks also go to the other members of my advisory committee, Dr. Lyle Schmidt and Dr. Paul Isaac. Ken Durgans is offered a special thank you for his energy and enthusiasm in helping me secure a subject population. To my family and friends, I express much appreciation for their love, support and belief in me.
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TABLE OF CONTENTS

DEDICATION ..................................................................................................................................... ii
ACKNOWLEDGEMENTS. ....................................................................................................................... iii
VITA. .............................................................................................................................................. iv
LIST OF TABLES ............................................................................................................................ vii

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td>12</td>
</tr>
<tr>
<td>III.</td>
<td>26</td>
</tr>
</tbody>
</table>

I. INTRODUCTION. ................................................................. 1

II. REVIEW OF LITERATURE. ...................................................... 12

Black Students In Predominately Black and/or White Colleges. 13

Social Support as a Moderator of Stress. 19

Locus of Control and Stress. 23

III. METHOD. ................................................................. 26

Research Expectancies and Hypotheses. 26

Subjects. ................................................................. 27

Measures. ................................................................. 28

The Psychological Distress Inventory (PDI). 28

The Social Support Questionnaire (SSQ). 29

Reid-Ware Three Factor Internal-External Scale. 31

Procedure. ................................................................. 33

Statistical Analyses. .......................................................... 34
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of subjects in experimental and comparison groups by gender and environment</td>
<td>34</td>
</tr>
<tr>
<td>2. Means and standard deviations for the groups on the stress, and social support variables</td>
<td>38</td>
</tr>
<tr>
<td>3. Summary of analyses of variance for ratings of stress and social support</td>
<td>39</td>
</tr>
<tr>
<td>4. Group by type of support response frequencies</td>
<td>42</td>
</tr>
<tr>
<td>5. Simultaneous regression on stress and predictor variables</td>
<td>43</td>
</tr>
<tr>
<td>6. Stepwise regression on stress and predictor variables</td>
<td>43</td>
</tr>
<tr>
<td>7. Correlation matrix of dependent variables and Race</td>
<td>44</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

A conceivably profound statement made by the originator of the stress concept, Hans Selye, cognizant of the perennial broad usage of the term, is that "everybody knows what stress is, and nobody knows what it is" (Selye, 1974). In accordance with the asserted state of affairs, Lazarus and Launier (1978) contend that stress has been referred to in the literature as a stimulus, response, or a relational concept among factors in a system (e.g., person-environment interaction). Thus, stress has been apparently defined in various ways contingent upon an investigator's approach to examining it.

Despite the noted disparity in the literature in how stress is explicated, an ever increasing number of researchers profess that stress is best conceptualized within the context of person-environment interaction (e.g., Goldberger & Breznitz, 1982; Myers, 1976; Stokols, 1978; Taylor, 1981). More explicitly, stress is viewed by some researchers as probable when situational demands are interpreted by an individual as threatening because they approach or exceed his/her perceived ability to efficaciously contend with the situation (Goldberger & Breznitz, 1982; Magnusson, 1982).
 Accordingly, consistent with the intentions of the current endeavor, stress will be defined as a subjectively aversive sensation, psychologically and/or physiologically experienced by an individual. The occurrence of stress, as proposed by the present investigator, is consistent with Magnusson's (1982) notion of an interaction between person variables and extant environmental or situational variables. Further, the realization of stress may be witnessed in a person's psychic and somatic reactions, which can be evinced as anxiety, tension, frustration, depression, and/or other bodily signs of discomfort; hereafter referred to as stress reactions (Magnusson, 1982).

Magnusson (1982), continues, to explicates the person and situational factors relative to an individual's stress experience. Primarily, he maintains that in reference to the individual, a major determinant of his/her propensity to experience stress in a given situation is his/her "vulnerability". "Vulnerability", as described by Magnusson (1982), in concurrence with Kessler (1979), involves a person's "physiological predispositions, perceptual-cognitive appraisals, and coping competence" (p. 235). The individual's learning history is also asserted to exert major influences on his/her "vulnerability", essentially because coping competence and mode of appraising stimuli are believed to be engendered by one's past experiences. Although psychological as well as physiological factors comprise "vulnerability", only the psychological aspects of such will be expounded upon. Secondly, but of no less importance, is the situational variable. The situational variable as professed by
Magnusson (1982), entails the physical and psychosocial factors that comprise it. Thus, in summation, the relationship between an individual's "vulnerability" and existing situational conditions is asserted to determine his/her experience of stress.

One can utilize the foregone discussion of stress to examine it as it may occur on various levels. One level, for example, may be conceived as a "macrolevel" wherein common laws, norms, attitudes, cultural and social factors held by a population in a given environment, to some extent, regulate their "vulnerability" to certain situations. This implies that some situations may be collectively appraised by a particular population as being more or less stressful than others, given the homogenization of their experiences (Magnusson, 1982).

Still, within any given population, there invariably exists some degree of individual difference, which may be viewed as a "microlevel". Associated with this "microlevel" are subcultural factors which will purportedly make certain groups of people "vulnerable" to certain environmental conditions, disproportionate to that experienced by the population at large (Magnusson, 1982). Further, Magnusson (1982), contends that the differential sensitivity of subcultural groups, to various situations, may reflect their "upbringing and unique experiences in the course of (their) development" (p. 246). This point refers back to the notion of the major influence provided by one's learning history. More important, Magnusson's (1982) contention about the differential sensitivity of subcultural groups, in comparison to the majority population, has been
supported by various research endeavors (e.g., Askenasy, Dohrenwend, &
Dohrenwend, 1977; Moyer & Motta, 1982) designed to assess the
magnitude of stress experienced in various situations, relative to
one's group membership (e.g., social class, ethnicity).

Myer's (1976) theoretical orientation to explaining the stress
concept is also consistent with Magnusson (1982). However, he gives
more explicit attention to the differential sensitivity of Blacks, as
a subcultural group, in comparison to the population at large, in
appraising environmental conditions as stressful. Myers (1976),
suggests: "looking at the variable ethnicity, we note that Blackness
is itself a highly stress inducing stimulus (sic) because of the
negative socio-political, cultural, and religious attitudes towards it
(i.e., racism). Membership in the Black race entails exposure to
highly stressful experiences, triggered essentially by the fact of
race. Thus despite socio-economic differences among Blacks, all
Blacks carry an added stress load generated by the fact of their
color" (p. 146). One can infer from Myers (1976) assertions, that in
any given situation that may be viewed as normatively stressful, a
Black individual will experience a comparatively higher level of
stress than the population at large, given the ramification of his/her
ethnicity. This view is also in accordance with the contentions of

Wright (1983) also agrees that ethnic background is significant
to an individual's susceptibility and vulnerability to stress in a
given environment. Yet, even though the above notion per se is
important to address, the implication that within a person-environment
framework, the person variable, ethnicity, may enhance the stress experiences of an individual is more germane to this endeavor. Further, still maintaining a person-environment perspective, it has been professed that several other factors which may be conceived as either personal or environmental can affect one's experience of stress.

Thus at this point, it may be useful to discuss other pertinent person and situational variables research has shown to be important, not only in illustrating the varied stress experiences between populations differing in ethnicity, but also of use in explicating stress differences encountered among people in general. One such variable, is the academic environment. It is widely viewed as a normatively stressful environment and has been studied extensively in that capacity (e.g., Caplan, 1981; Dukelow, 1980; Mechanic, 1962). The other factors that will be explored are locus of control and social support. Both locus of control and social support, although only recently, have been examined as potential stress moderators, as they are discussed herein.

Further, the latter two variables will be noted usually with particular reference to Blacks and more specifically Black students. However, on occasions the focus will shift to people in general largely because of the paucity of research examining Black students, locus of control, and social support within the context of stress. Academic environment will be discussed in terms of how and why racial composition of an educational institution (majority White versus majority Black) may contribute to a Black student's stress experience,
referring back to the person-environment framework.

In addressing the impact of academic environments, some researchers have examined the functioning of the Black student population in academic settings differing in racial composition (e.g., Fleming, 1981; Gummings, 1982; Noel & Burbank, 1978; Jones, 1976). While other investigators have studied Black students matriculating at a majority White academic institution without making comparisons to those in a predominately Black educational setting (Smith, 1981; Centra, 1970; White, Suddick & Brown, 1981).

As a result of such investigations, it has been widely asserted that Black students on majority White campuses experience more stress than their White counterparts by virtue of the interaction of their person variables (i.e., race, cultural beliefs) and negative environmental factors, discrimination and alienation, for example (Obelton, 1984). Moreover, the predominantly White campus environment has been described as a fairly hostile place for Black students, replete with factors such as frustration and disillusionment. According to Edmunds (1984) the preponderance of environmental stressors extant on a predominately White campus seems "unique" to its Black student population. Further, she contends that although Black and White students on such campuses interact within the same environment, Black students tend to perceive the environment with notable differences. Insensitive attitudes of the Institutional faculty, staff, and administrators were among the differences noted and identified as stressors for Black students in Edmunds' (1984) research.
However, there are problems with this area of the literature. Illustratively, there have been few definitive research endeavors which have involved a direct empirical investigation of stress per se, as experienced by a Black student population in either of the mentioned academic environments. Frequently, the stress variable has been minimally examined under the general topic of "problems encountered by Black students in academic settings" or "differences in perceived difficulties: Black students in predominately Black and predominately White colleges" (Jones, Harris & Hauck, 1975). It appears evident that the variable has not been studied as specifically as the convictions and assertions of writers in the area would indicate. More research is needed to substantiate the many statements made about the stress experienced by Black students on predominately White campuses, despite the plausible theoretical bases for the held perspectives. According to Erickson (1982) neither traditionally White nor Black universities have "recognized" the needs of their Black student body, implying that stress may be an unsolved problematic experience for Black students in either environment.

An important question for research is: since there is an abundance of empirical evidence suggesting that stress is inherent in academic settings, is there a difference in the magnitude of stress as experienced by Black students in a predominately White institution (PWI) versus a predominately Black institution (PBI)? Additionally it is of equal importance to inquire how Black students in either environment cope with stress. What external and/or intrapersonal mechanisms potentially mediate their experiences of stress? According
to Ganellen and Blaney (1984) social support and personality characteristics are types of variables that have been empirically identified as potential stress buffers. As mentioned earlier in text, social support and locus of control, a particular type of personality characteristic, will be examined in this writing.

Sarason (1981) maintains that social support may be defined as "the existence or availability of people with whom one can associate and on whom one can rely" (p. 101). Cobbs (1976) summarizes the existing perspectives of the concept and maintains that social support is exclusively comprised of information. This information, as Cobbs (1976) reports, serves one or more of three existing functions: (1) information to enhance the belief of an individual that s/he is loved and/or cared for; (2) information to increase an individual's belief that s/he is part of a network of communication and reciprocal commitment in which others can be counted upon should the need arise; and (3) information leading an individual to believe that s/he is esteemed and valued. Only recently this notion of social bonds and supportive interactions serving a somewhat ameliorative function in relation to stress has been given some empirical validation (e.g., Goplerud, 1980; Holahan & Moos, 1982; Lin, Ensel, Simeone, & Kuo, 1979). This may account for the paucity of studies applying the concept to stress and Blacks, particularly Blacks in higher education.

The concept locus of control, has been frequently examined with a Black subject population (Myers, 1976), yet not in the context of stress mitigation. In an exceptional study, Clark and Harrell (1982) examined the relationship among type A behavior, coping styles adopted
to contend with racism, and blood pressure in Blacks. As a consequence of their findings, they maintain that as researchers continue to assess the role stressful environments play in increasing the blood pressure in Blacks, the examination of the effects of personality variables should not be neglected. Somewhat corroborative is Mischel's (1976) assertion that locus of control is of particular theoretical importance because it seems to influence how people react to many situations. Moreover, he professes that stress apparently is influenced by whether or not an individual believes s/he has some degree of control over the events in his/her life.

Rotter (1966) who is credited with much of the theoretical bases of locus of control, explicates the variable in terms of external and internal control. From a social learning perspective, he defines internal control as a person's general perception that the rewards and reinforcement s/he receives is contingent upon his/her behavior and/or personal characteristics. External control, in contrast, involves an individual believing that fate, luck, chance, and/or powerful others are responsible for the rewards, reinforcements, and/or punishments s/he receives than any personal attribute or behavior omitted (Rotter, 1966).

Various researchers who have explored race and locus of control, have generally found that Blacks are more externally than internally controlled (e.g., Battle & Rotter, 1971; Gore & Rotter, 1971). However, internal control is widely considered to be a more positive and healthful attribute than external control, for people in general to possess (DiCindio, Floyd, Wilcox, & McSweeny, 1983). Still, this
view is more at issue when particularly related to Blacks (Hendrix, 1980).

DiCindio et al. (1983) maintain one can infer from the literature that for Whites internal control is a positive characteristic, but on the other hand, external control is a positive attribute for Blacks. Yet, despite what the literature suggests, the notion that external control is more healthy for Blacks is not unanimously agreed upon. Further, the lack of agreement about whether external control is more healthy for Blacks is exemplar of the controversies associated with the research generally focusing on the locus of control variable, as a stress moderator. For example, Johnson and Sarason (1978) state that it is reasonable to expect locus of control to be a significant moderator with internality being the most apt to reduce stress. But, Toves, Schill and Ramaniah (1981) as a result of empirical investigation profess that Johnson and Sarason's (1978) view that internality always mitigates stress is questionable.

Therefore, the role locus of control plays in moderating stress is apparently indeterminate. This is professed to be particularly so with a Black subject population, in view of the questionable value of external control as a stress buffer: recent research findings suggest that a person with an internal locus of control is more apt than one with an external locus of control, to use his/her available support system (Sandler & Lakey, 1982). Unfortunately, the above finding conceivably raises further questions with regard to the roles played by locus of control as well as social support, in modifying Black students' experience of stress in academic environments. Thus,
whether the variables are operative to the same extent in a PWI versus a FBI is currently as indeterminate as the question of whether either serves the Black student population in the capacity of stress moderator.

Therefore, the intent of the present investigation is to examine stress as experienced in two populations of Black students; those attending a predominately White institution and those attending a predominately Black institution. Further, and as important, the impact (or lack thereof) of locus of control and social support in each population will be assessed. This investigation is deemed important because the debilitative effects of stress are widely attested to and empirically supported (Kessler, 1979). Thus, it seems necessary to determine the magnitude of stress experienced by Black students and even more important to ascertain if purported stress moderators (locus of control, social support) are operative and effective for them regardless of the type of educational institution attended.
A major intent of this literature review is to focus on studies which have been concerned, to some extent, with stress and Black college students in predominantly White and/or predominantly Black institutions. As previously noted, stress herein is defined relationally in terms of person-environment interaction. Therefore, race and academic environment are pertinent variables to be attended to.

Also, an overview of relevant literature on social support and locus of control is included to illustrate how these purported stress moderator variables may affect the stress experienced by Black college students. A problem, however, is the paucity of studies which have included a sample of Black college students to examine the relationship between stress, social support and/or locus of control. Thus, a few studies are examined which are considered, by the investigator, to be relevant and exemplar of the state of the literature, with regard to social support and locus of control as moderator or "buffer" variables of stress. Moreover, inferences are drawn, as deemed applicable, from the studies examined to the Black college student population.
The outline for this review thus involves: (1) an examination of relevant literature on stress and Black students in predominately Black and/or White institutions; (2) a preview of the literature on stress and social support as a moderator variable, (3) the role of locus of control in mediating stress; and (4) a restatement of the general purposes of the present investigation.

Black Students In Predominately Black And/Or White Colleges

Since the early 1960's Black students have been increasing their presence on predominantly White campuses throughout the United States. In 1967, Bressler viewed the integration of colleges as a worthwhile experience for all those who so matriculated. He described the experience as "an opportunity for fruitful coexistence". Unfortunately, Black students have not consistently viewed their situations on White campuses in such a favorable light (Scully, 1975). Consequently, much of the literature on Blacks in majority race institutions portrays a dismal if not distorted picture of the Black experience therein.

An early example is a study conducted by Vittenson (1967). He was perhaps one of the first researchers to examine the Black experience in predominantly White college settings. Upon concerning himself with the expressed problems of Black males and females of freshman and senior status, he found essentially no differences in the types of problems they reported. This finding may imply that during that time at that particular college Black students' adjustment to the environment did not improve with years of matriculation. According to
Insel and Moos (1974) environments are instrumental in the process of facilitating or inhibiting adaptation and coping behaviors. However, the extent to which specific environmental factors served to inhibit the adaptation of the Black students studied by Vittenson (1967) was not explored.

Spaights (1975) professes "the presence of Black students on White campuses is a challenge to the established practices of most universities (p. 2)". Spaights (1975) argues that combining Black and White students on a campus without attitudinal preparation and the provision of adequate supportive services is detrimental to the Black college student population. He further maintains that these students can be easily isolated, either through choice or by becoming victims of White indifference. White (1976) is somewhat in concurrence with Spaights (1975). He contends that many predominately White universities operate by the mistaken presumption that all students are alike, have similar learning styles and thus believe culture can be ignored. He continues by stating that the predominant school life on such campuses consequently excludes a portion of the institution's population in its culture. His allusion is to Black students and their culture, the population White (1976) contends needs to be included the most.

Some support is given to the convictions of Spaights (1975) and White (1976) by the findings of an investigation implemented by Scott (1978). Scott (1978) was interested in college climate as perceived by Black and White students at a predominantly White mid-western university. He found that Blacks and White females, respectively,
were more negatively affected by conditions extant at the university as compared to White males. In other words, the college environment was most appeasing to White males and least for Black students in general.

Similarly, Scully (1975) states that Black college students in White academic settings are pressed with a need to "struggle" for a relevant social and physical environment. Moreover, his study of the problems Black students on a majority White campus encounter prompted his assertion that stress is an explanatory concept for understanding the behavior and problems of the Black students in his sample.

Baird (1974) conducted a survey to determine the nature of Black graduate and professional students' experiences in comparison to their White colleagues. He acquired a sample of Black and White students from several colleges and universities. Included in Baird's (1974) survey were questions addressing several areas of the students' graduate and professional school experience (e.g., general departmental atmosphere, and personal reactions to and opinions of graduate or professional school). Baird (1974) with reference to the general departmental atmosphere, found that more Whites than Blacks felt their departments provided a liberal environment. Also, in the area of faculty-student relations, Black students reportedly expressed feelings of remoteness from their professors in contrast to that expressed by White students. More specifically, Blacks described their professors as less friendly, less accessible, less respectful of them, and less likely to treat them as adults.
A similar study was implemented by Pfeifer and Schneider (1974) utilizing an undergraduate population. The investigators sought to ascertain whether there were intrainstitutional differences in perceived university climate for Black and White students enrolled in a large mid-atlantic predominantly White university. Pfeifer and Schneider (1974) had the students (138 Black; 550 White) respond to a university climate questionnaire. Their results indicated that the dimensions of university climate differed for Black and White students. Black students consistently perceived the university as more aversive than their White peers.

Concerned about the quantity and quality of research on Black students at White institutions, Noel and Burback (1978) maintain that considerably more needs to be known about the matter. Their means of addressing the problem was to examine differential perceptions of Black college students in a predominantly White institution (FWI) versus a predominantly Black institution (PBI). Noel and Burback (1978) administered an adapted version of Waterman's College Perceptions Questionnaire to 174 Black students attending either type of college. They found that the Black college was perceived as more supportive and congenial in atmosphere, while the FWI was perceived as more rigorous yet less emotionally satisfying to the Black students matriculating there.

Wright (1978) studied the problems of Black women enrolled in a predominantly White coeducational university. She obtained a random sample of 120 Black females who were ultimately interviewed by Black female interviewers. The interviewers inquired about factors in the
university environment which had caused problems for the Black females being interviewed. Wright's (1978) results indicated that academics, finances, men, health, social activities and the elimination of discrimination were the most problematic areas of concern for the group. She explained that the females' reported health complaints of migraine headaches, depression, and exhaustion were possibly the cumulative effects of the many problems encountered by Black females on a predominantly White campus. Wright (1978) generally concluded that the communicated concerns of the subjects in her investigation indicate that they function in a stressful environment. Like others, Wright (1978) maintains that the F.W.I is more stressful for Black students than their White peers, largely as a consequence of complicating factors of racism and culture.

Valdez (1982) sought to determine the amount of stress extant in the lives of graduate level students. He hypothesized that there would be a notable number of crises experienced by the target group of students by virtue of the demands placed on them. Valdez (1982) used a sample of 40 graduate students, with five being Black students. Contrary to what was expected, no differences were found between the Black and White students in the magnitude of stress reported, as measured by the Holmes and Rahe Social Readjustment Scale. However, Valdez (1982) reported finding support for his hypothesis that a high level of stress would be reported by the graduate students in general. Nevertheless, one apparent shortcoming of Valdez's (1982) research is the small number of Blacks present in his sample.
An important element which is evidently absent from the literature on Blacks in White universities, as pointed out by Scully (1975), is information on the adaptation process of the students to these purportedly "hostile environments". In other words, what are potential "tools" for Black students in FWI's to use as moderators of their asserted stressful encounters in the aforementioned settings? Fleming (1981) notes that the college years are crucial years of development for any students, and that the nature of the college environment influences that development. If adaptation to or effective coping with the elements inherent in such environments does not occur, detrimental affects are likely to be incurred.

Some of the literature reviewed thus far has depicted the potential ill effects, for example, Wright's (1978) finding of predominant health problems of migraine headaches and depression among Black females at a PWI. According to Edmunds (1984) ignorance about the specific environmental factors that impact on Black students negates the acquisition of a complete understanding of their concerns.

Fleming (1981) sought to ascertain different sources of stress for Black college students enrolled in one of two urban universities. One setting was a PWI the other a FBI. She found that academic stress was prevalent in the disclosures of Blacks from both institutions. However, Blacks from the PWI reported more interpersonal stress. These findings are consistent with the contentions of Moyer and Motta (1982) and Wright (1978) who concur that Blacks have more alienating and consequential stressful experiences than their White counterparts in FWI's. Still, there is a need for researchers to examine not only
the amount of stress encountered by these students on such campuses, but also investigate what they do to cope or adapt, as previously noted.

**Social Support As A Moderator Of Stress**

Current research interest in the area of social support is substantial. Of particular interest to many researchers, is the role social support plays in moderating an individual's experience of stress. A common assumption made by investigators who have empirically examined social support and stress is, that individuals who perceive that supportive persons would be available if needed will not be as stressed as those who do not share that perception (Warheit, Vega, Shemizu & Meinhardt, 1982). As anticipated, various researchers have found that social support does serve as a "buffer" of stress (e.g., Cobbs, 1976; Nuckolls, Cassel, & Kaplan, 1972; Turner, 1981).

Turner (1981) studied the relationship between social support and psychological well being in four ethnically diverse populations (Whites, Blacks, Hispanics, & Indians). Consequently, he found a modest but reliable association between social support and psychological health within each of the four examined target groups. Goplerud (1980) sought to determine the extent to which social support affected the stress experienced by first year graduate students. A major finding in his study, is the frequency with which a student interacted with faculty members during the first few weeks of school significantly reduced the probability of his/her encountering aggravated or prolonged stress. Goplerud (1980) therefore maintained
his results are indicative that social support may serve as a mediator of life disturbances.

Also using a student population Sarason (1981) manipulated level of social support in a series of three investigations. His subject population consisted of college students who differed in their experience of test anxiety. He consistently found that a subject high in test anxiety performed better on an anagram task if s/he was a member of the group which received social support; either from peers or from the experimenters, in the form of positive regard. Sarason (1981) related his findings to the notion that social support facilitates coping with stress. Anxiety was defined by Sarson (1981) as being an internalized self-preoccupation with being stressed by a perceived insurmountable external demand.

More credence was given to the notion that social support has a buffering affect on stress by a study implemented by Wilcox (1981). Wilcox (1981) empirically tested the buffering hypothesis, which states that social support mediates the relationship between life stress and psychological distress, using two measures of social support. One measure was a qualitative measure, the other assessed the number of supports an individual believed to be to his/her avail, if needed. Wilcox's (1981) results were interpreted as evidencing clear support for the buffering hypothesis, with quality of support versus number of supports being more important in the buffering relationship between life stress and psychological distress.

Empirical inquiries into the importance of social support in mediating stress have not consistently yielded corroborative results.
For example, Andrews, Tennant, Hewson and Vaillant (1978) failed to find support for the buffering hypothesis. More recently, Ganellen and Blaney (1984) administered the Life Experiences Survey, the Levenson Locus of Control Scale, The Alienation Test, The Social Perception Questionnaire and the Beck Depression Inventory to 83 college students. One major intention of the researchers was to determine if social support plays an important role in buffering the effects of life stress. Their results did not yield a significant interaction between social support and life stress. Consequently, Ganellen and Blaney (1984) suggest that social support does not have a buffering effect for stress.

Some researchers who readily attest to the value of social support as a moderator of life stress (e.g., Wilcox, 1981), maintain that a possible reason for the mixed results, with regard to social support, may involve a difficulty with instrumentation. Moreover, it has been noted that various investigators have developed social support instruments solely for their particular research projects (Warhut, Vega, Shimizu, & Meinhardt, 1982). Therefore, there are few reliable measures of social support.

Another problem with the literature on social support is the deficient number of investigations applying the concept to Blacks and stress. Too few researchers, when studying social support and stress, have included a sample of Blacks in their subject population. Stewart (1983) examined ethnicity and social support using college students from a mid-size mid-western university. She found that social support resources, social support perceptions and network orientations of
Black and White subjects did not differ significantly. Her results may therefore imply that the role social support plays in potentially buffering the stress experienced by Black college students may mirror that of the majority culture students. However, her study did not directly address that issue.

McAdoo (1982) investigated the stress buffering nature of the Black family. She described the Black family as perennially being a stress absorbing form of support for Blacks, a thesis which was supported by her study as well as being consistent with historical belief. Nevertheless, her investigation has few implications for the relationship between stress and social support for Black college students at F WI's. Although the family may still serve as an important source of support for Black college students, support persons with more proximity may also be necessary to nurture the purported stress buffering potential of social support.

Despite the inconsistencies in the literature regarding social support's stress mediating potential, evidence does suggest that on some occasions the notion has been given credence by empirical tests. Because Blacks are considered a highly stressed population (Mack, 1980), more research examining the relationship between stress and social support with Blacks would be a valid endeavor. Further, research conducted, as the present investigation was so intended, to examine that relationship with a Black college student population is also deemed useful, especially given the paucity of relevant literature currently available.
Locus Of Control And Stress

The construct of internality - externality distributes persons on a continuum which reflects the extent to which they associate the positive and/or negative events that occur in their lives with their personal behaviors and characteristics or attribute those events to forces outside their control (Gore & Rotter, 1971). Rotter (1966) states that theoretically internality should be associated with good adjustment in this culture. Externality, on the other hand, he purports should involve a negative relationship with adjustment. Mischel (1976) essentially concurs with Rotter by suggesting that an individual's stress level is influenced by the extent to which s/he can control "stress stimuli". Thus, by implication the better adjusted individual is theoretically more internally than externally controlled. More recently, Schmidt (1983) states that the psychological concept of control involves the perceived or actual efficacy of functioning in the environment.

According to Averill (1973) assumptions such as those made by the aforementioned theorists are almost axiomatic. However, consequential to a critical review of the literature, Averill (1973) maintains that internality is not necessarily positively associated with low stress. Therefore, the extent to which locus of control mediates stress experienced by an individual is at issue. Recent investigations with limited consistency in their reported findings continue to support Averill's (1973) contention (e.g., Ganellen & Blaney, 1984; Parkes, 1984; Sandler & Lakey, 1982; Schmidt, 1983).
The issue of the role locus of control plays in the mediation of stress for Blacks is even more pronounced than for the population at large. Most of the early literature which examined Blacks and locus of control suggested that Blacks are generally externally controlled, particularly in comparison to Whites (DiCindio, Floyd, Wilcox & McSweney, 1983). In regards to stress, Taylor (1981) maintains that Blacks who are external, thus lack belief in their ability to manipulate the environment, are less likely than others to cope with events that occur in their lives. Still, Lao (1970) notes that a Black individual's belief in internal control is not always adaptive. She states that Black college students who can focus on "system obstacles" (e.g., societal barriers and racial discrimination) seemingly assess their life situations more realistically than more internally controlled Black college students.

Contentions similar to those of Lao (1970) have lead some investigators to assume that for Whites an internal locus of control is a stress moderator, but an external locus of control is more adaptive for Blacks. Other investigators have continued to examine internality as a "universal" moderator of stress.

Unfortunately, few if any, investigators have chosen to extend the literature on the role locus of control plays relevant to stress in the life of a Black college student. An interesting finding obtained by Toves, Schill and Ramaniah (1981) is that internality and stress were significantly related only for the males in their subject population. However, the investigators failed to describe the racial make-up of their sample leaving it difficult to draw inferences for
the Black college student population. Nevertheless, the study did illustrate that internality as previously stated may not be a stress buffering factor for everyone. More evidently needs to be done with regard to the Black college student population before any valid conclusions can be drawn about them and the relationship between internality - externality and stress. The current investigation is an attempt to provide more empirical data on this subject. Other intentions of this study are to examine the relationships among academic environment, social support and stress, for a Black college student population.
CHAPTER III

METHOD

This investigation was designed to examine the magnitude of perceived psychological stress as reportedly experienced by Black college students attending a predominantly Black institution (PBI) versus a predominantly White institution (FWI). Further, this study was intended to ascertain whether the variables locus of control and social support serve as stress moderators for the target population in either environment.

Research Expectancies And Hypotheses

Based upon the existing literature, it was expected that Black college students attending institutions of comparable size but differing in racial composition would evince notable differences in reported stress experiences. It was also expected that the variable, social support would have an affect on the stress experiences associated with the life events of students in the aforementioned college environments. Social support was examined in terms of availability of supports and satisfaction with those supports. Both aspects of social support were expected to affect stress experiences as reported by the students.
Because of the questionable nature of locus of control as a modifier of stress for Blacks, in particular, it was expected to play a lesser role in comparison to social support in modifying Black students' reported experience of stress. The research hypotheses which were tested in this study are as follows:

(1) Blacks in the FWI will report a higher level of stress than Blacks in the FBI.

(2) There will be a negative relationship between the students' reported level of social support and reported level of stress.

(3) For Black students social support availability and satisfaction will be more predictive of stress than locus of control will be.

(4) Blacks attending the FBI will report more available and satisfying social supports than Black students attending the FWI.

Subjects

The subjects used in this investigation were 76 Black and 24 White college students. They were males and females age range 19 to 30. All college classifications were represented (25 freshmen; 28 sophomore; 19 juniors; 10 seniors; 18 unknown). The subjects were solicited on a volunteer basis from one of two institutions. One college was a FBI the other was a FWI. The colleges were small, close in proximity and located in the Mid-Western region of the U.S.
Measures

There were three measures used in this study. One measure was of stress as assessed by the Psychological Distress Inventory developed by Lustman, Sowa and O'Hara (1984). The other instruments used were the Social Support Questionnaire developed by Sarason, Levine, Basham, and Sarason (1983) and the Reid-Ware Three - Factor Internal - External Scale (1974).

The Psychological Distress Inventory (PDI)

The PDI was designed by Lustman et al. (1984) specifically to assess life stress in college students. Male and female undergraduate and graduate students participated as subjects in the development of this inventory. It is comprised of 50 items associated with events which were found by Lustman et al. (1984) to occur with some degree of regularity during college life. Its focus is on those events typically perceived as aversive by college students. In the instructions, the respondents are asked to circle each number which signifies an event they have experienced in the past 12 months. Subsequently, the respondents are asked to rate the level of aversiveness they experience for each applicable event (A copy of the instrument is provided in Appendix A).

The 50 items included in the PDI make up four separate scales: A 20-item depression scale; a 19-item anxiety scale; a 17-item somatic discomfort scale; and a 20-item stress scale. A respondent is given a separate score for each scale by adding the aversive ratings of the circled numbered items corresponding to the scale of interest. There
is a minimal degree of overlap among the scales but not sufficient to warrant combining any of them (Lustman, et al., 1984). For the purposes of this study only the stress scale was examined. The maximum score a subject could obtain on it is 100.

Lustman et al. (1984) obtained reliability estimates on the PDI by utilizing split-half and test-retest methods. The reported correlation coefficients for test-retest (at a 6-week time interval) and internal consistency, for the stress scale of the PDI, are .80 and .64 respectively.

Construct validity of the PDI is attested to by Lustman et al (1984) as a function of the high correlations obtained between each PDI scale and "stress-related" dependent measures (i.e., Beck Depression Inventory, State-Trait Anxiety Inventory). Demonstratively, the correlation reported between the Life Stress Questionnaire and the PDI stress scale is .74.

The Social Support Questionnaire (SSQ)

The SSQ developed by Sarason, Levine, Basham and Sarason (1983) is the end product of a series of investigations, wherein the researchers incorporated the use of several hundred students. It was designed to ascertain the number of available supports (people) a person has. Additionally, there is an assessment of the respondent's degree of satisfaction with his/her reported available supports. Thus, scoring the instrument involves computing 2 separate scores for an individual. One score for his/her perceived available supports and the other to represent the respondent's reported satisfaction with the
disclosed supports.

The SSQ is comprised of 27 items. Each item elicits a two-part response. The items describe particular circumstances and inquire about who the respondent feels would be available to assist him/her. In part two of the question, the respondent is asked to rate the degree of satisfaction s/he associates with those supports mentioned (the instrument is provided in Appendix B). According to Sarason et al. (1983) the number (N) score for each item is equal to the number of support persons written in the spaces provided. The satisfaction (S) score is the rated degree of satisfaction ranging from 1 - "Very dissatisfied" to 6 - "Very satisfied". The final N and S scores are computed by dividing the sum total N or S across items by 27, the number of items in the questionnaire. The highest possible N score is 9 that for S is 6.

Factor analyses were performed separately for both the support availability and support satisfaction portions of the SSQ. Sarason et al. (1983) reported first (unrotated) factors of N and S scores as accounting for 82 and 72 percent of the variance respectively. Because the computed correlations between SSQN and SSQS was .34, the researchers argued that the results supported the notion of N and S representing separate dimensions of the general concept social support.

Test-retest reliability, with one month interval, for a sample of 105 college students was .90 for the N score and .83 for the S score. Additionally, high internal consistency was reported to exist among the SSQ test items. Illustratively, the reported alpha coefficient of
internal reliability for the N and S scores respectively were .97 and .94.

No specific data was reported with regard to the validity of the SSQ. Sarason et al. (1983) did however obtain correlational information about the instrument and its relationship with other potentially related personality variables (e.g., extroversion, optimism). Consequently they maintain that the SSQ is useful when viewing correlations between it and measures of extroversion, as an example, in "sketching the personalities (of persons) differing in social support" (p. 132).

Reid-Ware Three Factor Internal-External Scale

Locus of control was operationalized by the Reid-Ware Three Factor I-E Scale developed by Reid and Ware (1974). The questionnaire is forced choice in nature containing 45 items, 13 of which are filler items. It is comprised of the following three factors: self-control, social systems control, and fatalism. Reid (personal communication, 1985) maintains that the scale is an extension and refinement of Rotter's (1966) classic I-E Measure. The extension is with the addition of the self control scale. The self control scale (8-items) measures an individual's impulses, desires and emotions. The social system control and fatalism scales (both 12-items), measure the degree to which a person believes s/he is controlled by powerful others in society and the extent to which a person believes s/he is at the mercy of fate, luck or fortune (Reid and Ware, 1974).
In scoring the survey a value of one is assigned to each item circled by a respondent that is designated an external response. The self control, social system control, and fatalism subscales have maximum scores of 8, 12, and 12 respectively. Combined scale scores are also possible via summing the scores across the 3 subscales (see Appendix C for survey). Because a number of investigators (Gurin, Gurin, Lao and Beattie, 1969; Mirels, 1970; Sanger and Alker, 1972) suggest that I-E is a multidimensional construct, combined scores were not used in this study.

Various research investigations have yielded results which attest to the validity of the separate factors included in the Reid-Ware scale (Abramowitz, 1973; Reid, 1972; Reid and Ware, 1974). Reid & Ware (1974) reported that the social system control and fatalism scales measure a response domain very similar to that assessed by the Rotter I-E instrument. Additionally, they report a test-retest reliability coefficient of .76 for their scale.

This particular I-E scale was used in this study largely because of the social system control subscale. Often in the literature, in reference to Blacks and locus of control, it has been implied that external Blacks tend to "Blame the System" other than themselves for their failures (OGBU, 1981). Thus it seemed purposeful to examine the nature of influence belief in socio-political powerlessness, in addition to fatalism and lack of self-control, have on stress as reported by a population of Black college students.
Procedure

The experimenter wrote letters to the appropriate person(s) at the colleges from which subjects were solicited. The letters essentially requested permission to use a sample of the respective institution's student population in this research project and was accompanied by a copy of the methodology section of the research proposal. Further, the persons contacted were assured of the anonymity of their institutions upon completion of the project.

Upon receiving approval from two comparable colleges (one predominantly White, the other predominantly Black) contact persons at those institutions assisted the experimenter with securing a time and place to meet with students who voluntarily participated in this investigation. At the FWI the investigator met with 29 Black students who were members of a student organization. Also, at the same institution, 27 White students (used as the comparison group) enrolled in an introductory sociology course served as subjects. At the HBI, 55 subjects were solicited from an introductory psychology course, with the permission of the Instructor. No subjects were given course credit or monetary rewards for their participation.

During the implementation phase, combining the 2 experimental groups and the comparison group, 111 students were administered the questionnaire used by the experimenter. Each group was: given a brief introduction to the study (see Appendix D); administered consent to participate forms; and administered the 3 instruments (PDI, SSQ, and Reid-Ware Scale). Table 1 depicts the make-up of the two experimental groups of Black students and the comparison group of White students by
sex and attended institution. Following their participation, subjects were informed of the actual concepts which were principal to the investigation.

Table 1

Number of Subjects in Experimental and Comparison Groups by Gender and Environment

<table>
<thead>
<tr>
<th>Gender/Environment</th>
<th>Experimental (Black)</th>
<th>Comparison (White)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Females</td>
<td>25</td>
<td>14</td>
</tr>
</tbody>
</table>

NOTE: Abbreviations

FWI = Predominantly White Institution
FBI = Predominantly Black Institution

N = 100; 11 Subjects were dropped from the data analyses because of incompletely information.

Statistical Analyses

There were three general predictor variables used in this investigation; academic environment defined in terms of racial composition (predominantly White vs. predominantly Black); social support examined with regard to availability and satisfaction; and 3
factors of locus of control, fatalism, social systems control and self control. Stress was the dependent variable (DV).

Several analyses were performed on the data in order to test the hypotheses. Primarily correlational analyses, simultaneous and stepwise multiple regression, in particular, were done to ascertain the collective and separate contributions of the IV's (academic environment, locus of control, and social support) to the variation of the DV, stress. Additionally, means and standard deviations were computed for the stress and social support variables. Subsequently, comparisons were made between each experimental group and the comparison group for the aforementioned variables. For additional information on the social support variable, a chi-square categorical analysis was done to determine if the two experimental groups differed in the types of supports reported. Finally, t-tests were done by group on stress and each locus of control variable to assess whether there were notable relationships between the variables and/or the two groups of Black students.
CHAPTER IV
RESULTS

Several analyses were executed to examine the data collected in this investigation. Three analysis of variance (ANOVA) procedures were performed. One ANOVA was performed on each of the following dependent variables: stress, as measured by the Psychological Distress Inventory (PDI); social support availability (SSA) and social support satisfaction (SSS), as measured by the Social Support Questionnaire (SSQ). In each of these analyses group was the independent variable.

The purpose of the ANOVA procedures was to ascertain differences between the three different groups used in this study on the named dependent variables. The three groups used were: Black students enrolled in a predominantly White institution (FWI); Black students enrolled in a predominantly Black institution (FBI); and a comparison group of White students from the predominantly White college. To determine the variability within and between the groups on the stress, SSA, and SSS variables, means and standard deviations were obtained. Also, a categorical chi-square analysis was done to ascertain the type of support most often reported by either or both the experimental groups (Black students in the FWI vs. FBI).
It was primary to this investigation to assess the predictive power of certain variables for stress on a collective as well as individual basis. Consequently, simultaneous and stepwise multiple regression procedures were performed on stress as the dependent variable, while SSA, SSS, group, fatalism, self control, and social system control were the predictor variables to be entered into the regression equations. Fatalism, self control, and social system control were measured by the Reid-Ware 3-Factor Locus of Control Scale.

In order to assess whether there were differences between the two groups of Black students on the locus of control factors (fatalism, self control, social system control), t-tests were executed. One t-test was done on each of the 3 locus of control factors and the group variable. A final analysis involved computations of correlation coefficients for all the aforementioned dependent variables, with the addition of a race variable.

The results of the above analyses are presented in the following order: primarily the group means and standard deviations in addition to the results of the ANOVA's on the stress and social support variables are addressed; then the findings with regard to the categorical chi-square analysis on the type of support reported by the two experimental groups are presented. Next, the results of the two correlational analyses on the stress and predictor variables, and the t-test on the locus of control factors are reported. Finally, there is an explanation of the correlation coefficients computed for seven variables.
Table 2 summarizes the means and standard deviations (SD) on the stress and social support variables for each of the groups. It appears that the experimental group of Black students from the FBI exhibits the largest stress mean ($\bar{x} = 24.00$), followed by the group of Blacks at the FWI ($\bar{x} = 21.14$), and the White students ($\bar{x} = 18.46$). As can be gleaned from Table 2, there was a high degree of variability

**Table 2**

Means and Standard Deviations for the Groups on the Stress, and Social Support Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>FBI Group $N = 47$</th>
<th>FWI Group $N = 29$</th>
<th>Comparison Group $N = 24$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>24.00</td>
<td>21.14</td>
<td>18.46</td>
</tr>
<tr>
<td>SSA</td>
<td>2.66</td>
<td>3.27</td>
<td>3.42</td>
</tr>
<tr>
<td>SSS</td>
<td>5.24</td>
<td>5.02</td>
<td>4.77</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>13.02</td>
<td>16.13</td>
<td>12.83</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.23</td>
<td>1.11</td>
<td>0.80</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.70</td>
<td>0.67</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Note: Abbreviations

SSA = Social Support Availability

SSS = Social Support Satisfaction
in the stress scores within each group. Notably, Black students in
the FWI evidences the greatest degree of variability (SD = 16.13) in
comparison to the other groups reported in the table.

The results of the ANOVA performed on the stress and group
variables indicated that there was no significant difference in the
amount of stress reported by the two experimental groups comprised of
Black students and the comparison group of White students (see Table
3). Although there were no significant differences between the groups
on the stress variable, the examination of the means and SD's within
the separate groups evidenced noteworthy variability, as previously
mentioned.

Table 3
Summary of Analyses of Variance
for Ratings of Stress and Social Support

----------------------------------------
<table>
<thead>
<tr>
<th>Source</th>
<th>Stress df</th>
<th>SSA SS</th>
<th>SSA F</th>
<th>SSS SS</th>
<th>SSS F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2 508.03</td>
<td>1.31</td>
<td>11.87</td>
<td>4.62**</td>
<td>3.51</td>
</tr>
</tbody>
</table>
----------------------------------------

**p < .01
*p < .05

NOTE: Abbreviations:
SSA = Social Support Availability
SSS = Social Support Satisfaction
The ANOVA's done on the SSA and SSS variables by group did yield significant F values, as shown in Table 3. These findings indicated that at least two groups differed in their perceptions of available support persons and satisfaction with those supports.

Because of the significant F values for the SSA and SSS variables, the Newman Keuls, post hoc procedure was utilized to ascertain which specific pair-wise comparisons accounted for the significant effects of the two social support variables. One set of post hoc analyses showed that for the SSA variable the experimental group of Black students from the PWI and the group of White students from the same college reported significantly greater numbers of available support persons ($\bar{x} = 3.3$ and $3.4$, respectively) than the Black students from the predominantly Black institution ($\bar{x} = 2.7$, $p < .05$). For the SSS variable, the Newman Keuls procedure indicated that the Blacks at the FBI did not differ from the group of Black students from the PWI ($\bar{x} = 5.2$ and $5.0$, respectively). However, the Black students at the FBI reported significantly more satisfaction with the perceived available supports than the White comparison group ($\bar{x} = 4.8$, $p < .05$). Thus, according to the results of the Newman Keuls procedure, although Blacks at the PWI reported more available supports than Blacks at the FBI, Blacks at the FBI were more satisfied with their available supports than the comparison group; but they did not differ significantly on SSS from Blacks at the PWI.

Continuing to examine differences between the experimental groups on the social support variable, a categorical chi-square analysis was done to determine if either group tended to report school related
support persons (e.g., counselor, advisor) versus non-school related support persons (e.g., family members) with greater frequency than the other. Table 4 is descriptive of the patterns evident in both groups, by indicating the frequencies and percentages of the type of supports reported, contrasting school related and non-school related support. The table shows that both groups had essentially the same trend of reporting available supports. Non-school related support was predominant in both groups.

An important intent of this study was to assess the extent to which variables pertaining to social support, locus of control and academic environment accounted for significant portions of the variance in stress as reported by Black college students. Thus, the correlational analyses executed for the collected data are particularly relevant to this investigation. Accordingly, simultaneous and stepwise regression procedures were executed. First examining the results of the simultaneous regression with stress as the dependent variable (DV), while SSA, SSS, group, and the 3 locus of control factors (fatalism, self control, and social system control), were the independent variables (IV) entered into the equation, a significant F value was not found. As shown in Table 5, all of the IV's in combination only accounted for 11% of the variance in stress, the DV.
Table 4
Group by Type of Support Response Frequencies

<table>
<thead>
<tr>
<th>Type of Support</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>School/Non-School</td>
<td>School/Non-School</td>
</tr>
<tr>
<td>Group N</td>
<td>Related Related</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FWI</th>
<th>29</th>
<th>9</th>
<th>20</th>
<th>31.03</th>
<th>68.97</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBI</td>
<td>47</td>
<td>10</td>
<td>37</td>
<td>21.28</td>
<td>78.72</td>
</tr>
</tbody>
</table>

NOTE: Abbreviations
FWI = Predominantly White Institution
FBI = Predominantly Black Institution

Upon examining the results of the stepwise regression analysis, significance was found only for the IV, SSA. The stepwise regression analysis had an alpha level set at .05. If a variable was not significant at the .05 alpha level, it was not entered into the equation. Consequently, the analysis was completed after step one, the entrance of the SSA variable. Table 6 summarizes the major results of the analysis. The table shows that the SSA variable accounted for 9% of the variance in stress, which is only 2% less than the variance in stress explained collectively by the IV's in the general regression model (presented in Table 5).
Table 5

Simultaneous Regression
on Stress and Predictor Variables

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>17116.89</td>
<td>286.15</td>
<td>1.46</td>
<td>.113</td>
</tr>
<tr>
<td>Error</td>
<td>69</td>
<td>15228.36</td>
<td>195.82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Sources of variance included in the model were Social support availability, social support satisfaction, group, fatalism, self control, and social system control.

Table 6

Stepwise Regression
on Stress and Predictor Variables

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>1432.09</td>
<td>1432.09</td>
<td>7.68*</td>
<td>.094</td>
</tr>
<tr>
<td>Error</td>
<td>74</td>
<td>13796.27</td>
<td>186.44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01

NOTE: Only social support availability variable met the .05 significance level for entry into the model.
The t-test utilized in this study were done to examine the locus of control variables (self control, fatalism, social system control) and the two experimental groups of Black students. The intent was to determine if there were differences between the groups on any of the locus of control factors. However, the results did not yield significant differences between the two groups.

Table 7 displays a correlation matrix for the stress, social support and locus of control measures, in addition to the IV, race. The correlations were computed to ascertain

<table>
<thead>
<tr>
<th>Variable</th>
<th>SSA</th>
<th>SSS</th>
<th>FAT</th>
<th>SC</th>
<th>SSC</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>-.3302**</td>
<td>-.1095</td>
<td>-.0262</td>
<td>-.0206</td>
<td>-.0197</td>
<td>-.1365</td>
</tr>
<tr>
<td>SSA</td>
<td>.2111*</td>
<td>-.0468</td>
<td>-.1236</td>
<td>.0276</td>
<td>.1923</td>
<td></td>
</tr>
<tr>
<td>SSS</td>
<td>-.2107*</td>
<td>-.1195</td>
<td>-.0940</td>
<td>-.2294*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAT</td>
<td>.3272**</td>
<td>.3121**</td>
<td>.0399</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>.1995</td>
<td>.2367*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC</td>
<td>.0844</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
**p < .01

NOTE: Abbreviations:
SSA = Social Support Availability
SSS = Social Support Satisfaction
FAT = Fatalism
SC = Self Control
SSC = Social System Control
the direction and magnitude of the relationships between the
aforementioned variables. Noteworthy are the significantly inverse
relationships between stress and SSA \((r = -0.33, p < 0.05)\) and race and
SSS \((r = -0.23, p < 0.05)\). These findings are consistent with earlier
reported ANOVA and consequent post hoc analyses which showed
significant differences between the experimental groups on the social
support availability and social support satisfaction factors.
However, the moderately low correlations should be interpreted with
cautions.
CHAPTER V

DISCUSSION

The overall results of the analyses just reported indicate that stress is not reliably predicted by academic environment (PBI vs. FWI), locus of control (self control, fatalism, social system control), nor social support satisfaction. There is meager indication that social support availability accounts for some of the variance in the sampled Black students' reported stress. Also, there is some indication that Black students in the FWI have a larger number of available supports, while the Black students in the FBI are more satisfied with their reported supports than the comparison group. Nevertheless, the results of the chi-square analysis suggests that the supports reported by both groups of Black students are more often than not family members such as parents, siblings, grandparents, cousins, etc. Therefore, the findings in regard to social support in the academic environments examined are somewhat difficult to interpret for the present sample.

The discussion of particular findings is provided herein in a sequence by variable. Thus, each variable is outlined with regard to associated findings. The explication of findings relevant to the particular variables investigated includes remarks about
corroborative and/or inconsistent literature as deemed appropriate. Additionally, empirical support or the lack thereof for the hypotheses tested in this study is discussed.

Primarily, addressing the stress variable which was central to this study, no support was found for the hypothesis that suggested stress differences between Blacks in the FWI versus Blacks in the FBI. Blacks in the FWI as well as Blacks in the FBI and the White comparison group generally reported an average amount of stress. Illustratively, the various groups' mean scores reported in this study are 24.00, 21.14, and 18.45, for the Blacks in the FBI, the Blacks in the FWI and the White comparison group, respectively.

It should be noted that both groups of Blacks scored above the stress mean reported for the group Lustman, Sowa and O'Hara (1983) normed the PDI on (N = 242, \( \bar{x} = 19.5 \)); while the White comparison group scored below the mean. Moreover, students who gave verbal reports of being highly stressed in a study conducted by Lustman et al. (1983) scored a mean stress level of 24.7 when their stress levels were measured by the PDI. Therefore, there is apparently some question about how "stressed" a student must be to score "high" on the PDI stress scale; particularly because the maximum stress score which can be attained on the scale is 100.

Another noteworthy finding with regard to the stress means reported is that there exists a large degree of variability within the groups, with the greatest variability in stress scores found within the group of Blacks at the FWI. Illustratively, the standard deviations on the stress variable for the Blacks at the FWI, those at
the FBI followed by the White comparison group are 16.13, 13.02, and 12.82, in order. These notably high standard deviations may account for the lack of significant difference in stress scores between groups and for the higher mean being reported by the Blacks at the FBI versus the FWI. This supposition is given some credence by the fact that the variability in stress scores within groups of the present sample is very different from that evident in the group the PDI stress scale was normed on. The norm group's standard deviation among stress scores as reported by Lustman et al. (1983) is 7.8. Therefore the norm group's low standard deviation by comparison to the groups used in this study suggests the former group was more homogeneous. Further, if the groups in the present sample had shown homogeneity similar to that shown by the norm group, then any extant differences between groups would have been more statistically detectable.

However, the higher, although not significantly different, stress scores for Blacks in both academic environments (FWI and FBI) in comparison to the White group of college students is consistent with the literature which indicates that Blacks are a higher stressed group of people (Myers 1976; Wright, 1983). Nevertheless, consistency does not mean this study has provided hard evidence for the contention of Blacks being a more stressed population; especially given there were no significant differences between the groups.

Still examining the statistical analyses associated with the stress variable, the simultaneous and stepwise multiple regression procedures executed in this study warrant attention. The regression analyses were done to test 2 of the 4 hypotheses stated by the
investigator. Those hypotheses are: (1) Blacks in the PWI will report a higher level of stress than Blacks in the FBI; and (2) social support availability and satisfaction are more predictive of stress for Black students than locus of control is. Again, the first hypothesis was not supported. However, there was some support for the second hypothesis via the stepwise multiple regression procedure used.

Addressing the simultaneous multiple regression procedure which tested if stress would vary as a function of academic environment (PWI vs. FBI), locus of control (fatalism, self control, and social system control), and social support (availability and satisfaction), it provided minimal to no support for both the aforementioned hypotheses. This is evident because only 11% of the variance in stress was accounted for with all the variables entered in the regression equation, as was indicated in Table 6.

The stepwise regression procedure which allowed the predictor variables to be entered in the equation at an alpha level of .05, did not yield any support for the first hypothesis. Yet, it provided partial support for the hypothesis which surmised social support would be more predictive of stress in Blacks than locus of control would be. Partial support is maintained because only social support availability (SSA) was a significant predictor ($\alpha < .05$) of stress; thus was the only variable entered in the stepwise regression equation. As was shown in Table 6, the SSA variable accounted for a little better than 9% of the variance in stress as reported by Black college students in this study's sample.
The above results apparently indicate that variables other than those isolated for use in this study are perhaps better predictors of Black college student's stress experience (e.g., performance on tests, GPA, frequency of illness). Still, the ANOVA procedures and computations of correlation coefficients for stress and the other variables (using all 3 groups) used in this investigation, show some evidence that the variables manipulated herein warranted examination. For instance, via the ANOVA analyses significant F values were obtained for both SSA \( (p < .01) \) and social support satisfaction (SSS) \( (p < .05) \) on the group variable. Also, as a result of the correlation computations a significant negative relationship \( (p < .01) \) was found between stress and SSA. The latter finding yielded support for the hypothesis that there would be a negative relationship between social support and stress.

Moreover, the results of the ANOVAs and the correlation computations give credence to the hypothesized stress buffering effect of social support espoused by Johnson and Sarason (1979) among others. Further, the predominant significance of the SSA variable is in accordance with Liberman's (1982) assertion regarding the cogency of SSA in the relationship between social support and stress mitigation. He maintains that the most powerful relationship between social support and stress modification is found in a person's perception that s/he has a reliable and accessible group of support persons; regardless of whether the support persons are used.

A closer look at the social support variables examined in this study evinces interesting differences between the sampled groups as a
function of race and academic environment. Post hoc comparisons were done because of the significant F values found for the social support variables and group in the ANOVA analyses. It was hypothesized that Blacks in the H3I would have more available and satisfying supports than Blacks at the WI. However, contrary to what was hypothesized the post hoc tests revealed that Blacks in the H3I reported fewer available supports than the Black and White students in the WI. The test also evinced that Blacks in the H3I reported a higher level of satisfaction with their available supports than Blacks in the WI. Further, they reported a significantly higher level of satisfaction than the comparison group. A significant negative correlation between SSS and race (reported in Table 7) corroborates the latter finding.

The foregoing discussion of the findings concerning the SSA and SSS variables indicate that this study's results are inconsistent with the literature describing the environment on predominantly White campuses as being "hostile" for Black students (e.g., Smith, 1981). However, the finding, via a chi-square categorical analysis (see Table 4) that all students regardless of the type of institution attended reported essentially the same type of non-school related support persons (e.g., mother, brother, sister), precludes conclusions being drawn about the quantity and/or quality of support for Black students at the studied colleges.

Lastly, with regard to the social support variables, a significant negative correlation was found between social support satisfaction and fatalism ($p < .05$). This suggests that a high fatalism score was associated with low social support satisfaction for
the population sampled. The finding is consistent with the contentions of Ganellen and Blaney (1984) and Sandler and Lakey (1982) who profess that personality and social support are correlated.

Further examining fatalism and the other locus of control variables (social system control and self control), the executed t-tests failed to show any significant differences between the two groups of Black students on any of the three locus of control variables. However, upon examining correlations between the locus of control and other variables, in addition to the previously noted relationship between fatalism and SSS, a significant negative correlation was found between race and self control. Due to this incidental finding a post hoc analysis of the means for each group on the self control variable was performed. The analysis indicated that Blacks in different environments did not significantly differ but, the White comparison group reported significantly less self control than either group of Blacks. The means were 5.00, 4.15, and 3.28, respectively for the Blacks in the FWI, those in the FBI, and the White comparison group (note that self control is scored in the external direction). This suggests that the Black students reported having more control over their impulses, desires and emotions than the White students reported. Such is inconsistent with the literature reviewed by Hendrix (1980) which portrays Blacks as generally being more external than Whites. However, Rotter's (1966) I-E scale is the predominant scale used in the literature and does not measure self-control. Thus this finding may suggest an aspect of internality relevant to Blacks that has been untapped by other scales of I-E which
only measure fatalism and control by powerful others (social system control).

Another plausible explanation of the finding that Blacks in the sample were more internal than Whites on the self control variable is, the comparison group was basically comprised of females (5 males, 19 females). Given that existing literature suggests that females have less emotional and impulse control than males, the question of whether a more mixed group of White students would have yielded different results is an open one.

Limitations

There are several factors inherent in the methodological procedures executed for this study which preclude making any generalizations from its findings. A principal problem was the usage of only two colleges which provided a set of associated limitations.

One problem with using one pair of colleges is it prevented the acquisition of a broad sample of subjects. The small sample size and the unequal number of Ss in the different cells potentially weakened the power of the statistics used in the analyses. Another problem is, even if there were a larger sample size and equal numbers of Ss in all the cells, usage of one pair of colleges still lowered the probability of obtaining a representative sample of Black college students.

A related limitation to the latter one mentioned is that usage of an organization of Black students at the PWI and sampling from an introductory psychology class at the FBI could have resulted in obtaining two different types of students. Perhaps sampling from a
similar pool of students at both colleges would have provided more comparable groups of Black students. It was not possible for the present investigator to implement the above because the sample was obtained strictly on the basis of availability of pool followed by the volunteering of students from the available pool.

Another set of problems is related to the earlier discussed degree of variability of stress scores within the groups. Even though the group members did not provide a homogeneous composition the between group variability was very small which provided a restricted range. More explicitly, the range for between group stress scores was only 6.54 which is an obvious contrast to the noteably high standard deviations reported for within group stress variability. Again, perhaps a larger and more varied sample would have decreased the variability within groups and increased the variability between groups. However, the latter statement presently remains a conjecture.

One last noteworthy limitation of this study is the usage of regression analyses with one pair of colleges, 100 Ss and 6 independent variables. According to Kerlinger and Pedhazur (1973) "the reliability of the results of multiple regression analysis is clearly a major problem with the method (p. 446)". They maintain that using three different samples in three different places affords a very low probability of getting the same pattern of relations among regression coefficients. Thus, the intention is not to say the regression analyses should not have been executed, the point is a wider comparison (usage of more colleges) and consequent replication with the regression statistics would have potentially provided more
generalizable results.

Recommendations For Future Research

Earlier in this writing issues were drawn from the literature concerning whether locus of control and social support serve as stress modifiers for Black college students in a PWI and/or a FBI. The general results derived from this investigation do not provide support for the locus of control variable but there is some support provided for the social support variable. Academic environment did not prove to be an important factor. Thus Blacks in the two environments more often than not tended to respond in a similar fashion. However, in view of the previously discussed limitations of this study, the empirical question of whether there are differences between the groups should not be considered answered.

It is the investigator's contention that there be a replication and extension of this study with the following modifications:

1. A more random sample of Black students with a larger N and the inclusion of more pairs of colleges in different regions.

2. The inclusion of 2 measures of stress, with one measure being Black oriented such as the Black Student Stress Inventory developed by Edmunds (1984). She maintains that there are problems
for Blacks in PWI's which are unique to the Black student population. Thus it is possible that her instrument assesses aspects of stress for Black students not measured by an instrument developed largely for measuring stress in students of the majority population.

3. Analyze the relationship between stress and non-school related supports (e.g., family) versus school related supports (counselor) separately as well as together. Doing the above would allow the investigator to determine if either source of support has a stronger relationship with stress. It would also allow for a comparative discussion of their combined affect on stress.

4. If one intends to further examine locus of control it should be measured in relation to specific stressful episodes similar to that done by Parkes (1984) who studied female nurses. If locus of control is not measured in a more situation specific manner consider not using it as a variable.
5. Consider altering some of the predictor variables used in the regression analyses. For instance, delete the locus of control variable and add GPA, frequency of illness, and/or employment status.

If the stated modifications are incorporated in the methodology of any future studies of this nature, there is reason to believe it would be a valid and worthwhile endeavor. The contention is made in view of the paucity of similar studies extant in the literature; notwithstanding this study's findings as outlined in the foregone discussion.
LIST OF REFERENCES


APPENDIX A

PSYCHOLOGICAL DISTRESS INVENTORY
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

APPENDIX A: 67-71

APPENDIX B: 73-79

APPENDIX C: 81-85
APPENDIX B

SOCIAL SUPPORT QUESTIONNAIRE
APPENDIX C

BELIEF SURVEY
APPENDIX D

INSTRUCTIONS TO SUBJECTS
INSTRUCTIONS TO SUBJECTS

This study is designed to assess the relationship (or the lack thereof) among three aspects of your life experience. Such includes: how you feel about the events that occur in your daily life as a college student; what people you believe are available and helpful to you in resolving any difficulties that may occur in your life as a college student; and to what extent you feel responsible for the positive and/or negative events that have happened to you in the past or that may occur in the future.

The questionnaires will be labeled questionnaire number One through questionnaire number Three. Please respond to them in the order in which they are numbered when you receive them.

Before I administer the questionnaires, you will be given a participation consent form, that must be signed before the study commences. Please feel free to ask questions if anything is currently unclear to you. (Consent forms are handed out and subsequently collected).

(Questionnaires are administered). Please read the instructions at the top of each questionnaire before marking it and signal me if you have a question about what you are being asked to do. Please respond thoughtfully to each of the measures and remember there are no right answers. If at any point in time you wish to discontinue your participation, please feel free to do so. Thank you for your attention.