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THE RELATIONSHIP BETWEEN STRESS FACTORS AND SELF-PERCEIVED ROLES OF BLACK ADMINISTRATORS IN PREDOMINANTLY WHITE PUBLIC FOUR YEAR INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN

Michigan State University PH.D. 1981

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By

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ABSTRACT

THE RELATIONSHIP BETWEEN STRESS FACTORS AND SELF-PERCEIVED ROLES OF BLACK ADMINISTRATORS IN PREDOMINANTLY WHITE PUBLIC FOUR YEAR INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN

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The major purpose of this study was to assess the relationships between stress factors and the self-perceived roles of black administrators in predominantly white public four year institutions of higher education in Michigan. Specifically, this study was aimed at determinations of: (1) the relationship between stress and self-perceived role, (2) the relationships between self-perceived roles and age, marital status, sex, level of education, level of job responsibility, level of income, and length of time in the job, (3) the relationships between stress and age, marital status, sex, level of income, level of education, level of job responsibility, and length of time in the job, (4) the relationships between role conflicts/ambiguities and stress, and (5) the relationship between stress and illness.

The population for this study consisted of the 232 black administrators who were employed in the fifteen four year institutions of higher education during the spring of 1980. The total black administrative population was surveyed and the resulting sample was composed of the 149

black administrators who responded to the survey.

The instrument used in this study was a questionnaire which was construced to gather information about the demographics of the participants, the employing institutions, the self-perceived roles of the participants, and stress and illness data on the participants. The instrument was developed during the course of this study. The principal source influencing the construction of the stress part of the questionnaire was the framework for examining occupational sources of stress that was provided by Cooper and Marshall in 1976. The illness portion of the questionnaire was extracted from a research project conducted by Parker in 1979. Parker developed a series of stress-linked illnesses and behaviors as manifested in physical effects, drug usage, behavioral effects and use of consulting services. The instrument, along with a cover of explanation, was mailed to each of the black administrators in the fifteen public four year institutions of higher education in Michigan. The sample consisted of the 149 black administrators who responded to the questionnaire.

The analysis of data included the use of the one-way analysis of variance, cross tabulation and Chi Square techniques to determine the nature of the relationships specified in the five hypotheses. The 0.05 level of significance was used to analyze the results of the ANOVA procedures and the Chi Square statistics. Additional analysis of the biographical data, stress data, and illness

data relied on descriptive statistics.

The results of this study can be summarized in the following manner:

1. There is no significant difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by black administrators who have low self-perceived role functions.

2. There are relationships between self-perceived role functions of black administrators and the variables of sex, level of job responsibility, level of income and level of education. However, there are no relationships between self-perceived role and age, marital status and length of time in the job.

3. There are relationships between stress and the variables of sex and level of income while there are no relationships between stress and age, marital status, level of education, level of job responsibility, and length of time in the job.

4. There is a significant difference in the amount of stress experienced by black administrators who have high role conflict/ambiguity functions and the amount of stress experienced by black administrators who have low role conflict/ambiguity functions.

5. There is a significant difference in the amount of stress experienced by black administrators who have high illness functions and the amount of stress experienced by

black administrators who have low illness functions.

The importance of this study adds support for the need of the conceptualization, development and implementation of a valid theoretical and practical approach to educating and training black administrators. This study also adds support to the desirability of having departments of higher education and administration address events which significantly affect the effective and efficient performance of their employees.

DEDICATION

To the memory of my dad, Willie Byrd,
whose love was undemanding and perfect.

ACKNOWLEDGMENTS

I am indeed grateful to those who have contributed to the success of this project through their inspiration, love, sacrifice and constant support. Realizing the risk of an oversight, I extend my sincere thanks and appreciation to specific individuals.

A genuine thanks to the members of my doctoral committee, Dr. Van Johnson who served as chairman and to Dr. Stanley Stark and Dr. Louis Romano. A special debt of gratitude is due Dr. Gloria Smith, faculty director of this study. Her assistance, support, guidance and encouragement during my entire doctoral program made this experience more bearable.

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To my mom, Mrs. Marie Byrd, I will be eternally grateful for your pride and faith in me. It has always been a comfort and a source of inspiration for me.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

Stress is an intrinsic part of the condition of being human. A person experiences stress in all aspects of life; however, stress can induce positive as well as negative responses from the individual. Consider an athlete who seemingly plays best when the competition is greatest. The threat of a superior performance from an opponent can cause the athlete to perform at heights that might be unattainable if the opponent were to display lesser skills. Even the excitement and happy reaction which culminates the anticipation of opening a birthday present is also a response to a stressful situation.

While these are considered as positive responses to stress, the more common connotation of stress is in the context of the negative responses which it generates from and within the individual. Generally these responses are evidenced through the effects on the mental and physical being. Studies such as those by Brooks and Mueller (1966) and Dreyfuss and Czackes (1959) have linked stressful situations with changes in various body chemicals and hormones. Other attempts at assessing stressful situations have indicated a

direct linkage between stress and such ailments as increased heart rate (French and Caplan, 1970), high blood pressure (Cassel, 1975; and Harris and Singer, 1968), alcoholism (Rivers, 1977), obesity (Shirom et al., 1973) and the deterioration of mental health (Brooks, 1973; and Kornhauser, 1965; and Kleiner and Parker, 1963).

Gross (1970) views stress as a psychosocial phenomenon--a matter of the relation between the individual and the structure within which he finds himself. Here, stress is related to the interacting factors of an individual's personality and environment. If this basic premise is accepted, it can be surmised that the interplay of race, educational background and other demographic variables has a direct affect on an individual's sensibility, perception and response to the environment. Causes of stress can, therefore, lie either in the individual, in the structural environment, or in an interaction between individual and environmental factors.

Since a large portion of one's waking hours is spent in the work environment, increased attention is being paid to occupational stress. This focus is especially important in a dynamic society such as the United States because the working person must fit into an age of high technology, new expectations, and increasing demands. The federal government evidenced an awareness of the problem of occupational stress when it awarded grants to Steve Sauter, an industrial psychologist (Harper, 1980). The grants,

totaling over a hundred thousand dollars, were for the study and measurement of stress-related symptoms of troubled workers. The symptoms were identified as hand tremors, body sway, reaction time, coordination, concentration and smoking withdrawal affects.

It is also recognized that some occupations are more stress producing than others. Recent newspaper headlines proclaimed, "Police Self-Destruct on Too Much Stress" (Flanigan, 1980). The article related that during the four month period of January 1 to April 25, 1980 four Detroit police officers committed suicide and two others made attempts on their own lives. A police psychologist attributed these actions to the enormous stress that comes with being a policeman. The psychologist further intimated that rates of suicide, divorce and stress-related illnesses such as heart attacks, high blood pressure and alcoholism are much higher for policemen than other professions. It is noteworthy that these same stress-linked health manifestations have also been associated with the pressure-laden professions of medical doctors and dentists.

Administration is also recognized as a highly stressful occupation. A review of the National Institute for Occupational Safety and Health stress research studies in 1977 supports this contention. Over 22,000 health records of workers in 130 occupations were collected and evaluated for incidence of stress-related diseases. These studies revealed that manager/administrator is the occupation category with

the seventh highest incidence of stress-related diseases.

Administrators in public institutions of higher education today face innumerable job stressors, some of which are deadline pressures, demands to initiate innovative programs, evaluations, policy implementations, accountability demands, and adjustment to numerous other variables and concerns which make up the job. Black administrators in predominantly white institutions of higher education face additional pressures that are directly related to race. There is a natural dilemma and irony in being in this position. Black administrators are confronted with the often conflicting demands and expectations of black students, faculty members and fellow administrators. Black students expect black administrators to serve as role models, surrogate parents, buffers, advocates, and sources of continuing psychological support. Black administrators in predominantly white environments are expected to foster a tolerance for diverse and often conflicting judgments while at the same time to serve as stimulating and cohesive forces to help faculty and other administrators understand the position of the black youth. Black administrators must sometimes make use of such intervention strategies as confrontation, negotiation, mediation and disengagement. They must sometimes use the position of employment to serve as cross-cultural bridges and liaisons to effectuate understanding and make working relationships possible. Along with these expectations, black administrators must also keep a constant awareness and perception of their own roles in the

organizational structure. Career development patterns and organizational climate dictate that black administrators must guard against becoming the "sole keeper of minority affairs" to the exclusion of the burning issues in today's academic revolution. Few people are caught in the middle as much as black administrators, particularly if they are sincere in wanting to help black people, in being dedicated employees of the institutions, and in their own personal development patterns. This unique set of responsibilities, expectations and conflicts provide fertile ground for generating stress and its accompanying illnesses and responses.

Interwoven with the sources of stress generated by the work environment is the source of stress which is inherent in each individual. Again, accepting the psychosocial context of stress, it is understandable that individuals, having different personalities, perceive and react to situations in different ways. Individuals' personality characteristics are important considerations in setting the dimensions of work. Both genetic and developmental influences stamp each administrator as unique. Black administrators in predominantly white colleges and universities bring to the educational arena a specific set of mores, customs and cultural influences. These characteristics, when viewed in context with such influences as background, family and environmental structure, affect how they perceive their work roles and respond to stressfulness.

While it is difficult, or perhaps impossible to

isolate causality when dealing with stress, it is possible to show relationships between self-perceived roles, environmental factors, and stressful circumstances. It is within this framework that the impact of stress on black administrators in predominantly white public institutions of higher education in Michigan will be examined. Stress will be assessed by looking at its manifestations in the individual's physical and behavioral operations.

Purpose of the Study

The purpose of this study is to assess the relationships between stress factors and the self-perceived roles of black administrators in predominantly white public four year institutions of higher education in Michigan. This assessment will examine the relationship between stress and the occurrence of stress-related illnesses in this same group.

Specific questions to be explored in this study are:

1. Is there a relationship between stress and the self-perceived role of black administrators?

2. Are there relationships between self-perceived roles and the demographic variables of age, marital status, sex, level of income, level of education, level of job responsibilities, and length of time in the job?

3. Are there relationships between stress and the demographic variables of age, marital status, sex, level of income, level of education, level of job responsibilties, and length of time in the job?

4. Is there a relationship between the amount of role conflicts and ambiguities experienced by black administrators and stress?

5. Is there a relationship between the amount of stress experienced by black administrators and the occurrence of illnesses?

Significance of the Study

The initial framework within which stress was defined emphasized the affect of environmental factors on the human organism. Love (1944) viewed stress as an internal force generated within a solid body by the action of an external force which tends to distort the body. Other writers, including Wolff (1968) and Lazarus (1971) have inferred that the inner state of the individual also contributes to any resulting state of stress. Among these, Selye (1955) postulated that stress is a state of the organism that underlies both its adaptive and maladaptive reactions. Selye's paradigm of the stress response contains four main elements: the antecedent stressor; the mediating factors which increase or decrease the impact of the stressor; the adaptation syndrome which indicates an intervening state of stress in the organism; and the consequent or maladaptive response. For purposes of this study, stress will be viewed in the manner of Selye because it allows for the individualistic, psychological and social nature of stress.

Utilizing this framework of stress, the stressors and

mediating factors can be associated with the race and ethnicity of the individual. The general assumption which accompanies this framework is that race and cultural influences are part of one's intrinsic make-up and thus affect one's determination of what is a stressor as well as the actual mediating factors that affect the individual. Therefore, it is possible to assess particular sources of stress stemming from the individual's race or ethnicity in terms of the likelihood that these antecedent factors will increase or decrease the intensity and the duration of the stress one experiences. Dohrenwend and Dohrenwend (1969) support this premise:

> . . . Another class of stressors is related to the fact that in our society upward mobility is the norm. The progression of ethnic groups over succeeding generations is from positions of lower to positions of higher social status. Within the life span of any given individual, however, the obstacles to such mobility are greater or lesser depending on such characteristics as race and class. (p. 133)

Thus, black administrators working in predominantly white environments will perceive their environment and their roles in those environments in a manner quite different than their white co-workers.

The roles of black administrators in higher education are important not only to the black student but to all students in predominantly white educational institutions as well. Black administrators must possess the skills not only to cope with the normally assigned administrative duties but also with the special demands placed upon them by virtue of their blackness. This study will point up the need for the

conceptualization, development and implementation of a valid theoretical and practical approach for educating and training black administrators. Training opportunities must be developed and revised which will help prepare black administrators for the multiple roles that must be fulfilled ultimately. This study will add support to the desirability of having departments of higher education and administration address events which significantly affect the effective and efficient performance of their employees.

The data and conclusions provided by this study can also be useful to practicing black administrators and all within the institutional hierarchy who work and interact with them. This study will possibly clarify many of the intrinsic and extrinsic variables acting on black administrators and will provide a basis for more cooperation and understanding in the working environment.

The Population and Subjects

The population for this study will consist of two hundred and thirty-two black administrators. The administrators will be those employed by the fifteen four year state controlled institutions of higher education in Michigan. The institutions from which the population will be drawn are all predominantly white, that is, each participating institution has a student body that is at least seventy percent white. The total black administrative population of these institutions will be surveyed. Those persons who respond will

constitute a convenience sample since they will not be randomly selected. The scarcity of black administrators in predominantly white institutions of higher education in Michigan necessitated that the entire population be surveyed. The administrators selected for this study will include all those black persons who holds positions of presidents, vice-presidents, deans, department chairmen, program directors, program coordinators and their assistants.

Procedure

The procedure for gathering data will be to request responses through a mail-in questionnaire. The instrument will contain data about: (1) demographics, (2) the employing institutions, (3) self-perceived role, (4) stress, and (5) illness. Portions of the questionnaire will be developed specifically for this study. The stress portion of the questionnaire will be developed by using the occupational sources of stress compiled by Cooper and Marshall (1976). The format for the illness portion of the questionnaire will be adapted from part of an instrument developed by Parker (1979). Parker compiled a list of stress-linked illnesses and behaviors based on a careful review of the literature. The questionnaire will consist of fixed-alternative, open-end, and Likert type items. The questionnaire will be pretested and refined before it is mailed to the study participants.

Delimitations of the Study

This research is concerned with a population of black administrators in the four year predominantly white

public institutions of higher education in the state of Michigan. The race and ethnicity of the subjects, as well as the character of the institutions in which they work, will be delimiting factors affecting the external validity of the interpretations. Also, since a random sample of the population was not drawn, generalizations beyond those surveyed will be restricted; however, this study will have important implications for black administrators in particular and educational adminstration in general.

Hypotheses

The following hypotheses will be tested in this study:

Hypothesis 1: Black adminstrators in predominantly white public four year institutions of higher education in Michigan who have high self-perceived role functions experience more stress than black administrators who have low self-perceived role functions

Hypothesis 2: There are direct relationships between the self-perceived role functions of black administrators in predominantly white public four year institutions of higher education in Michigan and the demographic variables of age, marital status, sex, level of job responsibility, income level, level of education and length of time in the job

Hypothesis 3: There are direct relationships between the amount of stress experienced by black administrators to predominantly white public four year institutions of higher

education in Michigan and the demographic variables of age, marital status, sex, level of job responsibility, income level, level of education and length of time in the job

Hypothesis 4: Black administrators who encounter more role conflicts and ambiguities experience greater amounts of stress than black administrators who encounter fewer role conflicts and ambiguities

Hypothesis 5: Black administrators in predominantly white public four year institutions of higher education in Michigan who experience greater amounts of stress will be prone to more illnesses than those black administrators who experience less stress

Data for testing these hypotheses will be analyzed from black administrators' responses to a questionnaire which contains demographic data, institutional and role data, and stress and illness data.

Definition of Terms

In this study the following terms are defined to promote clarity in regard to their use:

Administrators--Incumbents of line and staff positions equivalent to president, vice-president, provost, dean, department chairmen, director, coordinator and all the assistant positions

Predominantly White--Refers to those educational institutions whose student body is at least seventy percent white as reported by the National Center for Education

Statistics in 1979

Role--A series of unified expectations applied to an incumbent of a particular position. The administrator's role in the institution is defined by the obligations and responsibilities attached to the position

Role Ambiguity--The degree of uncertainty among role expectations for an incumbent of a particular position

Stress--A response state or condition of a person subjected to mental and/or physical influences or pressures

Overview

The need and purpose of the present research and the hypotheses of interest have been described in Chapter I. In Chapter II of the literature pertinent to the study will be reviewed. In Chapter III the population, sampled subjects, procedures, instrument, design and procedures for analysis of data will be described. Chapter IV will contain an analysis of the results. Finally, Chapter V will include a discussion of the results and conclusions with implications and recommendations for future investigation.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Only since the racial upheavals of the late sixties have public institutions of higher education been significantly integrated to the extent that blacks were hired as administrators in predominantly white educational institutions. Until fairly recently, therefore, most black educational administrators have functioned primarily as principals in segregated public schools and as administrators in all-black colleges and universities. As a result, there are very few empirical investigations related to stress and self-perceived role of black administrators in predominantly white institutions of higher education. For this reason this review, particularly in the area of stress, focused upon related studies.

The review of the literature for this study will be organized around four specific topics: (1) role theory, (2) role conflict and role ambiguity as related to the black administrator, (3) race and stress, and (4) stress and illness. Some of the review will rely on theoretical formulations and scholarly speculation and treatises.

Role Theory

The concept of role has been the subject of numerous theoretical formulations but it still remains a relatively underdeveloped concept. Many definitions of role are presented in the literature but it is noteworthy that the definitions represent different disciplines and different points of view within single disciplines. Anthropologists, psychologists, and other social scientists tend to enumerate the aspects of role theory that are pertinent to the problems inherent in their respective disciplines and there is often failure to differentiate clearly the various elements of role theory.

One of the elements of central importance when focusing on role theory is the speculation that human behavior is influenced to some degree by the expectations that individuals hold for themselves or that other individuals hold for them. Bennett and Tumin (1948) defined role as ". . . what the society expects of an individual occupying a given status." Sargent (1951), a psychologist, added another dimension when he related social position to the concept.

> A person's role is a pattern or type of social behavior which seems situationally appropriate to him in terms of the demands and expectations of those in his group. (p. 91)

Sargent then added that, in a sense, roles have ingredients of cultural, personal and situational determination but never is a role wholly personal, wholly cultural, nor wholly situational.

Parsons' major formulation of role is a more elaborate example of treating role as an individual's definition of his situation with reference to his and others' social positions. A background frame of reference was offered by Parsons and Shils (1951) when they postulated that the individual is an actor whose actions take place in a situation consisting of other actors or physical or cultural objects. Each individual actor has a "system of orientations" or relations to these objects. Thus, role is viewed as a mode of organization of the actor's orientation to the situation. Parson (1951) added another dimension to this connotation of role when he pointed out that the "system of orientations" involves interacting relationships that are reciprocal. He said that a role is a sector of a total orientation system of an individual actor which is organized and integrated in a particular interaction context with one or more actors in the appropriate complementary roles.

It should be noted that this is just one of the connotations of role that Parsons expounded. Gordon (1966) accused Parsons of changing emphasis when his research interest or analytical perspective shifted. When discussing the relationship of the individual to the social system itself, he defined role in terms of common value orientations or standards. This shift in connotations by Parsons points up the diversity of the concept of role and is related to the complexity of the many variables or elements of the concept.

These forestated definitions of role imply cultural

influences, but do not stress the importance of cultural patterns. Linton (1936), an anthropologist, stressed cultural patterns and gave primary emphasis to the normative patterns influencing the behavior of occupants of positions in the social structure. In what has probably become one of the most quoted definitions of role, Linton defined role in terms of a status. According to Linton a status is a collection of rights and duties which find expression through the medium of the individual.

> A role represents the dynamic aspect of a status. The individual is socially assigned to a status and occupies it with relation to other statuses. When he puts the rights and duties which constitute the status into effect, he is performing a role. (pp. 113-114)

Linton continued to explain that role and status are inseparable and that any distinction between them is only academic. Role and status are derived from social patterns and represent the minimum of attitudes and behaviors which the individual must assume if one is to participate in the overt expression of the pattern. Thus, status and role reduce the ideal patterns for social life to individual terms.

Since the primary focus of this undertaking is the role perceptions of black administrators, the concept of role elucidated by Linton with its emphasis on cultural and social phenomena as related to individual behavior is germaine. This connotation of role reduces it to a highly individualistic nature and such variations as race, personality, family background, educational level, sex, position in the administrative hierarchy and innumerable other variables are

considered to be contributing determinants of self-perceived role.

Relationship of Role Conflict and Ambiguity to Black Administrators

When the concept of role was applied to educational administration the model of Getzel and Guba as depicted in Guba (1958) supported viewing role as an interaction between personal variables and institutional variables. Figure 2.1 provides a schematic of the Getzel-Guba model. Knezevich (1975) viewed the Getzel-Guba model of administration as a social process incorporating an institutional (nomothetic) dimension and a personal (idiographic) dimension. The nomothetic dimension defines roles and expectations that will fulfill the goals of the system while the idiographic dimension constitutes the individual personality and need dispositions.

Downey (1960) took the Getzel-Guba model and modified it to apply to school administration. Figure 2.2 shows this modification. The significance of the Getzel-Guba model and its modified Downey version is that it hypothesized that the individual who is in public school administration is subjected to a number of interacting forces. The individual's role perception and his behavior are based on these nomothetic and idiographic dimensions. According to Knezevich (1975) this model also offers an explanation of how role conflict can occur. He suggested that conflicts are inevitable when the individual is expected to conform simultaneously to

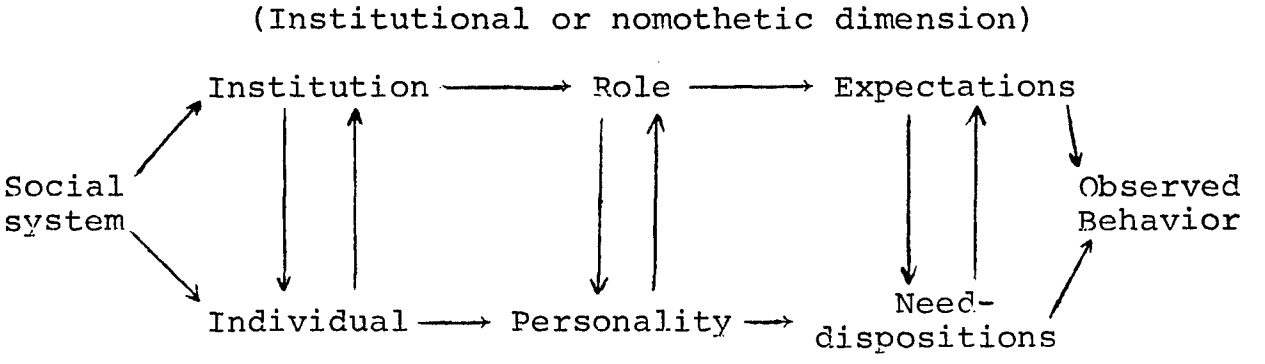

Figure 2.1. Getzel's and Guba's model of administration as a social process.

SOURCE: J. W. Getzels, "Administration as a Social Process," in Andrew Halpin, ed., Administrative Theory in Education, Chicago, Midwest Administration Center, The University of Chicago, 1958, chap. 7.

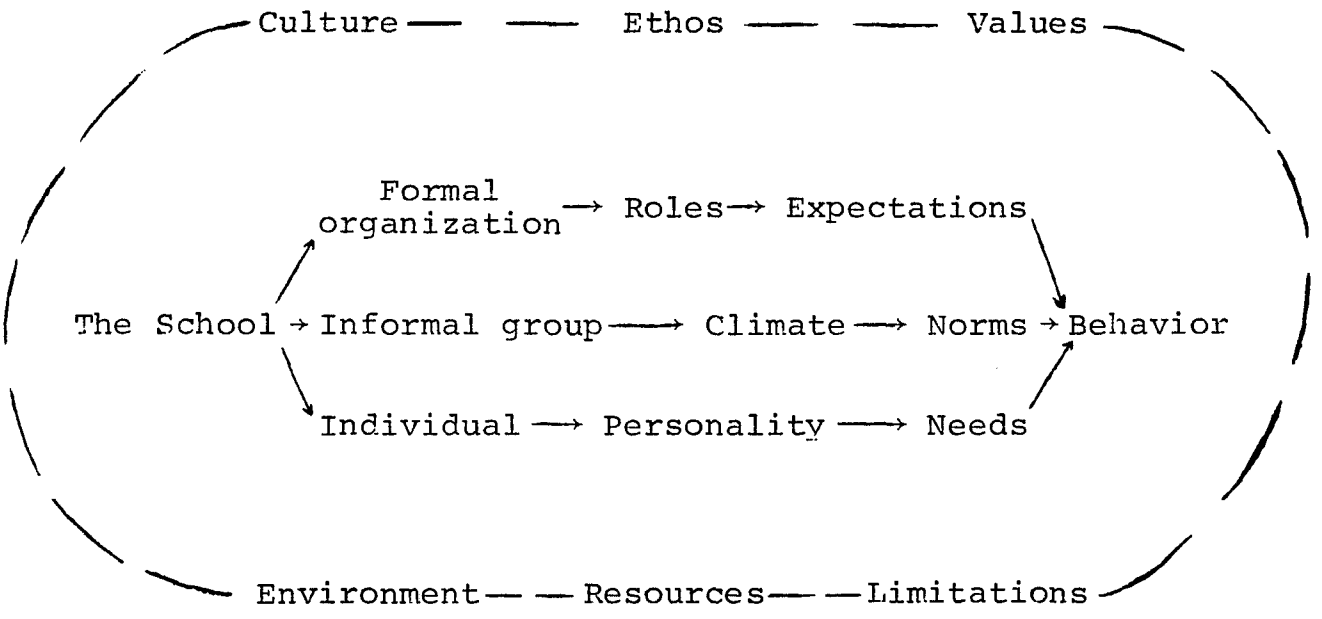

Figure 2.2. Getzel's and Guba's model of administration as a social process modified to apply to school administration.

SOURCE: L. W. Downey, "Who Shall Train Our Administrators," in D. E. Tope, ed., A Forward Look: The Preparation of School Administrators, 1970, Eugene: Bureau of Education Research, University of Oregon, 1960, p. 97.

contradictory and inconsistent demands. Role conflicts also occur when the patterns of expectations attached to a role and the patterns of the needs of the individual are not congruent. In other words, the individual's personality and/or moral value system is in conflict with the organizational demands.

This delineation of role conflict is congruent with Gross, Mason and McEachern (1958) who defined role conflict as "conflicting sets of legitimized role expectations" (p. 246), and it is also in line with Seeman's (1953) formulation in which role conflict is seen as "the exposure of the individual in a given position to incompatible behavioral expectations" (p. 373).

Kahn and his associates (1964) and Kahn and French (1970) related conflict to pressure and distinguished at least four types of conflict: (1) conflict may arise from the instruction to carry out a particular action when the person knows that such action is at variance with previous instructions; (2) conflict may result from the incompatibility of information from different members of an organization; (3) conflict can arise between different roles which may be within or outside the person's work; and (4) conflict can arise because personal values and needs are violated by certain job or task requirements. According to Cox (1978), role ambiguity exists when an individual has inadequate information about his role at work. Role ambiguity manifests itself in a lack of clarity about work objectives, about colleagues'

expectations, about the scope and responsibilities of the job, and about the job requirements (Kahn, 1974; Warr and Wall, 1975; Cooper and Marshall, 1976).

There have been a number of studies which show that there is a considerable disparity between what a person thinks his job is and what one's superiors think the job entails. Kahn and his associates (1964) carried out what is probably the most intensive study of role conflict. They conducted a national survey to determine the amount of role conflict in the population. They also carried out an intensive survey in industrial locations with fifty-three focal persons in the oil, automobile, electronics and machine parts industries. The national survey showed that the experience of role conflict is common. They found that thirty-five percent of their fifteen-hundred respondents were unclear as to their job responsibilities. A similar proportion expressed feelings of uncertainty and lack of clarity about what was expected of them by their co-workers, and about their prospects for promotion. The respondents reporting role conflict felt they were caught in the middle between two conflicting persons or factions. The fifty-three focal persons reported results which lead to the conclusion that role conflict had definite emotional costs and resulted in low job satisfaction, low confidence in the organization, and a high degree of job-related tension.

Kahn and his associates (1964) also reported on the impact of role ambiguity and found results that were

essentially comparable. The consequences of ambiguity for the individual were also low job satisfaction, low self-confidence, a high sense of futility, and a high level of tension. The organizational determinants of conflict and ambiguity were reported to be the requirement for crossing organizational boundaries, the requirements for producing innovative solutions to nonroutine problems and the requirements for being responsible for the work of others.

Caplan (1971) conducted a study of scientists, engineers and administrators at the Goddard Space Flight Center and reported results that were similar to those reported by Kahn. Caplan related that a high percentage (60 percent) of the respondents reported some experience of role ambiguity related to a lack of job satisfaction, and to feelings of job-related threat to both psychological and physical well-being. In this study Caplan found that over a two-hour work period, the workers had mean heart rates which correlated substantially with their subjective reports of role conflict. In a further study French and Caplan (1973) conducted a study at the Kennedy Space Flight Center and showed that, in addition to being related to lack of job satisfaction and feelings of job threat, role ambiguity could also be related to anxiety and depression.

Black administrators in predominantly white public four year institutions of higher education find themselves in settings that are quite conducive to role conflict and role ambiguity. While the literature is scant in empirical

studies related specifically to the situation of black administrators, there have been verifications of conflict and ambiguity by some black administrators in this precarious position. There is a disparity in the roles of the black administrators in predominantly white educational institutions and the roles of their white counterparts. Some writings do show that black administrators face unique and conflicting tasks and expectations. Black administrators' roles are unique in such aspects as the part ethnicity plays in their being hired as administrators, in the expectations of their fellow co-workers, in the expectations of the black students in particular, and in their own role perceptions.

Frazier (1957) emphasized the ambivalence of a black middle class person over moving toward the general society. Frazier argued that in their restricted role as the elite of a segregated community, black professionals will typically find themselves squeezed between several conflicting pressures: the compulsion to demonstrate to whites their equal intelligence, talent and respectability; the basic lack of identification with the black masses; and a desire for white acceptance.

Watson (1972), in a paper presented to the First National Congress of Black Professionals in Higher Education, spoke of the difficult task of black administrators in predominantly white institutions. He emphasized that black administrators must attempt to bring about institutional change in program and policies in order to provide greater relevancy

and opportunity for blacks. According to Watson, the duality of being a black and an administrator is seen in the challenge to not only live with the pressures of the situation but to take advantage of them.

Motley (1977), a black dean at Amherst College, found himself in the anomalous situation of being his own nemesis. The black dean is the sorely overburdened campus expert on race relations who is constantly called upon to solve problems relating to black students, no matter how ill-related to the duties of a dean. Motley said that the black dean ends up doing someone else's job at the expense of his own work, thus running the risk of being labeled as incompetent. It is a "no-win" situation.

Mary Berry, a black female Ph. D. who was named a provost at the University of Maryland at College Park in 1974, found herself in a similar position. She agreed that minority academics are frequently overused. In an interview with Fischer (1975), Mary Berry reported that she found herself swamped with requests to serve on boards and committees—even listed by organizations about which she knew nothing. It was as though the organizations needed a female or they needed a black. In Mary Berry, they were "killing two birds with one carefully aimed stone."

These testimonials of Motley and Berry are supported by the few research studies that have been done in the area of black and minority role perceptions and role conflicts. Bush (1977) reported on the ambivalence of the

minority administrator. Bush conducted a study of thirty black and Chicano administrators who were concentrated in Southern California non-profit service and business organizations. The findings of this study support the hypothesis that minority administrators perceive themselves as being required to have greater job entrance capabilities than their white peers, receiving less organizational support than their white peers, having limited channels for communication, and having limited opportunities for upward movement in comparison with their white peers.

The findings of Bush are supported by the conclusion of Lopez (1978) who conducted a survey of two hundred fifty-seven Chicano community college administrators in order to discover and describe the role perceptions, expectations and conflicts specific to Chicano administrators. The findings revealed that Chicano administrators placed the highest value on community and student expectations as determinants of their role. Being a catalyst for change was viewed as an important role by respondents and was identified as the role which produced a high degree of role conflict. Role conflict was also found to increase as Chicano ethnicity was emphasized. Other findings of the study were: ethnic self-identification and institutional ethnic composition were found to be significantly related to role conflict; and tokenism, assignment to policy-implementation rather than policy-making roles, excessive job demands, and the need to disguise institutional reform efforts were felt to be major contributors

to role conflict. While this study is specifically related to the Chicano administrator, its findings do have implications for the black administrator, given the similar histories of discrimination and minority status.

The findings of the Lopez study of Chicano administrators closely parallel the findings of a survey of black administrators in mid-western institutions conducted by Jones (1977). In delineating the changing profile of black administrators in predominantly white colleges and universities, Jones reported that the barriers to black participation in administration were: (1) their positions in the administration; (2) for many the fact that they were not faculty members and (3) systematic racism that requires great amounts of time, energy, patience, study, analytical ability, and interpersonal skill to combat through organization strategies for change.

In a dissertation study designed to explore and compare the self-perceived roles of black and non-black administrators who have comparable institutional affiliation and who hold similar positions in selected predominantly white institutions of higher education Cox (1971) reported these findings which are specifically related to role:

(1) black administrators when compared to non-black administrators appeared to have had proportionally more decisions of an undesirable nature related to black students and faculty;

(2) generally, black adminstrators were more involved

in routine, procedural, and human relations type functions than the non-black administrator; and

(3) black administrators generally have less administrative experience than non-black administrators.

The position of the black administrator in a predominantly white institution of higher education is aptly described by Moore and Wagstaff (1974) as an "alien in the promised land." Moore and Wagstaff further conducted a survey among three thousand black educators in white colleges in the United States. The administrators in this group responded with some of their particular frustrations: some had no potential for upward movement; many were expected to be "expert" on blacks; many were hired primarily to relate to the black public; and a significant number were frustrated because of a lack of definition in duties and a lack of real authority.

The aforementioned studies clearly support the premise that the black administrator experiences role conflicts and ambiguities. These role ambiguities, frustrations, incongruencies and conflicts are postulated to have a relationship to stress and stress is known to manifest itself in a number of illnesses and ailments.

Race and Stress

Most people would probably agree that the black administrator in a predominantly white institution of higher education is in an unusually stressful situation. While

this assumption is generally accepted, a cause and effect relationship between race and stress is not empirically documented in the literature. This relationship is difficult to establish because of the complexity of other variations that may be involved such as heredity, diet, social status, occupation, education, or a number of other variables. For example, if black administrators in higher education experience a high prevalence of hypertension, a stress-related illness, it is virtually impossible to attribute this condition solely to race. It could be due to the administrator's diet, or to a lack of formal administrative training, or a wide range of other possibilities. While racial differences are particularly attractive and are popular explanations for variation in behavior, it should be kept in mind that using race to explain stress involves trying to establish causality and this cannot be done. Only the existence of a relationship between the two variables can be shown.

Attempts at showing a relationship between racial-cultural influences and stress or illness have relied mainly on logical reasoning rather than empirical observations. Levine and Scotch (1970) cited evidence of attempts to justify this relationship by logic when they related the thinking of Siegerest (1943) and Simmons and Wolff (1954). Siegerest rationalized that such things as religion, philosophy, education, and social economic conditions determined a man's attitude toward life and therefore exerts great influence on his individual disposition to disease. The importance

of these cultural factors is still more evident when we consider the environmental causes of disease. Simmons and Wolff (1954) echoed Siegerest in that they postulated that physical, social and cultural factors combine to make a whole person, therefore it is equally imperative to consider their effects on illness, accidents, or other ill-fated happenings.

Dohrenwend and Dohrenwend (1969) conducted an extensive review of the literature in an attempt to show class and race as status-related sources of stress. While the results of this investigation do not allow for any definitive conclusions, the evidence does suggest that both lower-class and middle-class blacks experience stressors more frequently than their white class counterparts, and that middle-class blacks and lower-class blacks appear to be relatively handicapped, compared to their white class counterparts, by external factors that mediate the impact of stressors except in one respect (lower class blacks appear to have more extrafamilial sources of social support than lower class whites). No definitive conclusions could be drawn concerning internal factors that mediate the impact of stressors.

A survey of the literature did not reveal any empirical studies relating race and stress nor any studies specific to the relationship between stress factors and the black administrator in a predominantly white institution of higher education.

Stress and Illness

During the early 1900's, infections and contagious diseases were the major cause of illness and death in the United States. According to statistics reported by the United States Department of Health, Education and Welfare (1962), the major causes of death in 1900 were pneumonia and influenza, tuberculosis, and diarrhea and enteritis. By contrast in 1960 the three major causes of death were diseases of the heart, malignant neoplasms, and vascular lesions affecting the central nervous system. The shift away from infectious diseases should be noted. One can attempt to explain this shift by noting the improved medical technology which has decreased the diseases of the 1900's. The increased age structure of the general population can also account for the predominance of the causes of death of the 1960's. However, this cannot be accepted as a total explanation. Dodge and Martin (1970) reported that the variability of chronic disease patterns in the United States suggests causation other than changes in age or medical technology. Dodge and Martin related certain variations in rates among area, age, sex, and race categories that point toward a sociological theory of social stress as accounting for chronic illnesses in modern times:

1. Death rates from arteriosclerotic heart disease are consistently higher for whites than nonwhites. White

and nonwhite males consistently have higher rates than females. Widowed persons have higher rates than the single, married or divorced

2. Coronary heart disease is persistently higher along the eastern and western seaboards than in the inland, rural, and farm states

3. The age-adjusted death rate for coronary heart disease in New York is consistently and appreciably higher than the age-adjusted death rate from all causes in North Dakota

Improved skills and technology cannot account for variations by sex, color, marital status and state of residence. Varying degrees of social stress are postulated to be a major factor behind the variations of chronic disease mortality evidenced among populations.

Not only are chronic diseases postulated to be stress-linked, but there is an ever-growing body of evidence to support the belief that stress, particularly occupational stress, is a causal factor of coronary heart disease, peptic ulcers, respiratory diseases, hypertension, headaches, mental ill health, and a number of other physical ailments.

Many of the approaches to stress as a linkage to disease received their initial impetus from the works of Selye (1955) who viewed stress as a response base concept. Selye described a "general adaptation syndrome" which represented a pattern of defense reactions which progressed through three identifiable stages. According to Selye, when

an individual is exposed to a stressor, it goes through a stage of alarm in which shock and countershock mechanisms play a role, a stage of resistance, and finally a stage of exhaustion. Each of these stages are expressed biologically in different ways but are intimately concerned with disturbances recognized as disease states. The human body responds to a stressor in an attempt to reduce or remove the stressor. The extent of the resultant bodily disorder is highly individualistic and is dependent on the intensity and prolonged nature of the stressor. Illness or even death can be the result of the defense against exposure to stressor agents.

Levi (1969) described physiologically how the defense function of the body operates. According to Levi, the reaction to stressors is initiated by the two parts of the automatic nervous system, the sympathetic and parasympathetic. Together these attempt to adjust the various body functions to meet the stressor. Next, there is an increased production of adrenaline by the adrenal glands, stimulated via the sympathetic nervous system. This increased production of adrenaline coupled with impulses from the hypothalmus, brings the pituitary and its hormones into the battle. These hormones, in turn, influence the other endocrine glands and their hormones, thereby regulating the somatic defenses and adaptation. Among these substances which are discharged into the blood stream are the adrenocorticatropic hormone (ACTH), which acts upon the adrenal gland; the gonadotropic hormones, which affect activity in the genital

glands; and the thyreotropic hormones, which regulate the thyroid gland.

Levi further explained the physiological reaction of the body to mental stressors.

> Impulses are transmitted from the cerebral cortex to the hypothalamus, which regulates not only the automatic nervous system but also the pituitary—its posterior lobe directly via nerve endings, its anterior lobe by a secretion from the hypothalmus which flows through direct vascular connections to the pituitary. The increased production of adrenaline, which is a result of the increased sympathetic stimulation, also activates the pituitary. This produces a radical adjustment of the body's processes. (p. 38)

The body's adjustment to mental and physical stressors are of approximately the same nature. When the body attempts to adjust to stressors and this attempt fails, diseases of adaptation are produced. Kagen and Levi (1971) and Levi (1974) constructed a theoretical model to describe psychological factors in the mediation of physical disease. They proposed the hypothesis that psychosocial stimuli together with the psychobiological programme determine the occurrence of the stress response, which in turn may provoke precursors of disease, and then disease itself.

Research conducted during recent years has produced a growing body of evidence that there is a direct relationship between occupational stress and physical and mental illness. Cooper and Marshall (1976) conducted an extensive review of the literature relating stress to coronary heart disease and mental ill health. While admitting to methodological weaknesses in the studies reviewed and large gaps in

our knowledge, the extensive research provides seminal evidence to support the notion that work environment and modern organizations have an impact on the physical and mental health of their members. Not only is coronary heart disease linked to stress but other physical illnesses as well. A few studies will be mentioned to support the contention that stress and illness are related.

Any discussion of the physiological response to stress generally recognizes, in addition to Selye, the work of Cannon (1931). Cannon conducted extensive research on cats to describe an active pattern of response to acute stress of emergency situations. The responses were characterized as "fight" or "fright" and these behaviors were seen as a function of the sympathetic nervous system and the adrenal medulla. The former brings about the rapid change in cardiovascular function. Subsequent researchers have added the "freeze" dimension to the "fight" or "flight" emergency reaction. Gray (1971) has described the emergency reaction as an increase in the rate, strength and regularity of the heart beat, contraction of the spleen, the release of glucose stored as glycogen in the liver, the redirection of the blood supply from the skin and the vicera to the muscles and the brain, deepening of respiration and dilation of the bronchi, dilation of the pupils, an enhancement of the blood coagulation process and of the supply of blood lymphocytes.

Ehrstrom (1945) conducted studies of soldiers entering combat and revealed increases in blood pressure and other

vital signs. Graham (1945) reported on the prevalence of hypertension increases for civilians under wartime conditions. These studies offer consistent support for the "fight" or "flight" concept.

Other writers and social scientists have expanded the initial concepts of stress to incorporate the stimulus characteristics of environments as well as the individualistic nature of the concept. Korchin and Ruff (1964) conducted studies of the seven Mercury astronauts in the 1960's and concluded that their personality characteristics and backgrounds contributed to their high resistance to stress. Levine (1967) conducted studies in which animals that were stimulated in infancy showed a more effective physiological response when stimulated in adult life than animals which had not been stimulated in infancy. Transferring their results to human situations, Levine concluded that stress is partly dependent on the nature of one's early environment.

These aforementioned studies offer empirical support to the postulation of a direct relationship between stress and physical illness. There have also been studies that are aimed at showing that managers and administrators experience mental and physical disorders when they are placed in stressful situations or at least when they perceive certain aspects of their job as being stress-producing.

Swent and Gmelch (1977) have categorized five sources of stress for the educational administrator as (1) administrative constraints dealing with stressors realted to

time, meetings, work load and compliance with federal, state and organizational policies; (2) administrative responsibility related to such tasks as supervision, evaluation and negotiation; (3) interpersonal relations with parents, school personnel, staff and students; (4) intrapersonal conflicts; (5) role expectations dealing with stress caused by a difference in the expectations of self and the various publics with which administrators must deal. These publics include students, parents, colleagues, boards, supervisors, members of the community and the general public.

Black educational administrations have numerous responsibilities and obligations to various groups. Each group has expectations of the adminstrators and these expectations may not be congruent with how the administrators perceive their own roles or responsibilities. Any discrepancy between the role expectations of the various clients and the administrators' own expectations may create varying degrees of stress. In addition, the administrators' self-perceived roles may be a source of stress, particularly if the administrators perceive that they must be all things to all people. Cooper and Marshall (1976) have delineated the many sources of stress at work in Figure 2.3 and have provided a model to show how these sources of stress can lead to ill health and disease.

French, Tupper and Mueller (1965) looked at stress specific to 122 university administrators and professors. They looked at qualitative (kind) and quantitative (amount)

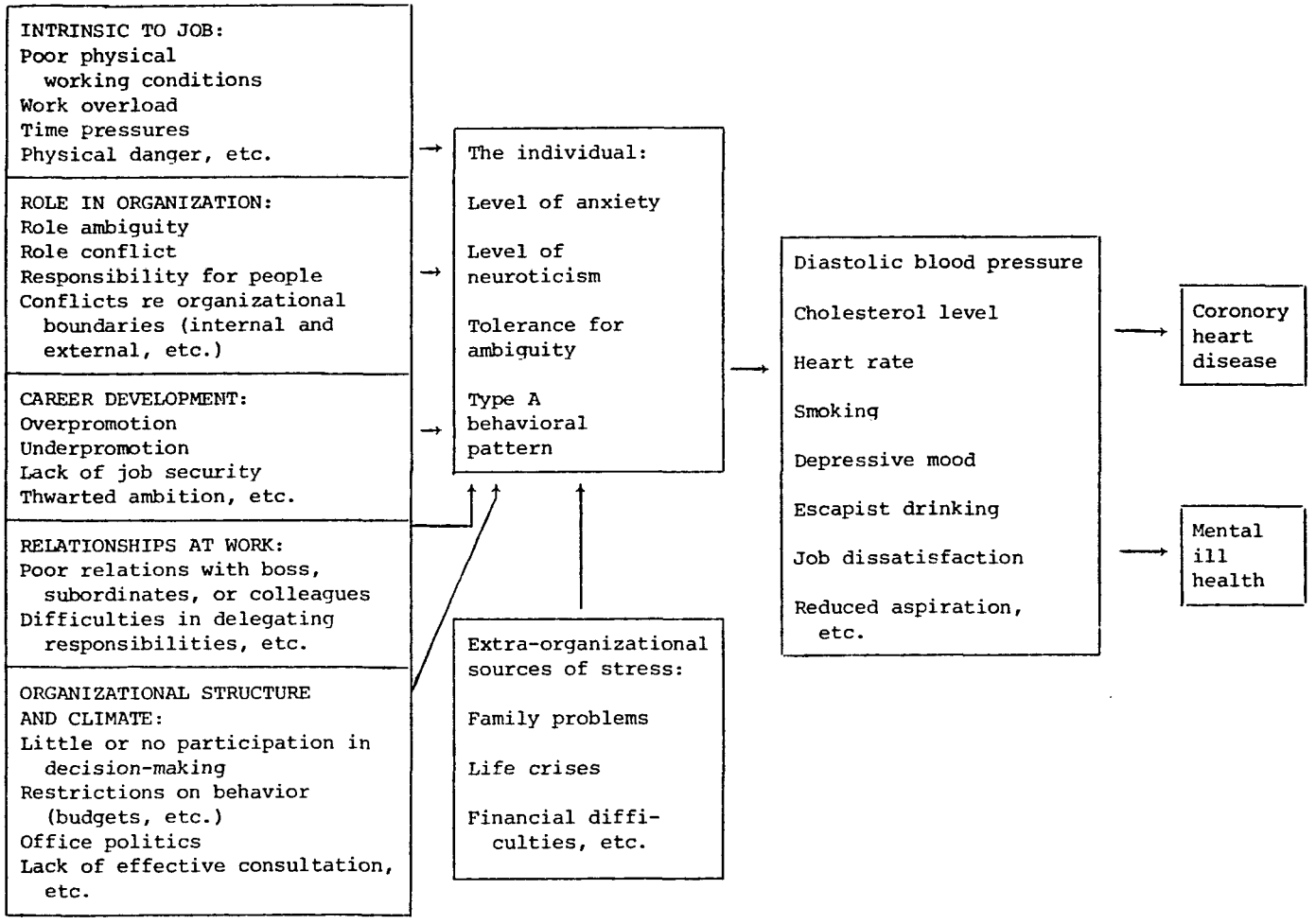

Figure 2.3. A Model of Stress at Work.

SOURCE: Taken from Cooper, C. L. and Marshall, J. "Occupational Sources of Stress: A Review of the Literature Relating to Coronary Heart Disease and Mentall Ill Health," Journal of Occupational Psychology, 1976, 49:12.

work overload in a large university and found that one symptom of stress, low self-esteem, was related to work overload. Qualitative overload was not significantly correlated to low-esteem among administrators but was significantly correlated for professors. The greater the "quality" of work expected of professors the lower the self-esteem.

Swent and Gmelch (1977) conducted a survey of 1,156 Oregon school administrators to ascertain what causes them stress and how they cope with it. In addition to reporting on their perception of stress, the administrators were asked to rate their health on a self-reporting five-point scale from excellent to poor. The data show that when health status was compared to the individual stress categories as well as to a composite score of all stressor items, the level of health decreased as the level of stress increased.

Christenson and Hinkle (1969) conducted studies on two groups of managers who were working for the same company. They found marked differences in the disease prevalence in those groups who had completed college as opposed to those who had not completed college prior to coming to the industry. This latter group shared a significantly greater number of illness of all sorts than the former group and were found to be more susceptible to major and minor illnesses, and also more susceptible to "emotional illness."

Kahn and his associates (1961) conducted studies related to role conflict and ambiguity. While no measurements of physical illnesses were included in these studies,

individuals who experienced role conflicts or ambiguity were found to have significantly higher symptom scores than did those occupying roles in which there was no, or minimal, evidence of conflict or ambiguity.

Jackson (1962) conducted a study concerned with the concept of status inconsistency as measured by the concordance of scores given to the occupational level, education, and racial ethnic background of individuals. As in the Kahn studies, no measurement of the occurrence of physical disease was included. However, a symptom query which measured health status was found to be highest in those inconsistent status patterns where ascribed status was superior to achieved status. Likewise, Abramson (1966) found that Cornell Medical Index Scores were highest (when controlled for age and sex) when there was a discrepancy between occupational status and educational level.

In summary, there are a wealth of studies which link occupational stress and illness. Administrators' roles in the organization in which they work can be potential stressors, particularly if role conflicts and role ambiguities exist. While much of the evidence focused on coronary heart disease, other symptoms of occupational ill health are evidenced. It is obvious that there is sufficient evidence to argue that stress does affect one's mental and physical health and that methods of coping with stress must become a necessary part of organizational life.

Summary

There are noticeable gaps and methodological weaknesses in the literature when one reviews the studies relating to self-perceived role and stress. There is a particular dearth of information concerning the self-perceived roles of black educational administrators and the particular stressors they must endure. Because of this scarcity of information, it was necessary to look at studies related to managers and administrators in business and industry and supplement them with the few empirical studies that related directly to educational administrators. The information gained from these studies can be translated to the particular situation of black administrators. Despite these gaps in our knowledge, the research review here provides seminal evidence to support the notion that there is a relationship between stress and the self-perceived roles of black educational administrators. This literature review also provides a sound basis on which to focus other research in this area.

CHAPTER III

STUDY DESIGN AND PROCEDURES

Overview

The major objective of this study was to investigate the relationship between stress factors and the self-perceived roles of black administrators in the four year public institutions of higher education in Michigan. More specifically, the objectives evolving from the statement of the purpose were:

(1) to determine if there is a direct relationship between the self-perceived roles of black administrators and the amount of stress which the adminstrators experience,

(2) to determine if there is a direct relationship between the self-perceived roles of black adminstrators and each of the demographic variables of age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job,

(3) to determine if there is a direct relationship between the stress experienced by black administrators and each of the demographic variables of age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job,

(4) to determine if there is a direct relationship

between the amount of role conflicts and ambiguities experienced by black administrators and the amount of stress they experience, and

(5) to determine if there is a direct relationship between the amount of stress black administrators experience and their proneness to illness. This chapter will focus on a discussion of the population, the subjects, the instrument, the procedure, the hypotheses and the treatment of the data.

Population

The population from which the subjects for this study were drawn consisted of the 232 black persons who were employed as administrators in the 15 public four year institutions of higher education in the state of Michigan during the spring of 1980. The institutions from which the population was drawn are: Central Michigan University, Eastern Michigan University, Ferris State College, Grand Valley State College, Lake Superior State College, Michigan State University, Michigan Technological University, Northern Michigan University, Oakland University, Saginaw Valley State College, University of Michigan at Ann Arbor, University of Michigan at Dearborn, University of Michigan at Flint, Wayne State University, and Western Michigan University. These institutions have at least seventy percent white student bodies as reported by the National Center for Educational Statistics. The enrollment breakdown for these institutions is seen in Table 3.1.

TABLE 3.1

RACIAL-ETHNIC MINORITY AND NON-MINORITY
ENROLLMENT BREAKDOWN OF PARTICIPATING INSTITUTIONS

Institution	Total Enrollment	Percent Minority Enrollment	Percent Non-Minority Enrollment
Central Michigan University	17,878	2.9	97.1
Eastern Michigan University	19,080	9.3	90.7
Ferris State College	9,880	6.3	93.7
Grand Valley State Colleges	6,259	6.6	93.4
Lake Superior State College	1,913	2.5	97.5
Michigan State University	46,760	7.1	92.9
Northern Michigan University	8,500	3.0	97.0
Oakland University	20,955	6.3	93.7
Saginaw Valley State College	3,053	13.0	87.0
University of Michigan--Ann Arbor	32,248	10.3	89.7
University of Michigan--Dearborn	4,582	6.6	93.4
University of Michigan--Flint	3,300	14.2	85.8
Wayne State University	30,275	29.7	70.3
Western Michigan University	20,834	7.9	92.1

NOTE: Racial-Ethnic Minority, as defined by the National Center for Education Statistics, includes American Indian-Alaskan Native, Black-Nonhispanic, Asian or Pacific Islander, and Hispanic.

SOURCE: National Center for Education Statistics, Education Directory: Colleges and Universities, Washington, 1978-1979.

The names and addresses of the personnel directors of the aforementioned colleges and universities were obtained from the current Education Directory: Colleges and Universities. On March 10, 1980 letters were mailed out to the 15 personnel directors requesting them to provide the investigator with the names, administrative titles and addresses of the black administrators employed in their respective institutions. For purposes of clarity and understanding, the term administrator was defined in the letter as those line and staff positions equivalent to presidents, vice-presidents, provosts, deans, department chairmen, program directors, program coordinators and all of the assistant positions that are inclusive therein. The letter also contained an explanation of the nature and purpose of the study and indicated that the findings could have important implications for the future of higher education. In addition, the letter contained an assurance from the investigator that findings of the study would be reported in aggregate form and that no comparisons would be made on an individual or institutional basis.

Of the 15 letters mailed, responses were received from 9 of them within a two week period. The listings from the other six institutions were obtained by follow-up telephone calls to the personnel directors and in three instances the listings were obtained by contacting other key persons within the institutions who could provide the investigator with the desired information. The net result was that

a response was received from all 15 target institutions of higher education. From these responses a composite listing of 232 black administrators was compiled. The scarcity of black administrators in higher education made it necessary to survey the entire population.

Subjects

Of the 232 black administrators who were asked to participate in the study, 149 or 64.2 percent usable responses were obtained (N=149). Since the entire population of black administrators in the four year institutions of higher education was surveyed, the 149 respondents constitute a convenience sample of the population. It was determined by a listing of the specific job titles that various institutions use different title designations. The investigator categorized the titles in the following area which represent the participants' level of responsibility: (1) presidents, vice-presidents and provosts; (2) deans, assistant deans and associate deans; (3) program directors, program managers, department chairmen and supervisors; (4) program coordinators and project coordinators; and (5) administrative assistants and administrative officers.

Background information was obtained by asking the participants to respond to items on the questionnaire relative to their age, sex, marital status, number of children, place of birth, educational background, books and articles published, and tenure status. This information is summarized in Table 3.2.

TABLE 3.2

BIOGRAPHICAL DATA OF BLACK ADMINISTRATORS

Item	Frequency	Percent
SEX		
Males	82	55.0
Females	67	45.0
AGE		
20-29	27	18.1
30-39	65	43.6
40-49	39	26.2
50-59	15	10.1
60 and above	3	
MARITAL STATUS		
Single	23	15.4
Married	92	61.7
Divorced	22	14.8
Divorced and Remarried	7	4.7
Separated	5	3.4
NUMBER OF CHILDREN		
None	32	21.5
One	34	22.8
Two	41	27.5
Three	26	17.4
Four and Over	16	10.7
PLACE OF BIRTH		
Michigan	43	28.9
Southeast U. S.	56	37.6
Northeast U. S.	8	5.4
Northern Midwest (except MI)	17	11.4
Southern Midwest	16	10.7

TABLE 3.2--Continued

Item	Frequency	Percent
Southwest U. S.	6	4.0
Outside Continental U. S.	3	2.0
TOTAL YEARS OF WORK IN HIGHER EDUCATION		
Less than 1 year	14	9.4
1 to 4 years	25	16.8
5 to 7 years	26	17.4
8 to 10 years	25	16.8
Over 10 years	59	39.6
TOTAL YEARS IN PRESENT JOB		
Less than 1 year	23	15.4
1 to 4 years	63	42.3
5 to 7 years	26	17.4
8 to 10 years	25	16.8
Over 10 years	12	8.1
TOTAL YEARS AT PRESENT INSTITUTION		
Less than 1 year	11	7.4
1 to 5 years	50	33.6
6 to 10 years	52	34.9
11 to 20 years	29	19.5
21 to 27 years	7	4.7
PRESENT SALARY		
Below $20,000	60	40.3
$20,000 to $29,999	49	32.9
$30,000 to $39,999	24	16.1
$40,000 to $49,999	12	8.1
$50,000 and over	4	2.7

TABLE 3.2--Continued

Item	Frequency	Percent
BOOKS PUBLISHED		
None	116	77.9
1 to 3	29	19.5
4 to 6	3	2.0
7 to 9	1	0.7
ARTICLES PUBLISHED		
None	78	52.3
1 to 3	39	26.2
4 to 6	11	7.4
7 to 9	5	3.4
10 or more	16	10.7
IN TENURE TRACK		
Yes	36	24.2
No	113	75.8
HAVE TENURE		
Yes	28	18.8
No	121	81.2

Instrument

The instrument (Appendix A) used in this study was a questionnaire which was constructed to gather information about the demographics of the participants, the employing institutions, the self-perceived roles of the participants, and stress and illness data on the participants. The demographic portion of the questionnaire was constructed by the investigator and was needed in order to determine the relationship between particular background variables and self-perceived roles as well as the relationship between certain background variables and stress. The demographic portion of the questionnaire consisted mostly of fixed-alternative items but contained a few open-end items.

The institutional and role data portion of the questionnaire contained fixed alternative items, open-end items, and a section of Likert scaled items. The fixed-alternative items and the open-end items were designed to gather information about the respondents' level of administrative responsibility, methods of becoming aware of their position, method of being selected for their position, tenure status, academic department or unit of tenure, amount of time spent on administrative responsibilities besides the administrative duties. The Likert scaled items consisted of a series of statements designed to ascertain role perception data. Respondents were asked to complete the role perception

statements by selecting from these responses: (1) frequently, (2) often, (3) sometimes, (4) seldom, and (5) never.

The portion of the questionnaire designed to gather information about stress was constructed by utilizing a Likert scale with these responses: (1) strongly agree, (2) agree, (3) uncertain, (4) disagree, and (5) strongly disagree. The principal source influencing the construction of these items was Cooper and Marshall (1976) who provided a framework for examining occupational sources of stress. After conducting an extensive review of the psychological and medical literature, Cooper and Marshall determined that occupational sources of stress are related to factors intrinsic to the job, the individual's role in the organization, career development, organizational structure and climate, relationships within the organization, extra-organizational sources, and individual sources. Utilizing this framework, the investigator developed items specific to sources of stress and tension for the educational administrator.

The illness portion of the questionnaire was extracted from a research project conducted by Parker (1979). Parker conducted a review of the literature and developed a series of stress-linked illnesses and behaviors as manifested in physical effects, drug usage, behavioral effects and use of consulting services. Respondents were requested to indicate the frequency of occurrence of the stress-linked illnesses and behaviors since assuming their present position.

The items which were included in the completed instrument had to be validated. Black administrators who were in attendance at the 1980 American Personnel and Guidance Association conference were asked to complete the instrument and review the items for clarity and relevance. The pilot instrument was then edited and used to solicit information from the black administrators who participated in this study.

Procedure

Two transmittal letters were prepared—one by the investigator (Appendix B) providing the subjects with directions and the purpose of the study, and the other transmittal letter (Appendix C) by Dr. Gloria Smith, faculty director of the study, explaining the important implications of the project and requesting the support of the administrators. On April 22, 1980 these cover letters were mailed with the questionnaire (Appendix A) to the black administrators who were selected to participate in the study. A self-addressed stamped envelope was also enclosed with the questionnaire to facilitate convenience for the subjects to return the completed questionnaire to the investigator.

On May 14, 1980 a follow-up letter (Appendix D) was mailed to all the participants. Although 99 completed questionnaires had already been returned to the investigator, it was necessary to send the follow-up letter to all administrators on the original listing since no coding procedure had been used to identify those who had returned the

questionnaires. This procedure was in keeping with the promise of anonymity of the participants. It was believed that the absence of participant identification on the questionnaire would facilitate more honest responses as well as increase the number of responses.

A total of 156 questionnaires were returned, constituting a 67 percent return rate. Seven of those returned questionnaires were not usable because of the nature of the positions as described in the job titles (i. e. counselors, laboratory technicians, and financial aid assistant). The usable return rate was 149 out of 232 or 64.2 percent.

Hypotheses

The data obtained from the questionnaires were used to test the five hypotheses which were listed in Chapter I. The hypotheses were stated in the null form and tested at the 0.05 level of significance. The hypotheses were listed as follows:

Null Hypothesis 1: There is no difference in the amount of stress experienced by black administrators who have high self-perceived role functions and the amount of stress experienced by black administrators who have low self-perceived role functions

Alternative Hypothesis 1: There is a significant difference in the amount of stress experienced by black administrators who have high self-perceived role functions and the amount of stress experienced by black administrators who

have low self-perceived role functions

Null Hypothesis 2: There are no relationships between the self-perceived role functions of black administrators and each variable: age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job

Alternative Hypothesis 2: There are relationships between the self-perceived role functions of black administrators and each variable: age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job

Null Hypothesis 3: There are no relationships between the amount of stress experienced by black administrators and each variable: age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job

Alternative Hypothesis 3: There are relationships between the amount of stress experienced by black administrators and each variable: age, sex, marital status, level of job responsibility, income level, level of education and length of time in the job

Null Hypothesis 4: There is no difference in the amount of stress experienced by black administrators who have high role conflict and ambiguity functions and the amount of stress experienced by black administrators who have low role conflict and ambiguity functions

Alternative Hypothesis 4: There is a significant

difference in the amount of stress experienced by black administrators who have high role conflict and ambiguity functions and the amount of stress experienced by black adminstrators who have low conflict and ambiguity functions

Null Hypothesis 5: There is no difference in the amount of stress experienced by black administrators who have high illness functions and the amount of stress experienced by black administrators who have low illness functions

Alternative Hypothesis 5: There is a significant difference in the amount of stress experienced by black administrators who have high illness functions and the amount of stress experienced by black administrators who have low illness functions

Treatment of Data

The data from the questionnaire were analyzed by use of the facilities of the computer laboratory at Michigan State University. The SPSS computer programs for frequencies, cross tabulations, ANOVA, and Chi Squares were used to analyze the five hypotheses.

The variables identified in the hypotheses were: stress, self-perceived role, age, sex, marital status, level of job responsibility, level of income, level of education, length of time in the job, role conflict and ambiguity, and illness. The variables were operationally treated in the following manner:

Stress--Two levels of the stress variable were determined by first finding the mean value for items 1 through 25 of the stress portion of the questionnaire. These items were recoded so that low numbers represented low stress and higher numbers represented high stress. Mean scores were determined and used as a basis for determining two levels of stress. Mean scores that are less than or equal to 3 represented low stress and those scores greater than 3 and less than or equal to 5 were used as high stress functions.

Self-Perceived Role--Two levels of the self-perceived role function were determined by utilizing the items on the questionnaire relating to role perceptions. These items were included in the institutional and role data section of the questionnaire--numbers 1 and 9 through 19. Mean scores for the self-perceived role variable were determined and those mean scores equal to or less than 3 were used as low self-perceived role functions. Those mean scores greater than 3 and less than 5 were used as high self-perceived role functions.

Age--The chronological ages of the respondents were categorized according to years in the following manner: (1) 20-29, (2) 30-39, (3) 40-49, (4) 50-59, and (5) 60 and above.

Sex--The sex variable was categorized as: (1) male and (2) female.

Marital status--The categories for this variable were: (1) single, (2) married, (3) divorced, (4) divorced and remarried, and (5) separated. The category "widowed"

had been included on the questionnaire but since no respondents checked this category it was deleted.

Level of Job Responsibility--The responses to the request for specific job titles were categorized in the following areas which represented the levels of job responsibility: (1) presidents, vice-presidents and provosts; (2) deans, assistant deans and associate deans; (3) program directors, program managers, department chairmen and supervisors; (4) program coordinators and project coordinators; and (5) administrative assistants and administrative officers.

Level of Income--The categories for this variable were: (1) Below $20,000, (2) $20,000 to $29,999, (3) $30,000 to $39,999, (4) $40,000 to $49,999 and (5) $50,000 and over.

Level of Education--These categories represented the highest degree possessed and were coded as follows: (1) no degree, (2) bachelor's degree, (3) master's degree, (4) specialist's degree and (5) doctorate degree.

Length of Time in the Job--This variable was categorized according to years in the following manner: (1) less than 1 year, (2) 1 to 4, (3) 5 to 7, (4) 8 to 10, and (5) over 10 years.

Role Conflict and Ambiguity--Two levels of the role conflict and ambiguity variable were determined by use of items on the questionnaire relating to role conflict and ambiguity which are included in the role portion of the questionnaire. These items are numbers 10, 12, and 16 through 19. Mean scores for the role conflict and ambiguity

variables were determined. Those scores equal to or less than 3 were used as the low role conflict and ambiguity level and those scores greater than 3 and less than or equal to 5 were used as the high role conflict and ambiguity level.

Illness—Two levels of the illness variable were determined by first finding the mean value for items 1 through 34 of the illness portion of the questionnaire. These items were recoded so that the number one represented low (less) illness, number 2 was coded to equal zero, and number 3 was coded to equal high (more) illness. Mean scores greater than or equal to 1 and less than or equal to 2 represented low illness. Those scores greater than 2 and less than or equal to 3 were coded as high illness.

It is recognized that the responding subjects in this study represented a convenience sample and not a random sample. However, statisticians have concluded that this type of analysis can be carried out. Selvin (1970) pointed out that designing nonexperimental studies so that tests of significance can be used validly is possible. The tests are applicable when all relevant variables have been controlled for either by prior design as in randomization or after the data has been collected. For example, biases can be controlled by making sure that the survey design encompasses all pertinent variables. In this study design, race and employment in predominantly white institutions are important variables that have been controlled in the study design. Since the respondents are all black, they are quite similar

on many other extraneous variables, given their histories of discrimination and minority status. This similarity is viewed as a control of the effect of some extraneous variables. While randomization is better, when possible, it must be recognized that even randomization does not eliminate variables but it removes the systematic effect of uncontrolled variables.

Cornfield and Tukey (1956) support carrying out this type of analysis where the c columns are regarded as fixed. They believe the analyses will have the same mean squares as they would if they were taken as a random sample. Cornfield and Tukey stipulate that the question of these analyses is not in their validity but in the limited inferences that can be made from them.

> We cannot point to a specific population from which the c columns were a random sample, yet the final conclusion is certainly not to just these c columns. We are likely to be better off . . . by introducing an unspecified population of columns "like those observed," and making the inference to the mean of this population. (p. 913)

Summary tables were used to display data from the analyses. Additional descriptive analyses were used to summarize the demographic characteristics of the respondents.

Summary

This chapter has focused on a discussion of the research design and methodology. Specifically, the following areas were presented: a description of the population, the characteristics of the subjects, the construction of the instrument, the data collection procedure, a statement of the

hypotheses, and the treatment of the data.

CHAPTER IV

ANALYSIS OF DATA

Introduction

In this chapter the data extracted from the questionnaire will be analyzed to test the five hypotheses which were presented in Chapter III. The respondents were 149 black administrators from the fifteen public four year institutions of higher education in Michigan. Part I of this chapter is a testing of the hypotheses. This section includes: (1) presentation of the analysis of variance which compares the administrators with the high and low self-perceived role functions with high and low stress levels, (2) presentation of cross tabulation and Chi Square data which shows the relationship between the role functions of the administrators and age, marital status, sex, level of job responsibility, income level, level of education and length of time in the job, (3) presentation of cross tabulation and Chi Square data which shows the relationship between the stress functions of the administrators and age, marital status, sex, level of job responsibility, income level, level of education and length of time in the job, (4) presentation of the analysis of variance which compares the administrators who have high and low role conflict-ambiguity functions with high and low stress levels, and

(5) presentation of the analysis of variance which compares the administrators who have high and low stress levels with high and low illness levels. Part II of this chapter includes additional descriptive analyses of some of the information relating to the positions the administrators hold and the responses to the stress and illness questions. A summary section concludes this chapter.

PART I

Testing of Hypotheses

Null Hypothesis 1: There is no difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by the black administrators who have low self-perceived role functions

Alternative Hypothesis 1: There is a significant difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by the black administrators who have low self-perceived role functions

The results of the analysis of variance are shown in Table 4.1. These results indicate that there is no significant difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by the black administrators who have low self-perceived role functions.

TABLE 4.1

ANALYSIS OF VARIANCE FOR STRESS AND SELF-PERCEIVED ROLE

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Main Effects					
Role	207.338	1	207.338	.747	.389
Explained	207.338	1	207.338	.747	.389
Residual	40776.018	147	277.388		
TOTAL	40983.356	148	276.915		

An F-probability of .747 with 1 degree of freedom was not found to be significant at the 0.05 level of confidence. The difference in the self-perceived role means (68.76 and 66.31) was not significant. Therefore, the null hypothesis was not rejected in favor of the alternative hypothesis.

Null Hypothesis 2: There are no relationships between the self-perceived role functions of the black administrators and the variables of age, sex, marital status, level of job responsibility, level of income, level of education, and length of time in the job

Alternative Hypothesis 2: There are relationships between the self-perceived role functions of the black administrator and the variables of age, sex, marital status, level of job responsibility, level of income, level of education, and length of time in the job

The relationships among the categorical variables of self-perceived role and age are seen in Table 4.2. The two levels of self-perceived role (low self-perceived role and high self-perceived role) were cross tabulated with the five categories of age (20-29, 30-39, 40-49, 50-59, and 60 or older). All age categories except 50-59 years old had a majority of their respondents in the high self-perceived role group. The 50-59 years old category had 53.3% with low self-perceived roles and 46.7% with high self-perceived roles. The Chi Square technique was used to test the influence of age on self-perceived role. The Chi Square value of 7.17538 with 4 degrees of freedom was not

TABLE 4.2

CROSS TABULATION OF SELF-PERCEIVED ROLE BY AGE

	20-29 years	30-39 years	40-49 years	50-59 years	60 years or older	
Low self-perceived role	N=13 48.1%	N=23 35.4%	N=10 25.6%	N=8 53.3%	N=0 0%	
High self-perceived role	N=14 51.9%	N=42 64.6%	N=29 74.4%	N=7 46.7%	N=3 100%	
Column Total	N=27 18.1%	N=65 43.6%	N=39 26.2%	N=15 10.1%	N=3 2.0%	N=149 100%

Chi Square = 7.17538 with 4 degrees of freedom.
Not significant at α = 0.05.

significant at the 0.05 level of confidence. Therefore, it can be inferred that self-perceived role is not significantly related to age.

Table 4.3 visually indicates the results of the cross tabulation of self-perceived role by sex. Of the 82 males responding, 23.2% indicated low self-perceived role functions while 76.8% indicated high self-perceived role functions. Thirty-five (52.2%) of the 67 responding females indicated low self-perceived role functions while 32 (47.8%) indicated high self-perceived role functions. The males showed noticeably higher self-perceived roles than the females. The Chi Square statistic of 12.25448 with 1 degree of freedom was found to be significant at the 0.05 level of confidence. Therefore, it can be concluded that there is a relationship of dependence between self-perceived role and sex.

A graphic representation of the cross tabulation of self-perceived role by marital status is seen in Table 4.4. The greatest number of administrators (N=92) were married while 23 were single, 22 divorced, 7 were divorced and remarried, and 5 were separated. The married respondents showed the highest percentage (71.7%) of self-perceived role function. Only the single respondents show a high self-perceived role function of under fifty percent. The Chi Square value of 7.02789 with 4 degrees of freedom was not significant at the 0.05 level of confidence, therefore inferring that self-perceived role is independent of marital

TABLE 4.3

CROSS TABULATION OF SELF-PERCEIVED ROLE BY SEX

	Male	Female	
Low self-perceived role	N=19 23.2%	N=35 52.2%	
High self-perceived role	N=63 76.8%	N=32 47.8%	
Column Total	N=82 55.0%	N=67 45.0%	N=149 100%

Chi Square = 12.25448 with 1 degree of freedom.
Significant at = 0.05.

TABLE 4.4

CROSS TABULATION OF SELF-PERCEIVED ROLE BY MARITAL STATUS

	Single	Married	Divorced	Divorced and Remarried	Separated	
Low self-perceived role	N=12 55.2%	N=26 28.3%	N=11 50.0%	N=3 42.9%	N=2 40.0%	
High self-perceived role	N=11 47.8%	N=66 71.7%	N=11 50.0%	N=4 57.1%	N=3 60.0%	
Column Total	N=23 15.4%	N=92 61.7%	N=22 14.8%	N=7 4.7%	N=5 3.4%	N=149 100%

Chi Square = 7.02789 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

status.

The cross tabulation of self-perceived role function by level of education is revealed in Table 4.5. Five levels of education were cross tabulated with two levels of stress. A general trend was seen which indicated that as level of education increased, the percentage of respondents with high self-perceived role function increased. As level of education decreased, the percentage of respondents with low self-perceived role function increased. The Chi Square value of 19.88619 with 4 degrees of freedom is significant at the 0.05 level of confidence. Thus, it can be concluded that a dependent relationship exists between self-perceived role and level of education.

Table 4.6 is a visual representation of the cross tabulation of self-perceived role by length of time on the job. The high and low self-perceived role functions were cross tabulated with 5 categories of length of time on the job. These administrators who had been on the job less than one year were the only group who registered a greater percentage of low self-perceived roles. While all other length of time on the job categories had a greater percentage of high self-perceived role function than low self-perceived role function, no definite pattern was established. The Chi Square statistic of 6.57367 with 4 degrees of freedom was not significant at the 0.05 level of confidence, thus inferring that self-perceived role is independent of length of time on the job.

TABLE 4.5

CROSS TABULATION OF SELF-PERCEIVED ROLE BY LEVEL OF EDUCATION

	No degree	Bachelors degree	Masters degree	Specialist degree	Doctoral degree	
Low self-perceived role	N=2 100%	N=25 58.1%	N=19 31.7%	N=2 33.3%	N=4 15.8%	
High self-perceived role	N=0 0%	N=18 41.9%	N=41 68.3%	N=4 66.7%	N=32 84.2%	
Column Total	N=2 1.3%	N=43 28.9%	N=60 40.3%	N=6 4.0%	N=38 25.5%	N=149 100%

Chi Square = 19.88619 with 4 degrees of freedom
Significant at $\alpha = 0.05$

TABLE 4.6

CROSS TABULATION OF SELF-PERCEIVED ROLE BY LENGTH OF TIME ON THE JOB

	Less than 1 year	1-4 years	5-7 years	8-10 years	over 10 years	
Low self-perceived role	N=12 52.5%	N=25 39.7%	N=6 23.1%	N=6 24.0%	N=5 41.7%	
High self-perceived role	N=11 47.8%	N=38 60.3%	N=20 76.9%	N=19 76.0%	N=7 58.3%	
Column Total	N=23 15.4%	N=63 42.3%	N=26 17.4%	N=25 16.8%	N=12 8.1%	N=149 100%

Chi Square = 6.57367 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

The relationships among the two levels of self-perceived role and the five levels of income are seen in Table 4.7. Those administrators earning less than $20,000 per year had the greatest percentage of low self-perceived role. As the level of income increased, the percentage of high self-perceived role function also increased and the percentage of low self-perceived role function decreased. The Chi Square value of 26.41919 with 4 degrees of freedom is significant at the 0.05 level of confidence. Therefore, it can be concluded that self-perceived role is significantly related to level of income.

Table 4.8 shows the cross tabulation of 5 levels of job responsibility with 2 levels of self-perceived role. The results show that as the level of job responsibility increased, the percentage of respondents with high self-perceived role functions also increased. Only the lowest level of administrator (specialist) registered a noticeably large percentage of self-perceived role function. The Chi Square of 40.61565 with 4 degrees of freedom is significant at the 0.05 level of confidence. Therefore, it can be concluded that there is a relationship of dependence between level of job responsibility and level of self-perceived role function.

The results of the cross tabulations and Chi Square statistics revealed that there are relationships of dependence between the levels of self-perceived role and the variables of sex, level of education, level of income and

TABLE 4.7

CROSS TABULATION OF SELF-PERCEIVED ROLE BY LEVEL OF INCOME

	Below $20,000	$20,000 to $29,000	$30,000 to #39,000	$40,000 to $49,000	$50,000 and over	
Low self-perceived role	N=35 58.3%	N=15 30.6%	N=4 16.7%	N=0 0%	N=0 0%	
High self-perceived role	N=25 41.7%	N=34 69.4%	N=20 83.3%	N=12 100%	N=4 100%	
Column Total	N=60 40.3%	N=49 32.9%	N=24 16.1%	N=12 8.1%	N=4 2.7%	N=149 100%

Chi Square = 26.41919 with 4 degrees of freedom
Significant at $\alpha = 0.05$

TABLE 4.8

CROSS TABULATION OF SELF-PERCEIVED ROLE BY LEVEL OF JOB RESPONSIBILITY

	Presidents Vice-Presidents Provosts	Deans	Program Directors	Coordinators	Specialists	
Low Stress	N=1 10.0%	N=2 16.7%	N=14 19.4%	N=4 40.0%	N=33 73.3%	
High Stress	N=9 90.0%	N=10 83.3%	N=58 80.6%	N=6 60.0%	N=12 26.7%	
Column Total	N=10 6.7%	N=12 8.1%	N=72 48.3%	N=10 6.7%	N=45 30.2%	N=149 100%

Chi Square = 40.61565 with 4 degrees of freedom
Significant at $\alpha = 0.05$

level of job responsibility. However, there were no relationships of dependence between the levels of self-perceived role of the black administrators and the variables of age, marital status and length of time on the job. Therefore, the null hypothesis is accepted.

Null Hypothesis 3: There are no relationships between the amount of stress experienced by black administrators and the variables of age, sex, marital status, level of job responsibility, level of income, level of education, and length of time in the job

Alternative Hypothesis 3: There are relationships between the amount of stress experienced by black administrators and the variables of age, sex, marital status, level of job responsibility, level of income, level of education, and length of time in the job

The relationships among the categorical variables of stress and age are seen in Table 4.9. The two levels of stress (high stress and low stress) were cross tabulated with the five age groupings (20-29, 30-39, 40-49, 50-59, and 60 or older). The largest number of respondents (65) were in the 30-39 category. Thirty-nine respondents were in the 40-49 category, 27 respondents in the 20-29 category, 15 respondents in the 50-59 category, and only 3 respondents 60 years old or older. The largest percentage of each age grouping fell in the low stress category. The largest percentage of high stress (36.9%) was reported by the 30-39 age category. The Chi Square technique was

TABLE 4.9

CROSS TABULATION OF STRESS BY AGE

	20-29 years	30-39 years	40-49 years	50-59 years	60 years or older	
Low Stress	N=20 74.1%	N=41 63.1%	N=29 74.4%	N=13 86.7%	N=3 100%	
High Stress	N=7 25.9%	N=24 36.9%	N=10 25.6%	N=2 13.3%	N=0 0%	
Column Total	N=27 18.1%	N=65 43.6%	N=39 26.2%	N=15 10.1%	N=3 2.0%	N=149 100%

Chi Square = 5.3467 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

used to test the influence of age on stress. The Chi Square value of 5.3467 with 4 degrees of freedom was not found to be significant at the 0.05 level. Therefore, it can be inferred that stress is not significantly related to age.

Table 4.10 graphically indicates the results of the cross tabulation of stress by sex. As indicated, there were 82 (55%) male respondents and 67 (45%) female respondents. Twenty-two percent of the males indicated high stress while 37.3% of the females indicated high stress. The Chi Square statistic was computed to assess the statistical significance of the relationships between the cross tabulated variables. The Chi Square value of 4.23846 with 1 degree of freedom is significant at the 0.05 level. Therefore, it can be inferred that there is a relationship of dependence between stress and sex.

A graphic representation of the cross tabulation of stress by marital status is seen in Table 4.11. The table shows that the majority of the responding administrators (61.7%) were married and the least number were separated (3.4%) and divorced and remarried (4.7%). All marital status categories reflected a high incidence of low stress with only the category of divorced and remarried reflecting a noticeable showing of high stress (42.9%). The Chi Square value of 1.40653 with 4 degrees of freedom was not significant at the 0.05 level, therefore inferring that stress is independent of marital status.

TABLE 4.10

CROSS TABULATION OF STRESS BY SEX

	Male	Female	
Low Stress	N=64 78.0%	N=42 62.7%	
High Stress	N=18 22.0%	N=25 45.0%	
Column Total	N=82 55.0%	N=67 45.0%	N=149 100%

Chi Square = 4.23846 with 1 degree of freedom
Significant at $\alpha = 0.05$

TABLE 4.11

CROSS TABULATION OF STRESS BY MARITAL STATUS

	Single	Married	Divorced	Divorced and Remarried	Separated	
Low Stress	N=15 65.2%	N=67 72.8%	N=16 72.7%	N=4 57.1%	N=4 80.0%	
High Stress	N=8 34.8%	N=25 27.2%	N=6 27.3%	N=3 42.9%	N=1 20.0%	
Column Total	N=23 15.4%	N=92 61.7%	N=22 14.8%	N=7 4.7%	N=5 3.4%	N=149 100%

Chi Square = 1.40653 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

The cross tabulation of stress by level of education is revealed in Table 4.12. The two levels of stress (low and high) were cross tabulated with five levels of education ranging from those who had no college degree and including the 43 with a bachelors degree, 60 with a master's degree, 6 with a specialists degree and 38 with a doctoral degree. Only those administrators in the specialist degree category showed a greater percentage of high stress than low stress. The Chi Square value of 5.79778 with four degrees of freedom was not found to be significant at the 0.05 level. Therefore, it can be concluded that stress is independent of level of education of the black administrators.

Table 4.13 is a visual representation of the cross tabulation of stress by length of time on the job. The high and low stress categories were cross-tabulated with the five categories of length of time on the job (less than one year, 1-4 years, 5-7 years, 8-10 years, and over 10 years). High stress was not dominant in any time on the job category. The Chi Square of 6.34523 with four degrees of freedom was not significant at the 0.05 level, thus it is inferred that stress is independent of length of time on the job.

The relationships among the two levels of stress and the five levels of income are represented graphically in Table 4.14. The highest percentages of low stress were registered by those administrators in the high income

TABLE 4.12

CROSS TABULATION OF STRESS BY LEVEL OF EDUCATION

	No degree	Bachelors degree	Masters degree	Specialist degree	Doctoral degree	
Low Stress	N=1 50.0%	N=31 72.1%	N=42 70.0%	N=2 33.3%	N=30 78.9%	
High Stress	N=1 50.5%	N=12 27.9%	N=18 30.0%	N=4 66.7%	N=8 21.1%	
Column Total	N=2 1.3%	N=43 28.9%	N=60 40.3%	N=6 4.0%	N=38 25.5%	N=149 100%

Chi Square = 5.79778 with 4 degrees of freedom
Not significant at $\alpha = 0.05$.

TABLE 4.13

CROSS TABULATION OF STRESS BY LENGTH OF TIME ON THE JOB

	Less than 1 year	1-4 years	5-7 years	8-10 years	over 10 years	
Low Stress	N=20 87.0%	N=39 61.9%	N=19 73.1%	N=18 72.0%	N=10 83.4%	
High Stress	N=3 13.0%	N=24 38.1%	N=7 26.9%	N=7 28.0%	N=2 16.7%	
Column Total	N=23 15.4%	N=63 42.3%	N=26 17.4%	N=25 16.8%	N=12 8.1%	N=149 100%

Chi Square = 6.34523 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

TABLE 4.14

CROSS TABULATION OF STRESS BY LEVEL OF INCOME

	Below $20,000	$20,000 to 29,999	$30,000 to 39,999	$40,000 to 49,999	$50,000 and over	
Low Stress	N=42 70.0%	N=29 59.2%	N=20 83.3%	N=11 91.7%	N=4 100%	
High Stress	N=18 30.0%	N=20 40.8%	N=4 16.7%	N=1 8.3%	N=0 0	
Column Total	N=60 40.3%	N=49 32.9%	N=24 16.1%	N=12 8.1%	N=4 2.7%	N=149 100%

Chi Square = 9.27332 with 4 degrees of freedom
Significant at α = 0.05

categories, namely, $30,000 to $39,000; $40,999 to $49,999; and $50,000 and over. The Chi Square of 9.27332 was found to be significant at the 0.05 level. Thus, it can be inferred that there is a dependent relationship between stress and level of income.

The cross tabulation of stress by level of job responsibility is represented in Table 4.15. The administrators' job responsibilities were categorized in five levels of responsibility: (1) presidents, vice-presidents, provosts and assistant provosts, (2) deans, assistant deans and associate deans, (3) program directors, supervisors, and managers, (4) coordinators, and (5) specialists and administrative assistants. These five levels of job responsibility were cross tabulated with two levels of stress. Each job category reported a greater percentage of low stress with only coordinators and specialists reporting any noticeably high stress, 40% and 37.2% respectively. The Chi Square of 8.28867 with four degrees of freedom was not significant at the 0.05 level, thus inferring that stress is independent of level of job responsibility.

The results of the cross tabulation and Chi Square statistics revealed that there are relationships of dependence between the amount of stress experienced by black administrators and the variables of sex and level of income. However, there were no relationships of dependence between the amount of stress experienced by black administrators and the variables of age, marital status, level of

TABLE 4.15

CROSS TABULATION OF STRESS BY LEVEL OF JOB RESPONSIBILITY

	Presidents Vice-Presidents Provosts	Deans	Program Directors	Coordinators	Specialists	
Low Stress	N=9 90%	N=12 100%	N=50 69.4%	N=6 60%	N=29 64.4%	
High Stress	N=1 10%	0	N=22 30.6%	N=4 40%	N=16 37.2%	
Column Total	N=10 6.7%	N=12 8.1%	N=72 48.3%	N=10 6.7%	N=45 30.2%	N=149 100%

Chi Square = 8.28867 with 4 degrees of freedom
Not significant at $\alpha = 0.05$

education, length of time on the job, and level of job responsibility. The null hypothesis is, therefore, accepted.

Null Hypothesis 4: There is no difference in the amount of stress experienced by black administrators who have high role conflict and ambiguity functions and the amount of stress experienced by black administrators who have low role conflict and ambiguity functions

Alternative Hypothesis 4: There is a significant difference in the amount of stress experienced by black administrators who have high role conflict and ambiguity functions and the amount of stress experienced by black administrators who have low role conflict and ambiguity functions

Table 4.16 is a visual representation of the results of the analysis of variance used to analyze this hypothesis. These results indicate that there is a significant difference in the amount of stress experienced by black administrators who have high role conflict and ambiguity functions and the amount of stress experienced by black administrators who have low role conflict and ambiguity functions. An F-probability of 11.769 with 1 degree of freedom is significant at the 0.05 level of confidence. The difference in the role conflict/ambiguity means (62.06 and 71.17) is significant. Therefore, the null hypothesis is rejected in favor of the alternative hypothesis.

Null Hypothesis 5: There is no difference in the

TABLE 4.16

ANALYSIS OF VARIANCE FOR STRESS AND ROLE CONFLICT/AMBIGUITY

Source of variation	Sum of Squares	DF	Mean Square	F	Significance of F
Main Effects					
Role Conflict and Ambiguity	3037.935	1	3037.935	11.769*	0.001
Explained	3037.935	1	3037.935	11.769*	0.001
Residual	37945.421	147	258.132		
TOTAL	40983.356	148	276.915		

*Significant at $\alpha = 0.05$

amount of stress experienced by black administrators who have high illness functions and the amount of stress experienced by black administrators who have low illness functions

Alternative Hypothesis 5: There is a significant difference in the amount of stress experienced by black administrators who have high illness functions and the amount of stress experienced by the black administrators who have low illness functions

Table 4.17 visually indicates that there is a significant difference in the amount of stress experienced by the black administrators who have high illness functions and the amount of stress experienced by the black administrators who have low illness functions. The F-probability of 10.699 is significant at the 0.05 level of confidence. Therefore, the null hypothesis is rejected in favor of the alternative hypothesis.

PART II

Additional Descriptive Analyses

The biographical portion of the questionnaire was analyzed to determine some of the important demographic variables of the black administrators in higher education in Michigan. Table 3.2 in Chapter III provided some general information about the personal characteristics of the respondents. Additional information specific to the position of the administrators in the institutions is found

TABLE 4.17

ANALYSIS OF VARIANCE FOR STRESS AND ILLNESS

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Main Effects					
Illness	2780.566	1	2780.566	10.699*	0.001
Explained	2780.566	1	2780.566	10.699*	0.001
Residual	38202.790	147	259.883		
TOTAL	40983.356	148	276.915		

*Significant at $\alpha = 0.05$.

in Table 4.18. It was determined that about half (48.3%) of the black administrators perform as program directors, managers, supervisors, or department chairmen. Only 10 (6.7%) held the high positions of president, vice-president or provost. While 93.3% of the respondents reported that they had full-time jobs as administrators, they listed a variety of additional responsibilities that they are called upon to perform. Some of these other responsibilities were teaching both graduate and undergraduate students, counseling, advising, and participation in service and research programs. It was also interesting to note that 71.1% did not feel that their jobs were created as a result of affirmative action policies.

The stress portion of the questionnaire was analyzed by calculating the percentages of responses to the stress variables. The administrators indicated their feelings about selected variables being sources of stress for them. They selected their choices among five response categories: (1) strongly agree, (2) agree, (3) uncertain, (4) disagree, and (5) strongly disagree. As indicated by the responses, the variables which are the greatest sources of stress for the black administrators are too much work, time pressures, role conflict and ambiguity, inadequate pay, institutional policies, and mood of the environment (racist, sexist, isolated, apathetic). A compilation of the percentages of responses to the sources of stress is seen in Table 4.19.

TABLE 4.18

CHARACTERISTICS OF THE RESPONDENTS' POSITIONS

Item	Frequency	Percent
SPECIFIC JOB TITLES		
Presidents, Vice Presidents, Provosts	10	6.7
Deans, Assistant Deans, Assoc. Deans	12	8.1
Program Directors, Managers, Dept. Chairmen, Supervisors	72	48.3
Program and Project Coordinators	10	6.7
Administrative Assistants and Officers	45	30.2
METHOD OF BEING HIRED		
Recommendation of faculty committee	14	9.4
Screening committee of administrators	43	28.9
Recommendation of higher-level administrator	50	33.6
Promotion from a lower position	34	22.8
Screening committee of faculty & students	4	2.7
Screening committee of faculty and administrators	3	2.0
Grant and fund development	1	0.7
METHOD OF FIRST BECOMING AWARE OF POSITION		
Encouraged to apply by other administrator	76	51.0
Saw the position advertised	36	24.2
Was informed by a faculty colleague	13	8.7
Result of promotion	11	7.4
Informed by a friend	5	3.4
Result of reorganization	2	1.3
Created the position	6	4.0
JOB CREATED BECAUSE OF AFFIRMATIVE ACTION		
Yes	43	28.9
No	106	71.1
TIME SPENT AS AN ADMINISTRATOR		
Full-time	139	93.3
Part-time	10	6.7

TABLE 4.19

PERCENTAGES OF RESPONSES TO SOURCES OF STRESS FOR RESPONDENTS

Source of Stress	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. Too much work	22.8	22.8	16.1	30.2	8.1
2. Too little work	4.0	2.0	9.4	28.9	55.7
3. Poor physical working conditions	6.0	7.4	9.4	38.3	38.9
4. Time pressures	20.1	37.6	10.1	25.5	6.7
5. Decision-making pressures	11.4	28.2	12.1	36.2	12.1
6. Role conflict and ambiguity	18.8	24.8	14.8	27.5	14.1
7. Too much responsibility for people	6.7	14.8	15.4	40.9	22.1
8. Lack of participation in decision making	10.1	17.4	11.4	39.6	21.5
9. Lack of job security	7.4	12.8	17.4	32.2	30.2
10. Inadequate pay	30.2	30.2	10.7	16.8	12.1
11. Feelings of incompetency	3.4	4.7	12.1	32.2	47.7
12. Thwarted ambition	13.4	14.1	21.5	24.2	26.8
13. Lack of opportunity for professional development	16.8	18.8	10.7	30.2	23.5

TABLE 4.19--Continued

Source	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
14. Lack of effective consultation with co-workers	10.7	13.4	8.1	41.6	26.2
15. Lack of effective consultation with superiors	12.8	14.1	7.4	43.0	22.8
16. Inadequate program support from administrators and co-workers	10.7	22.8	10.7	40.9	14.8
17. Restrictions on behavior	6.0	11.4	13.4	40.9	28.2
18. Institutional policies	24.2	33.6	21.5	14.1	6.7
19. Mood of the environment (racist, sexist, isolated, apathetic)	26.8	26.2	16.1	20.8	10.1
20. Difficulties in delegating responsibility	7.4	14.1	8.7	47.7	22.1
21. Job demands versus family demands	10.1	30.2	10.1	32.2	17.4
22. Job demands versus own interests	7.4	30.2	10.7	36.9	14.8
23. Your individual personality	6.0	24.2	14.1	37.6	18.1
24. Your tolerance for ambiguity	15.4	23.5	20.1	30.9	10.1
25. Your ability to cope with change	7.4	11.4	12.1	45.6	23.5

Table 4.20 is a visual representation of the percentages of responses to the stress-linked behaviors that were listed on the questionnaire. The respondents indicated the frequency of occurence of the behaviors or ailments since assuming their positions as compared to before assuming their positions. The behaviors can be summarized as those having physical effects, drug usage, behavioral effects and use of consulting services. Those behaviors or illnesses which are noticeably more frequent since taking the positions are upset stomach, very nervous, smoking, buying spree, tired feeling, consulted with a doctor, back problems, and migraine headaches.

Summary

Chapter IV focused on the presentation of the analysis of data from the survey questionnaire. The results of the analyses of the five hypotheses lead to the conclusion that:

1. There is no significant difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by black administrators who have low self-perceived role functions.

2. There are relationships of dependence between the levels of self-perceived role and the variables of sex, level of education, level of income and level of job responsibility. However, there were no relationships of

TABLE 4.20

PERCENTAGES OF RESPONSES TO
STRESS-LINKED ILLNESSES AND BEHAVIORS

Behavior or Illness	More than before taking this position	Never had behavior or same	Less than before taking this position
1. Loss of appetite	10.1	81.9	8.1
2. Upset stomach	26.2	69.8	4.0
3. Very nervous	22.8	67.8	9.4
4. Trembling hands	6.7	81.9	11.4
5. Nightmares	8.1	79.9	12.1
6. Smoking	22.8	67.8	9.4
7. Use of tranquilizers	6.0	83.2	10.7
8. Use of amphetamines	4.0	84.6	11.4
9. Use of marijuana	2.0	85.9	12.1
10. Buying spree	27.5	61.7	10.7
11. Shortness of breath	12.1	81.9	6.0
12. Dizzy spells	10.7	81.2	8.1
13. Loss of weight	12.1	76.5	11.4
14. Cold sweats	10.1	81.9	8.1
15. Tired feeling	51.7	42.3	6.0
16. Drinking alcohol	18.8	67.8	13.4
17. Consulted with a doctor	23.5	68.5	8.1
18. Consulted with a psychologist, psychiatrist or counselor	6.7	83.2	10.1

TABLE 4.20--Continued

Behavior or illness	More than before taking this position	Never had behavior or same	Less than before taking this position
19. Consulted with clergy	5.4	83.2	11.4
20. Absent from work due to illness	14.8	71.8	13.4
21. Nailbiting	8.7	83.9	7.4
22. Hypertension or high blood pressure	16.8	75.8	7.4
23. Skin problems	12.8	81.2	6.0
24. Allergies	6.0	87.9	6.0
25. Sexual problems	10.1	79.9	10.1
26. Ulcers	4.7	87.2	8.1
27. Asthma	2.0	89.9	8.1
28. Heart trouble	4.7	89.3	6.0
29. Urinary tract infection	8.1	85.9	6.0
30. Diabetes	4.0	89.9	6.0
31. Cancer	4.0	87.9	8.1
32. Unusual pain	15.4	79.9	4.7
33. Back problems	24.2	69.1	6.1
34. Migraine headaches	22.8	73.2	4.0

dependence between the levels of self-perceived role of the black administrators and the variables of age, marital status and length of time on the job.

3. There are relationships of dependence between the amount of stress experienced by black administrators and the variables of sex and level of income. However, there were no relationships of dependence between the amount of stress experienced by black administrators and the variables of age, marital status, level of education, length of time on the job, and level of job responsibility.

4. There is a significant difference in the amount of stress experienced by black administrators who have high role conflict/ambiguity functions and the amount of stress experienced by black administrators who have low role conflict/ambiguity functions.

5. There is a significant difference in the amount of stress experienced by the black administrators who have high illness functions and the amount of stress experienced by the black administrators who have low illness functions.

Additional descriptive analyses focused on the characteristics of the positions the respondents hold and the percentages of responses to the stress and illness data. A discussion of these findings, along with recommendations and implications for the future will be the focus of Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Introduction

A summary of the purposes of this study will be reviewed in this chapter. A discussion of the implications of the search of the theoretical literature, a description of the population and instrument, the techniques of data analysis, the conclusions and discussions, and recommendations and implications for future research endeavors will also be presented.

Summary

The major purpose of this study was to assess the relationships between stress factors and the self-perceived roles of black administrators in predominantly white public four year institutions of higher education in Michigan. Specifically, this study was aimed at determiniations of: (1) the relationship between stress and self-perceived role, (2) the relationships between self-perceived roles and age, marital status, sex, level of income, level of education, level of job responsibility, and length of time in the job, (3) the relationships between stress and age, marital status, sex, level of income, level of education, level of job responsibility, and length of time in the job, (4) the

relationship between role conflicts/ambiguities and stress, and (5) the relationship between stress and illness. A review of the literature highlighted the diverse nature of the conceptions and formulations related to role theory. Generally, the emphasis placed on the various elements of role theory depends upon the discipline within which it is discussed. However, social scientists and educators support the postulation that one's role is influenced by the expectations that individuals hold for themselves and that others hold for them. The particular role which a person assumes will be determined by what one internally perceives to be situationally appropriate and by the external expectations and demands placed on that person. Roles, then, have ingredients of personal and situational determination.

Anthropologists added another dimension to the concept of role by implying that role determinations involve cultural and background influences. Roles are seen as being highly individualistic in that contributing elements are personal, social and situational. Therefore, black administrators' perceptions of their roles may not be congruent with the general job descriptions nor with the perceptions that others hold for them. When black administrators' personal perceptions are incompatible with organizational demands and expectations a state of conflict results. Role ambiguities often accompany role conflicts. Ambiguities are manifested in a lack of clarity about work, objectives,

scope and responsibilities.

A number of studies were cited from the literature to support the contention that role conflicts and ambiguities are antecedents to stress. Stress can be a threat to the physiological and psychological well-being of pressure-laden employees. Black administrators in predominantly white institutions of higher education are in positions that are quite conducive to role conflicts and ambiguities and therefore are subjected to great amounts of stress. Role perceptions, expectations and conflicts specific to black administrators were delineated by experienced black administrators as sources of stress and disillusionment. These sources of stress include: lack of sensitivity by superiors to the varied demands placed on them, lack of institutional support, the expectation that black administratrators handle all issues relating to minorities, and the general feeling of being isolated and overworked.

The sources of stress for black administrators in predominantly white institutions of higher education must be dealt with if these administrators are to perform their jobs effectively and efficiently. While it is recognized that stress is a natural part of everyone's life, prolonged and excessive stress can lead to illness. Research studies cited in the literature review showed that stress manifests itself in physical changes and mental alterations. Physiologically and behaviorally, some of the disorders which have been linked to stress are cardiovascular disease,

hypertension, skin problems, cancer, ulcers, headaches, sexual dysfunction, excessive smoking and use of alcohol and drugs.

The literature does not empirically document a cause and effect relationship between race and stress. Attempts at establishing a relationship between racial-cultural influences of stress relied mainly on logical reasoning. The literature supports the postulation that the general life styles of blacks are pressure-laden and that blacks experience a high prevalence of stress-related illnesses such as hypertension, alcoholism and heart disease.

The literature relating to the relationship between self-perceived roles and stress factors contains noticeable gaps and methodological weaknesses. There is a scarcity of information related to the stress of education administrators and particularly to black administrators. However, the research review did provide evidence to support the postulation that there is a relationship between stress factors and self-perceived roles of black educational administrators. This study is one effort to bridge the gap in the dearth of information.

The population for this study consisted of the 232 black administrators who were employed in the fifteen four year institutions of higher education in Michigan during the spring of 1980. The total black administrative population was surveyed and the resulting sample was composed of the 149 persons who responded to the survey.

The instrument used in this study was questionnaires developed specifically for this study. The instrument contained data from the areas of biographics, institutions and role, stress and illness. The instrument contained fixed-alternative type items, open-end items, and Likert scaled items.

The analysis of data included the use of one-way analysis of variance, cross tabulation and Chi Square techniques to determine the nature of the relationships specified in the five hypotheses. The F-probability was tested for significance at the 0.05 level. Additional analyses of the biographical data, stress data, and illness data relied on descriptive statistics.

Conclusion and Discussion

The analysis of the hypotheses resulted in the following conclusions and discussion:

1. Findings resulting from the testing of Null Hypothesis 1 indicated that there is no significant difference in the amount of stress experienced by the black administrators who have high self-perceived role functions and the amount of stress experienced by black administrators who have low self-perceived role functions.

This finding is not congruent with the discussion in the literature review. The major proponents of role theory emphasize that cultural influences and social phenomena are determinants of role perceptions. Studies

specific to black administrators like those by Cox (1971) and Moore and Wagstaff (1974) support the theory that black administrators generally perceive their jobs as encompassing more duties and proportionately making a large number of decisions relating specifically to blacks. There is no specific explanation for the lack of finding a significant relationship between self-perceived role and stress in this study. However, it should be noted that after receiving these findings, the researcher conducted an analysis of variance by using only the extremely high self-perceived role means and the extremely low self-perceived role means. This analysis produced an F-probability of 3.978 which was significant at the 0.05 level. These results were not used because 72.5% of the sample cases were missing. However, this does indicate that when more definitive distinctions are made between high and low self-perceived roles, there is reason to believe that a significant relationship between self-perceived role and stress would result.

2. Findings resulting from the testing of Null Hypothesis 2 indicated that there are relationships between self-perceived role functions of black administrators and the variables of sex, level of job responsibility, level of income, and level of education. However, there were no relationships between self-perceived role and age, marital status and length of time in the job.

These findings are supported in the review of the literature. Specifically, they lend support to the

postulation of Sargent (1951) who said that roles have ingredients of cultural, personal and situational determination. Likewise, Parson's "system of orientations" supports the reciprocal nature of interacting variables.

3. Findings resulting from the testing of Null Hypothesis 3 indicated that there are relationships between stress and the variables of sex and level of income while indicating no relationship between stress and age, marital status, level of education, level of job responsibility, and length of time in the job.

This finding is supported in the literature. Siegerest (1943) and Wolff (1954) offered rationalizations that demographic variables and social conditions exert great influence on an individual's disposition to stress and disease. Selye (1956) also postulated that an individual's adaptation response results from the interplay of personal and environmental influences. Parker (1979) found a specific relationship between stress and marital status of school counselors, such that single counselors experience more stress than married counselors. The results of this study indicate that the specified variables of sex and level of income interact to provide a significant relationship to stress.

4. Findings resulting from the testing of Null Hypothesis 4 indicated that there is a significant difference in the amount of stress experienced by the black administrators who have high role conflict/ambiguity functions and

the amount of stress experienced by black administrators who have low role conflict/ambiguity functions.

This finding supports the studies related in the literature. Specifically, there is congruence with the findings of Kahn and his associates (1964) who conducted extensive studies relating to role conflict and ambiguity. Respondents from industrial locations were surveyed and the conclusions were that role conflict and ambiguity had definite emotional costs and resulted in low job satisfaction, low confidence, a high sense of futility, and a high degree of job-related tension.

5. Findings resulting from the testing of Null Hypothesis 5 indicated that there is a significant difference in the amount of stress experienced by the black administrators who have high illness functions and the amount of stress experienced by black administrators who have low illness functions.

This finding parallels the studies related in the literature which show that there is a definite relationship between stress and illness. There is empirical verification which shows a direct linkage between stress and certain specific ailments. More specific to educational administrators, Swent and Gmelch (1977) conducted a study of Oregon school administrators and concluded that when health status was compared to individual stress categories as well as a composite of all stressor items, the level of

health decreased as the level of stress increased.

Recommendations and Implications

The findings of this study have far-reaching implications for black and minority administrators, for their majority co-workers, and for educational institutions which train and employ black administrators. One implication of this study is to sensitize black administrators to the subtleties and uniqueness of their experience. It is implied herein that black administrators should prepare themselves both academically and psychologically for their unique tasks.

While there are no ready prescriptions for black administrators to use in coping with stress, they should be aware of the elements and variables that are stressful to them and recognize the personal signs of stress. By examining their own experiences and predicaments, by becoming aware of the forces which are stress inducing as well as those which are stress reducing, black administrators can try alternative ways of carrying out their daily functions or at least be prepared to meet them head-on. Recommended mechanisms for coping with administrative stress include: being aware of one's own individual personality and tolerance level; understanding that stress alters performance; recognizing the physical signs of stress; recognizing the importance to organize and prioritize things; and developing a system of alternatives to deal with stress.

For white administrators this study offers the opportunity for them to more clearly understand the unique position of the minority administrator. White educators can raise their own awareness and the awareness of the institutions which are responsible for the education and employment of future black administrators.

Recommendations for future implementation by educational institutions include the use of black consultants in general consultation and in-service training and continuing education programs. Black consultants have the advantage of their knowledge of potential minority administrative manpower, their ability to validate the kinds of experience and training most effective in the direction of black administrators, and their ability to assist predominantly white institutions in techniques for most effective utilization of black administrators.

It is further recommended that predominantly white institutions of higher education design and implement a research base by which the problems of black administrators are more clearly defined, alternatives are developed, and solutions are tested. These institutions have the further responsibility to design and teach empathetic skills for white, black and all students who will be working in each other's cultures on a variety of levels. This can make an important difference for their community, their people, and for society.

Specific implications for future research are:

1. This study should be replicated with a national population of black administrators in higher education to determine if the findings of this study are generalizable to the national population.

2. Studies should be designed using black administrators from predominantly black institutions of higher education and black adminstrators from predominantly white institutions of higher education to determine if there are differences in their perceived role function and stress function relationships.

3. Studies should be designed with a population of white administrators in predominantly white institutions of higher education and black administrators in predominantly white institutions of higher education to determine the effect of race on role perceptions and stressfulness.

4. Social scientists, educators and medical doctors should pool their research efforts in the area of stress. Methodologies, research instruments and perspectives can be refined so that social scientists can become less dependent on nonobjective, self-report measures and medical researchers can add behavioral and attitudinal data to the physiological data.

5. Some of the other research already done on stress should be repeated using multivariate forms of analysis (e. g., multiple-regression analysis) in order to determine how much each potential stressor contributes to the manifestation of stress. Simple correlational analysis

fails to point out the role of intervening variables.

6. This study should be repeated, utilizing a random sample from a national population so that generalizations can be made to a wider group. Also more definitive distinctions between high and low self-perceived role functions could be developed.

APPENDICES

APPENDIX A

APPENDIX A

QUESTIONNAIRE

The responses to this questionnaire will be confidential. You will not be identified by name in the results.

DEMOGRAPHIC DATA

Directions: Please circle the number of the response you choose for each item and fill in the blank where appropriate.

1. What is your age?

    1. 20-29
    2. 30-39
    3. 40-49
    4. 50-59
    5. 60 and above

2. What is your sex?

    1. Male
    2. Female

3. What is your marital status?

    1. Single
    2. Married
    3. Divorced
    4. Divorced and Remarried
    5. Separated
    6. Widowed

4. How many children do you have?

    1. None
    2. One
    3. Two
    4. Three
    5. Four and over

5. Where were you born?

   City_____ State_____

6. What is the highest degree you now hold?

   1. No degree
   2. Bachelor's degree
   3. Master's degree
   4. Specialist degree
   5. Doctorate degree

7. In what area is your highest degree?_____

8. How would you characterize the institution from which you received your undergraduate degree at the time of your graduation?

   1. Predominantly Black private
   2. Predominantly Black public
   3. Predominantly White private
   4. Predominantly White public
   5. Other (specify)_____

9. How would you characterize the institution from which you received your highest degree at the time of your graduation?

   1. Predominantly Black private
   2. Predominantly Black public
   3. Predominantly White private
   4. Predominantly White public
   5. Other (specify)_____

10. How many total years of work experience to you have in education (all levels)?

    1. Less than one year
    2. One - Four
    3. Five - Seven
    4. Eight - Ten
    5. Over Ten years

11. How many total years of work experience do you have in higher education?

    1. Less than one year
    2. One - Four
    3. Five - Seven
    4. Eight - Ten
    5. Over Ten Years

12. How many total years of work experience do you have in your present position?

    1. Less than one year
    2. One - Four
    3. Five - Seven
    4. Eight - Ten
    5. Over Ten years

13. How many years have you been at this institution?_____

14. What is your present yearly salary?

    1. Below $20,000
    2. $20,000 - $29,999
    3. $30,000 - $39,999
    4. $40,000 - $49,999
    5. $50,000 and over

15. How many published books have you written, edited, or co-authored?

    1. None
    2. 1 - 3
    3. 4 - 6
    4. 7 - 9
    5. 10 or more

16. How many published articles have you written, edited, or co-authored?

    1. None
    2. 1 - 3
    3. 4 - 6
    4. 7 - 9
    5. 10 or more

INSTITUTIONAL AND ROLE DATA

1. What is the exact administrative title of the position you now hold?

_____

2. How were you selected for your present position?

    1. By the recommendation of a faculty committee
    2. By a screening committee of administrators
    3. By a higher level administrator
    4. By promotion from a lower level administrative position
    5. Other (specify)_____

3. How did you first become aware of the position you now hold?

   1. Was encouraged to apply by another administrator
   2. Saw the position advertised
   3. Was informed by a faculty colleague
   4. Other (specifiy)_____

4. Do you think the position itself was created primarily as the result of the institution's affirmative action policy?

   1. Yes
   2. No

5. Do you have tenure?

   1. Yes
   2. No

6. Are you in the tenure Track?

   1. Yes
   2. No

If yes, in what department or academic unit are you tenured?

_____

7. Are you a full-time or part-time administrator?

   1. Full-time
   2. Part-time

   If part-time, what percent of your time is devoted to other responsibilities?

   _____

8. If you have other job-related responsibilities besides your administrative duties, what is the nature of these responsibilities?

   1. Teaching graduates
   2. Teaching undergraduates
   3. Research programs
   4. Service programs
   5. Other (specify)_____

Directions: Insert the corresponding numbers which would complete the statements.

1 - Frequently
2 - Often
3 - Sometimes
4 - Seldom
5 - Never

____ (9) I ____ have to make decisions which affect institution-wide policy.

____ (10) I am ____ assigned responsibilities that are not commensurate with my authority.

____ (11) My recommendations are ____ acted upon favorably.

____ (12) I ____ know what is going on in the upper levels of administration.

____ (13) I ____ prepare the budget for my area of responsibility.

____ (14) I am ____ responsible for the identification and interpretation of staffing needs of the people who report to me.

____ (15) I ____ recommend for promotion employees under my supervision.

____ (16) I ____ perform duties that are beyond the normal realm of my job description.

____ (17) I ____ work extra hours because I am performing duties in the service of Blacks and other minorities.

____ (18) I ____ perform services that a White administrator in my position could not perform.

____ (19) I ____ perform services that a White administrator would not perform.

STRESS DATA

Directions: To what extent do you agree or disagree that each of the following statements adequately describes sources of stress or tension for you in your particular job? Indicate your response by drawing a circle around the number which indicates your reply.

1 - Strongly Agree
2 - Agree
3 - Uncertain
4 - Disagree
5 - Strongly Disagree

1.	Too much work	1	2	3	4	5
2.	Too little work	1	2	3	4	5
3.	Poor physical working conditions	1	2	3	4	5
4.	Time pressures	1	2	3	4	5
5.	Decision-making pressures	1	2	3	4	5
6.	Role conflict and ambiguity	1	2	3	4	5
7.	Too much responsibility for people	1	2	3	4	5
8.	No participation in decision-making	1	2	3	4	5
9.	Lack of job security	1	2	3	4	5
10.	Inadequate pay	1	2	3	4	5
11.	Feelings of incompetency	1	2	3	4	5
12.	Thwarted ambition	1	2	3	4	5
13.	Lack of opportunity for professional development	1	2	3	4	5
14.	Lack of effective consultation with co-workers	1	2	3	4	5
15.	Lack of effective consultation with superiors	1	2	3	4	5
16.	Inadequate program support from administrators and co-workers	1	2	3	4	5
17.	Restrictions on behavior	1	2	3	4	5

18.	Institutional policies	1	2	3	4	5
19.	Mood of the environment (racist, sexist, isolated, apathetic)	1	2	3	4	5
20.	Difficulties in delegating responsibility	1	2	3	4	5
21.	Job demands versus family demands	1	2	3	4	5
22.	Job demands versus own interests	1	2	3	4	5
23.	Your individual personality	1	2	3	4	5
24.	Your tolerance for ambiguity	1	2	3	4	5
25.	Your ability to cope with change	1	2	3	4	5

Indicate the frequency of the occurrence of the following behaviors or ailments you have exhibited since you have been in your present position as compared to before you took this position.

1 - More than before you took this position
2 - Same as before you took this position or Never had the illness
3 - Less than before you took this position

		More	Never or Same	Less
1.	Loss of appetite	1	2	3
2.	Upset stomach	1	2	3
3.	Very nervous	1	2	3
4.	Trembling hand	1	2	3
5.	Nightmares	1	2	3
6.	Smoking	1	2	3
7.	Use of tranquilizers	1	2	3
8.	Use of amphetamines	1	2	3
9.	Use of marijuana	1	2	3
10.	Buying spree	1	2	3
11.	Shortness of breath	1	2	3
12.	Dizzy spells	1	2	3
13.	Loss of weight	1	2	3
14.	Cold sweats	1	2	3
15.	Tired feeling	1	2	3
16.	Drinking alcohol	1	2	3
17.	Consulted with a doctor	1	2	3
18.	Consulted with a psychologist, psychiatrist or counselor	1	2	3
19.	Consulted with clergy	1	2	3
20.	Absent from work due to illness	1	2	3

		More	Never or Same	Less
21.	Nailbiting	1	2	3
22.	Hypertension or high blood pressure	1	2	3
23.	Skin problems	1	2	3
24.	Allergies	1	2	3
25.	Sexual problems	1	2	3
26.	Ulcers	1	2	3
27.	Asthma	1	2	3
28.	Heart trouble	1	2	3
29.	Urinary tract infection	1	2	3
30.	Diabetes	1	2	3
31.	Cancer	1	2	3
32.	Unusual pain	1	2	3
33.	Back problems	1	2	3
34.	Migraine headaches	1	2	3

APPENDIX B

APPENDIX B

INTRODUCTORY LETTER

2614 Cochise Lane
Okemos, Michigan 48864
April 22, 1980

Dear Administrator,

I am a graduate student of higher education and administration at Michigan State University, East Lansing, Michigan, and currently writing a doctoral dissertation. The title of my dissertation is "The Relationship Between Stress Factors and the Self-Perceived Role of Black Administrators in Predominantly White Public Four Year Institutions of Higher Education in Michigan."

Recently I obtained a list of Black adminstrators from your institution and your name was included. You are, therefore, kindly requested to help me in this study by completing the enclosed questionnaire, which may be filled out in approximately twenty minutes.

I realize that this request is an imposition upon your time, however, my graduate committee, including Dr. Gloria Smith, the director of my study, and I feel that this study has significance and importance in our continuous effort to improve the quality of higher education. Assessing the relationship between stress and role perceptions of educational administrators may also be of personal and professional interest to you as an administrator. I will be happy to share the results with you upon request. Your responses will be confidential and will be used for statistical purposes only. Results will be analyzed in aggregate form and under no circumstances will the responses be reported on an individual or institutional basis.

An addressed-stamped envelope is enclosed for your convenience. An immediate response will be greatly appreciated. Thank you in advance for your cooperation.

Sincerely,

Barbara B. Gunnings
Doctoral Student

Enclosures: Letter from Dr. Gloria Smith
Questionnaire
Self-addressed stamped envelope

APPENDIX C

MICHIGAN STATE UNIVERSITY

COLLEGE OF EDUCATION
DEPARTMENT OF COUNSELING AND EDUCATIONAL PSYCHOLOGY

EAST LANSING • MICHIGAN • 48824

May 5, 1980

Dear Fellow Administrator:

Research that has a direct application to the field of administration in higher education can be of tremendous value to those of us who are currently working as administrators, as well as provide the basis for sound educational and training programs for prospective administrators. One particular area of research that needs to be investigated is the relationship between stress and the self-perceived role of black administrators in higher education.

I believe that the research undertaken by Barbara Gunnings, who is completing her doctoral dissertation at Michigan State University, will have important implications for all of us. How we learn to cope with stress can largely determine the future of black administrators in higher education. I support the study undertaken by Ms. Gunnings and hope that you will help her by taking the time to complete the enclosed questionnaire.

Sincerely,

Gloria S. Smith

Gloria S. Smith, Ph.D.
Director of Urban Counseling

APPENDIX D

APPENDIX D

FOLLOW-UP LETTER

2614 Cochise Lane
Okemos, Michigan 48864
May 14, 1980

Dear Administrator:

A few weeks ago I sent you a questionnaire which is designed to aid me in my dissertation study of "The Relationship Between Stress Factors and the Self-Perceived Role of Black Administrators in Predominantly White Public Four Year Institutions of Higher Education in Michigan." The purpose of this communication is to kindly request that you complete and return the questionnaire, if you have not already done so.

As you know, there is a scarcity of black administrators in higher education and the success of this research depends on a high percentage response. If your questionnaire has been returned or is in transit, please disregard this request.

Thank you again for your cooperation and interest.

Sincerely,

Barbara B. Gunnings
Graduate Student

LIST OF REFERENCES

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