HELP-SEEKING ATTITUDES, PREFERENCES, AND BEHAVIOR OF BLACK AND HISPANIC MEDICAL STUDENTS IN MICHIGAN

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ABSTRACT

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There is substantial evidence that indicates an imbalance between the number of heath care professionals and the number of people most in need of health care services. For underrepresented ethnic/racial groups designated as minority (i.e., Blacks, Hispanics and Native Americans), who are underserved by the health care community, increased access to medical care is closely linked to the number of minority group physicians available. In the wake of demographic and educational preparation trends which impede significantly increased numbers of underrepresented minority group students, efforts to maximize the potential of those students admitted to medical school must be considered. The retention of minority group medical students becomes an essential factor in providing care to underserved populations.

The purpose of this study was to examine the help-seeking attitudes, preferences and behavior of Black and Hispanic medical students in Michigan, and to determine the relationship of these factors to the academic performance of the students.

A self report questionnaire was used to assess each of the dependent variables and to collect associated demographic and academic data from respondents attending the four colleges of medicine in Michigan. The questionnaire included five measures: Part I:

Attitudes Toward Seeking Psychological Help; Part II: Preferences for Potential Help Sources Index; Part III: Problem Experiences and Help Sought; Part IV: Reasons for Not Using Help Resources; and Part V: Academic Performance and Demographics. Statistical procedures used to test hypotheses included both parametric and nonparametic methods.

It was found that Black and Hispanic students did not differ significantly in their in the problems they experienced nor in their attitudes toward seeking psychological help. For Black students more than for Hispanic students an unfavorable assessment of providers is a key reason for not using help resources, while Hispanic students indicate more than Black students having no concern to address. Students reporting greater problem severity were found to use more help resources than were students expressing lesser severity.

The findings of this exploratory study have highlighted some relationships between help seeking attitudes, preferences, and behavior, and student characteristics, problems experienced and academic difficulty. A complex of factors related to who seeks which services to address what concerns have been raised in drawing conclusions from the finding.

Dedicated to my parents Andrew Marion Maybank and Lottie B. Davis Maybank now in memory, but forever in love, for "training me up in the way that I should go" and for encouraging me to be all that I could be, which is boundless in God.

ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

It has been well documented and acknowledged that there are substantial inequities in the delivery of and access to health care services for ethnic/racial minority and disadvantaged populations when compared to the general population. The problem has been a chronic one, and reports clearly highlight the continued imbalance between the number of health care professionals--particularly from underserved and underrepresented populations--and the number of people who need their services, despite growing concern about a surplus of physicians (Hanft & White, 1987).

Although a variety of factors contribute to ethnic/racial minority groups not having adequate access to health care this circumstance may exist, in part, because of a shortage of physicians practicing in high need rural and urban areas where populations are disproportionately low income and minority. An examination of Census Bureau population projections indicates there are expected to be 36 million Blacks and 25 million Hispanics by the year 2000 as compared to 29 million and 17 million, respectively estimated for 1985 (Simpson & Aronoff, 1988). Combining this data with that of the Bureau of Health Professions regarding physician supply projections for the same period, Simpson and Aronoff (1988) report physician to population ratios of 79.7 per 100,000 for Blacks and 94.0 per 100,000 for Hispanics by the year 2000. These figures indicate an increase in Black physician

supply as compared to Black population, and a decrease in Hispanic physician supply as compared to Hispanic population, when 1985 physician to population ratios (53.7 Blacks, 101.8 Hispanics) are the basis for comparison. It is important to note, in view of the projected decrease in the rates for Hispanics and despite the increase for Blacks, these figures do not approach that of the overall physicians to population ratio for the United States, which is estimated to increase from the 1985 ratio of 218.2 per 100,000 to a ratio of 260.0 per 100,000 by the year 2000.

In order to influence statistics which suggest ethnic/racial minority populations will continue to be underserved by, and underrepresented in the medical community, efforts must be targeted toward attracting, providing access for, retaining, and graduating minority and disadvantaged students to become the physicians that change these numbers and ratios and the quality of health care available to the American population as a whole.

Background

In an effort to determine the success of affirmative action programs implemented in the early 1970s to increase the supply of minority physicians and improve the health care of the poor, Keith et al. (1985) conducted a study of the Association of American Medical Colleges' (AAMC) graduating class of 1975. The study examined differences between minority (Blacks, Native Americans, Mexican Americans, mainland Puerto Ricans, and Puerto Ricans from the Commonwealth of Puerto Rico) and non-minority (Caucasians and Asian Americans) graduates based on specialty choice, practice locations, patient population served, and board certification rates.

Consistent with earlier studies, Keith et al. (1985) found that the minority graduates

in their study tended to "serve disproportionately more patients of their own racial or ethnic group," but "did not serve significantly more persons from other racial or ethnic groups than did nonminority physicians" in the study (p.1519). Specifically, fifty-six percent (56%) of the total patient population of Black physicians were Black patients and 30 percent of the patients served by Hispanic physicians were Hispanic. Additionally, Black and Hispanic physicians "cared for a significantly higher percentage of Medicaid patients than did graduates from other ethnic groups," and minority physicians were "practicing in the federally designated health-manpower shortage areas in almost twice the proportion of nonminority graduates."

In a national survey comparing the use of health services by Black and White Americans, Blendon et al. (1989) found significant deficits in the access to health care among Black respondents; additionally, they found a significant underuse of medical services by blacks. The researchers point to the undersupply of physicians and a contributing factor to this problem:

> The undersupply of black physicians and of physicians in general in minority communities also may result in reduced opportunities for medical care. Studies by the Public Health Service on the availability of physicians in minority communities showed that many counties with dense populations have substantially lower ratios of health professionals than similar communities with primarily white populations. (p.280)

The findings presented by Keith et al. (1985) and Blendon et al. (1989) support the need for increasing the numbers of Black and Hispanic physicians in an attempt to increase access to medical care for ethnic/racial minority and low socioeconomic populations.

Efforts to establish parity in the health professions for Black and other underrepresented minority groups have largely focused on increasing the numbers of ethnic/racial minority group students enrolling in medical school. Since the early 1970s, colleges of medicine, along with various public and private agencies, have developed strategies to increase access to medical education for underrepresented ethnic/racial group students. An example of these strategies is the federal initiative under the Health Careers Opportunity Program (HCOP) which has focused on improving access to health careers for minority and otherwise disadvantaged students since 1977. Programs funded under HCOP include a broad array of services along a continuum beginning with preliminary education activities and spanning the education pathway through retention activities which support disadvantaged students through to graduation.

The Association of American Medical Colleges (AAMC) Task Force on Expanding Educational Opportunities in Medicine for Black and Other Minorities proposed in 1970 to increase the proportion of minority students enrolled in schools of allopathic medicine from the existing 2.8 percent for Black Americans to 12 percent by 1975 or 1976, with the long range goal of eliminating barriers to access to the medical profession (Keith et al., 1985). By 1976 the enrollment of all underrepresented ethnic/racial minority group students (Black Americans, Native Americans, Mexican Americans, and mainland Puerto Ricans) in AAMC schools had risen to only 8.2 percent of the total enrollment, with Black Americans representing 6.1 percent of the total enrollment. Statistics presented in the 1990 edition of Minorities & Women in the Health Field, prepared by the U.S. Department of Health and Human Services, indicate that 1988 Census Bureau estimates determined underrepresented minorities to constitute 21.2 percent of the population. Total enrollment figures at AAMC

schools for the same period indicate underrepresented minorities to comprise 10.5 percent of all students enrolled, with Blacks at 6.1 percent, still far short of the goal set for 1976.

These statistics emphasize the complexity of trying to achieve parity for minority physicians when the rate of growth of the underrepresented minority population exceeds the available pool of potential minority physicians.

The past and current efforts to increase the numbers of underrepresented minority group students having access to the medical profession are certainly commendable. The creation of mechanisms which facilitate access aid in insuring a means to the end of increasing the needed supply of minority group physicians. Unfortunately, the additional issues of quantity (i.e., a relatively small number of minority group students in the applicant pool) and quality (i.e., the academic credentials of minority group applicants on average tend to be lower than those of their white counterparts) affect the ability of medical schools to admit sufficient numbers of underrepresented minority group students.

The Second Report of the Council on Graduate Medical Education [COGME] (1990) examines some of the major factors associated with the "deteriorating state of minority representation in medicine." The factors identified as having the most profound impact and therefore requiring "special and immediate attention and action" are:

the deteriorating pool of minority applicants to medical schools;

the growing debt burden of minority students pursuing health careers; and

the persistent shortage of minority faculty in medical schools. (p.21)

With regard to the deteriorating minority applicant pool the COGME report presents and substantiates two conclusions:

Conclusion F-1: The minority applicant pool for medical education continues to

deteriorate.

> Conclusion F-2: Available data indicate that the problem of recruiting minority students to medical school is directly linked to poor early academic preparation and insufficient encouragement. There is both a high dropout rate among minority students and evidence that those who remain in the educational pipeline are often inadequately prepared for study in the health sciences. (p. 21)

Clearly the size and quality of the applicant pool are factors which will affect the future admission of minority students to medical school, but these factors are further complicated by a growing minority population and concern about the ability of educational programs to meet their need for appropriate preliminary education (COGME, 1990). Recommendations resulting from the COGME analysis are:

> Recommendation No. 6: Emphasis should be placed on the development and support of programs which improve the size and quality of the minority applicant pool by focusing on early intervention (e.g., consortia of medical schools, public schools, and community organizations which work together to improve the educational pipeline).
>
> Recommendation No. 7: Priority for Federal funding should be given to medical schools and teaching hospitals that have demonstrated success in the recruitment, enrollment, retention and graduation of underrepresented minority students. (p. 24)

These recommendations acknowledge the need for medical schools to take an active role in cultivating a future pool of minority applicants through partnerships and offer incentives for the schools to be successful in increasing the number of minority physicians.

Rationale

The aforementioned concerns about a shrinking minority applicant pool are certainly important and require the attention of educators at all levels. Of equal, and possibly more immediate, concern is the need to provide an atmosphere conducive to supporting the success of current and incoming minority group medical students. Efforts to increase the supply of minority physicians cannot be limited to "opening the gate"; those efforts must include strategies for insuring success in the process such that completion of medical school is a realistic and attainable conclusion. Attention must be given to maximizing the potential at hand until demographic trends and educational initiatives result in an overall improvement in applicant pool quantity and quality.

Affirmative action programs have focused on equity of opportunity for disenfranchised groups. The recent emphasis on diversity, with a move toward pluralism, at many institutions requires a more conscious examination of what happens to students of diverse backgrounds once they have gained access to the educational system, as well as an examination of the impact on the educational system: if the barriers and constraints to access are diminished, then what is the nature of the environment into which minority group students are ushered, what supports are provided for participation in the educational process, and what effect does an increasingly diverse student population have on the environment?

Educational institutions are faced with the challenge of educating and responding to the needs of a multiethnic and multicultural student population with diverse approaches to learning and diverse needs for successful completion of the educational requirements. Compounding this challenge are the additional demands placed on the institution to create an environment which will maximize the potential of each student to whom it makes a

commitment for education. For the ethnic/racial minority group student at a predominately white institution, consideration must be given to the diversity of needs across different groups and the impact of minority status on educational performance. Institutions of higher education must not only make a commitment to admitting students from underrepresented ethnic/racial groups, but they must simultaneously commit to retaining and graduating these students.

Purpose of the Study

The research presented herein was designed to examine an aspect of what happens to designated minority students admitted to the medical school environment. The study concentrates on student-centered nonacademic concerns and the means by which students chose to address those concerns. Black and Hispanic students have been selected as the focus for this investigation because, of the groups underrepresented in the field of medicine (Blacks, Hispanics, and Native Americans), these groups have the greatest minority representation in medical schools currently. (It should be noted that Asians are not underrepresented in that they represent over 10% of total medical school enrollment while being 2% of the total United States population.) Additionally, the target groups are expected to show the greatest population growth over the next two decades, creating an even greater need for health care services for these populations. If Black and Hispanic physicians are most likely to meet the critical need for health care services of Black and Hispanic populations and lower socioeconomic populations, then medical schools must consider what factors will aid in producing a maximum number of physician from these groups.

The concerns examined in this study are believed to influence student performance and

attainment of the goal of becoming a physician; therefore, these are not simply individual student concerns, but are also institutional concerns which will require institutional responses to increase the probability of student success. Studies have shown that medical students often report concerns about interpersonal relationships and stress related health problems (Dickstein, Stephenson & Hinz, 1990; Parkerson, Broadhead & Tse, 1990). In a study of psychosocial assets and mental health status of Black, White and Hispanic medical students, Pyskoty, Richman and Flaherty (1990) found that minority students entered medical school with some distinct advantages over nonminority students; however, they further found that some of those advantages diminished after one year of medical school. The research reported in this study looks at the health, interpersonal, familial and emotional concerns of the subjects and their means for gaining assistance in addressing those concerns as medical students.

Results of this study are expected to aid in identifying additional tools to be employed in the retention and graduation of ethnic/racial minority group students attending non-minority medical schools. The emphasis is on examining nonacademic factors which may negatively impact Black and Hispanic students' performance in medical school resulting in attrition. The attitudes, preferences, use of help sources, and reasons for not using help sources, which relate to students accessing assistance in addressing these concerns, are more closely examined in an attempt to identify appropriate interventions which may aid in improving minority medical student retention.

Research Questions

Under investigation in this study are three broad research questions each having specific hypotheses which are tested through the data analysis. The research questions are:

1. What is the relationship between students' personal characteristics and their attitudes toward seeking help, uses of help resources and reasons for not using help resources?
2. How does problem severity relate to the number and type of help sources used by students to address the categories of nonacademic problems?
3. How do preference for sources of help, problem severity, and help sources used by students to address nonacademic concerns relate to academic difficulty experienced by students?

These questions have been chosen to explore means by which medical schools, having made the commitment to increasing the number of minority group students admitted, can insure providing the necessary supports for the retention and graduation of a population of physicians seen as crucial to the health care delivery system. By examining the nature of the concerns of this group of students and the combinations of support services they seek hopefully, institutional resources will be targeted toward programmatic efforts consistent with the identified needs.

Scope and Limitations

In order to limit the scope of this study, the population of investigation was established as those groups both underrepresented in the health care profession and determined to have the greatest impact on services to populations determined to be most limited in their access to health care. Black and Hispanic students were targeted because, although they are underrepresented among physicians and medical students, they represent

a more substantial number of students enrolled and therefore are more accessible when compared with the only other underrepresented minority group, which is Native Americans. The colleges of medicine in the state of Michigan were selected because they provided a reasonable and convenient population from which to draw a sample.

The sparsity of literature available on the nonacademic concerns of medical students and their use of support services aided in establishing the research variables for the study. The investigator recognized the potential for including additional variables (e.g. personality measures, locus of control, racial identification) but also recognized the importance of designing the questionnaire which could be responded to early requiring a limited amount of time, given the observed time pressures experienced by medical students. Limitations more specific to the data and findings are described in Chapters 3 and 5.

Overview of the Dissertation

A review of the literature regarding medical school retention, medical student attrition and retention, and help-seeking behavior is provided in the next chapter providing support for the rationale of this study. The methodological design and procedures for the study are presented in Chapter III, followed by a presentation of the results from the proposed analysis in Chapter IV. A discussion of the findings, emphasizing implications for medical education is provided in the concluding Chapter V.

The final Chapter V provides summative information including conclusions, limitations of the findings, and implications for practice and future research.

CHAPTER II

REVIEW OF THE LITERATURE

Medical Student Retention

Studies examining factors which influence success in medical school date back to a report titled "What Becomes of Medical Students?" published by Paget in 1869, in which he presents results of a ten year longitudinal study of 1,000 students trained at St. Bartholomew's Hospital (Gough & Hall, 1975). Gough and Hall (1975) estimate there was a 10 percent attrition rate among the group during their studies, and the loss of an additional 18 percent out of medical practice during the period of the study. Johnson and Huchins (1966) responded to the call for a national study of the reasons underlying failure to graduate from medical school in a monograph on the dropout problem. This ten year longitudinal study of 75,453 medical students entering American colleges from 1949 through 1958 identified 3,857 students (5.1%) who dropped out for academic reasons and 2,699 (3.6%) who dropped out for nonacademic reasons. A 1972 report issued by the American Medical Association's Division of Medical Education indicated that during the nine year period from 1963 to 1971, 322,864 students were enrolled in medical schools; 3,666 dropped out because of academic difficulties and 3,318 withdrew for nonacademic reasons (American Medical Association, 1972).

Summarizing the trends and findings of dropout data Gough and Hall (1975) present

five conclusions:

> From 50 years of record-keeping in American medical education and from parallel data from Britain and Canada, it appears that dropout rates have varied from a high figure of about 25 percent to a low of perhaps 1.5 percent; (b) an attrition rate of from 5 to 10 percent would appear to be "normal" with higher rates reflecting correctable difficulties in selection and evaluation and lower rates reflecting unusually favorable practices in both regards; (c) although the presumed normal wasting of 5 to 10 percent is appreciable, it is lower than that observed among most other graduate and professional training programs; and (d) even today when the dropout rate is the lowest it has ever been, over 500 students can be expected to withdraw from medical school during the current academic year. (p.942-943)

Much of the research regarding attrition and retention of medical students focuses on developing predictive equations. Reid and Blain (1977) report "conventional measures such as science grade point average (GPA) and Medical College Admission Test (MCAT) scores have not had high correlations with student success or failure in medical school" (p. 66). In response the researchers began to administer a battery of tests to incoming medical students in an attempt to more accurately identify students who could experience academic difficulty in medical school. Reid and Blain (1977) found that the addition of a reading test and problem-solving test to conventional measures allowed then to identify about three times more students who experience academic difficulty than did conventional measures alone.

Henderson (1988) sought to identify student characteristics which correlated with

future success or failure among students at risk of dismissal while attending the George Washington University School of Medicine and Health Science. Students in his investigation included 20 Caucasians, 19 Blacks, 1 Hispanic and 1 Asian; 25 of the students were male and 16 female. Examining four groups of students, based on the primary problem which placed them at risk for dismissal (i.e., academic problems, intrapersonal problems, interpersonal problems, intrapersonal and academic problems), Henderson (1988) found that of the fourteen students (9 Caucasian, 5 Black) experiencing intrapersonal problems (i.e., problems related to anxiety or personal conflicts), 10 graduated and four withdrew. The second highest concentration of students were in the interpersonal problem group (i.e., difficult social and working relationships with other students and medical school staff), of which 8 were Caucasian, 4 Black and one Asian. Of this group one graduated, 3 withdrew, and 9 were dismissed. The academic problems group consisted of 3 Caucasian, and 4 Black students, resulting in 4 graduations, 1 withdrawal and 2 dismissals. The combined intrapersonal and academic problems group consisted of 6 Black and one Hispanic students. For these students, 5 graduated, one withdrew and one was dismissed.

Henderson (1988) concludes that students for whom the primary problem is related to academic ability are least likely to complete medical school. Students for whom the primary problem is intrapersonal are most likely to complete medical school, especially when help is provided. He recommends early identification of students whose primary problem is interpersonal, indicating this group is very unlikely to complete medical school. With regard to those students expressing academic and intrapersonal problems Henderson (1988) suggests the following:

For the minority students, who predominate in the academic problems and

> intrapersonal/academic problems group, improved social supports have been shown to increase graduation rates and are likely to account for the high graduation rate (71 percent) in the study reported here. (p. 601)

Supportive of Henderson's (1988) conclusions regarding minority students are the studies of Johnson (1978) and Strayhorn (1980).

Johnson (1978) examined differences between minority and non-minority student perceptions of the Rutgers Medical School environment. He found that minority student attitudes tended to be more positive than those of non-minority students toward the concept of the administration and remedial programs, while their attitudes toward faculty were more negative than those of non-minority students. The groups did not differ in their perceptions of tutorial assistance. Johnson (1978) suggests special programs may serve as a positive source of identification for all medical students and that "improved faculty-student interaction may do much to indicate to minority students that they are accepted and to alleviate much of the uncertainty they feel" (p.136).

Strayhorn (1980) examined differences in the degree of perceived stresses and social supports among Black and White medical students at the University of North Carolina School of Medicine at Chapel Hill. The research found that Black medical students perceived more stresses than did White medical students, with the Black students having the perception that the faculty made them feel unimportant. No differences were found in perception of social support for the two groups with both turning to fellow students more frequently than to other sources, and with Black students perceiving interaction with students in general as being stressful. Strayhorn (1980) suggests that the "ability of black students to find adequate social

support may offset some of the effects of their higher perception of sources of stress" (p. 619).

In an examination of the reasons for interruption of medical school studies for minority and non-minority medical school graduates from 1978-79 through 1982-83, the Association of American Medical Colleges, Section of Minority Affairs (1988) indicates that over the five academic years considered, personal and/or family difficulties has been the primary category identified as the reason minority students interrupt their studies. During the 1978-79 academic year, of the 32 minority students indicating reasons for interrupting studies 25 percent designated personal/family difficulties as the reason, followed by health reasons and academic difficulties (both at 22.7 percent). By the 1982-83 year of the 80 minority students indicating reasons, 40 percent identified personal/family difficulties and 32.5 percent identified academic difficulties. The highest number of minority students responding occurred during the 1981-82 academic year. Of the 83 students responding that year, 41 percent indicated personal/family difficulties, followed by academic difficulties identified by 38.6 percent.

Given the aforementioned literature and data regarding reasons for interruption of medical school studies among ethnic/racial group students, the need for further investigation in this area is evident. Programming and services which will assist ethnic/racial group students in addressing intrapersonal and interpersonal problems that impact their academic performance must be identified in order to insure increased retention rates and ultimately increased representation of ethnic/racial groups among the numbers of American physicians.

Attrition and Retention

Research regarding student persistence in college has over time primarily focused on student characteristics related to attrition, with a lesser and more recent emphasis on institutional characteristics which affect student retention (Lenning, Beal & Sauer, 1980; Lea, Sedlacek & Stewart, 1979).

Dropout and attrition research often examines demographic factors (i.e., age, sex, socioeconomic status, ethnicity, residence, etc.), student aspiration and motivation factors (e.g., commitment, peer group influence, satisfaction versus dissatisfaction), and financial factors which result in an individual's leaving college before graduation or program completion. Two important problems associated with research on students who dropout are those of not "distinguishing dropout resulting from academic failure from that which is the outcome of voluntary withdrawal," and not differentiating those students who dropout permanently from those who transfer to other institutions to complete their studies (Tinto, 1975, p. 89-90). Without these distinctions findings will tend to be contradictory and confusing and offer little assistance in the effort to identify appropriate interventions for alleviating the problem of student attrition.

Consistent with the focus of attrition research on student characteristics is the tendency to "blame the victim." Institutions examining the academic preparedness and ability of the student, along with other intervening individual characteristics of the student who drops out, will likely respond to student attrition concerns through the selection process and avoidance of the types of students who have not successfully completed the course of study. Efforts consistent with this view of attrition tend to focus on identification of predictive factors for admissions decisions, with those factors most heavily weighted toward academic

capability.

Research examining student retention has tended to incorporate information about the college environment, which Pantages and Creedon (1978) identify as a fairly recent inclusion in the research considerations. Lenning, Beal and Sauer (1980) present three categories of institutional influences on retention. The first, the "objective environment," includes the institution's image, costs of attending, size and type, residential conditions, and services available to students. The environment as associated with student involvement is the second category and includes extracurricular activities, development of close friendships, the quality of student -faculty relationships, and involvement in academic programs. Third is the policies and procedures of the institution. Lenning, Beal and Sauer (1980) indicate this category to be lacking in sufficient research and suggest that policies and procedures need to be supportive and "not impede matriculation or re-enrollment at an institution" (p. 21).

Certainly a response to any of the factors included in the aforementioned categories of college environment will require the institution to do some self examination in considering the fate of its students. However, many of these factors are the characteristics that distinguish institutions which, if altered, change the very nature of the institution; therefore, intervention poses a dilemma which often extends beyond the institution itself.

The interaction between student characteristics and institutional characteristics is an area which requires examination in order to insure the development of an optimal response to the issues of attrition and retention. Lenning, Beal, and Sauer (1980) make this statement:

> The characteristics of the interaction, not the student or institution alone, affect a student's decision to stay or drop out. Students remaining in school and attaining goals or completing a program represent a fit between a variety of factors relating to

> both the student and the environment. Conversely, the cause of attrition is a lack of fit between a student and the institution; this lack of fit can involve a wide range of factors, which vary with the student, the institutional program and the situation. (p. 43)

Researchers examining this interaction have in various ways, and to varying degrees of complexity, communicated the intricacies of this interaction.

Tinto (1975) presents a theoretical model of dropout behavior, based on Durkheim's theory of suicide, which incorporates individual and institution interaction and distinguishes between the processes that result in different forms of student attrition. He emphasizes that his is a model that seeks to explain dropout behavior from the level of the institution rather that from the level of the higher education system. He presents his model as based on the argument below:

> The process of dropout from college can be viewed as a longitudinal process of interactions between the individual and the academic and social systems of the college during which a person's experiences in those systems (as measured by his normative and structural integration) continually modify his goals and institutional commitments in ways which lead to persistence and/or to varying forms of dropout. (p. 94)

A schematic diagram of Tinto's model is presented in Figure 1.

Tinto's model of attrition acknowledges the individual characteristics associated with personal attributes, family background, and pre-college experiences and their influences on college performance and the development of educational expectations and commitments. Integration of the individual into the academic and social systems of the institution has a direct relationship to that individual's commitment to the specific institution and to the goal of

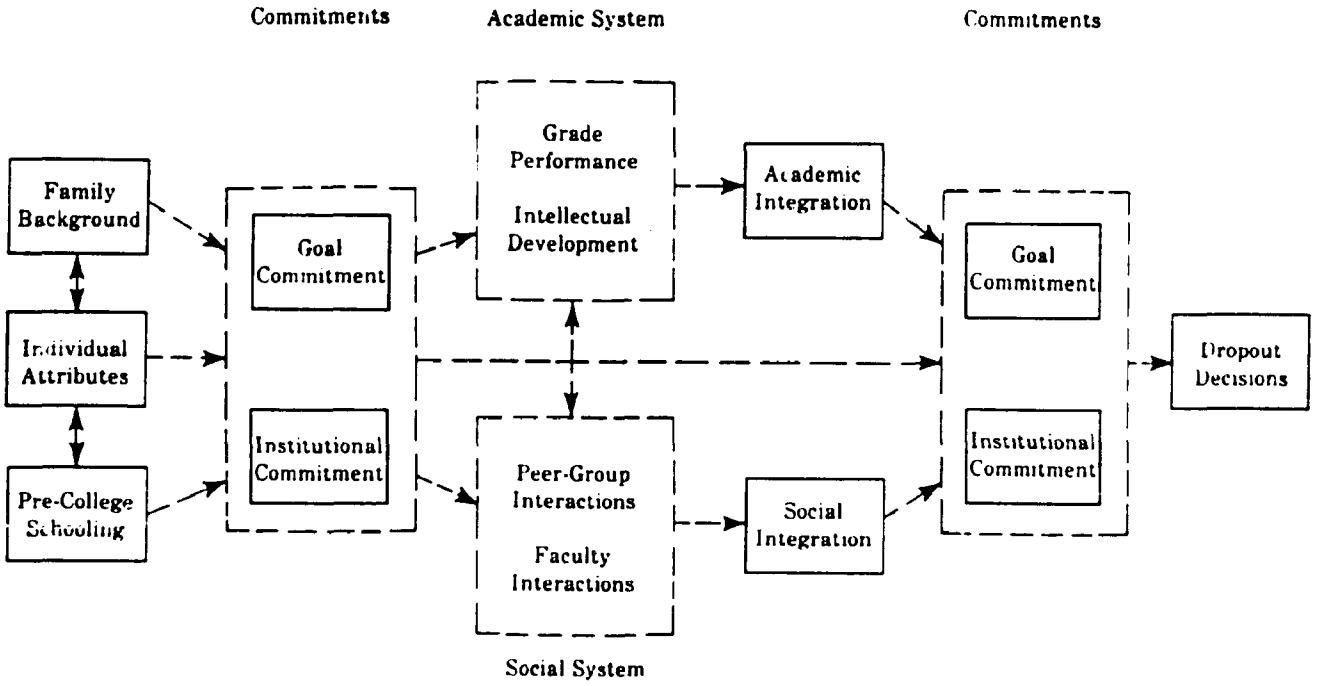

Figure 1. Tinto's model of attrition. From "Dropout from Higher Education: A Theoretical Synthesis of Recent Research" by V. Tinto, 1975, Review of Educational Research, 45.

completion. The "interplay between varying levels of goal and institutional commitment and the characteristics for the institution (e.g., level, quality, and size) may also be utilized to explain the occurrences of differing patterns of transfer between institutions of higher education." The model also acknowledges the potential impact of factors in the social system external to the college and suggests this impact is evidenced in the person's "changing evaluation of his commitment to the goal of college completion and to the institution in which he is registered" (Tinto, 1975, p. 97).

Tinto (1975) offers a concise explanation of the complex interrelatedness of individual and environmental factors which impact student attrition and retention while also providing a comprehensive model for considering these factors.

A study conducted by Tracey and Sedlacek (1987) addressed some of the methodological problems evident in retention research raised by Lea, Sedlacek and Stewart (1979), and focused on Black/White differences related to prediction of graduation. In a longitudinal study which sampled freshmen entering a predominately white institution in 1979 and 1980, the researchers attempted to determine the validity of the Noncognitive Questionnaire in predicting graduation by race after five and six years (Tracey and Sedlacek, 1987). The questionnaire was designed to assess seven noncognitive factors associated with the academic success of racial and ethnic minority group students. Following are the seven factors: "(a) global positive self-concept as related to expectations for the coming years, (b) realistic self-appraisal, especially with respect to academic abilities, (c) an understanding of racism and an ability to deal with it, (d) an ability to work toward long-term goals rather than more immediate, short-term ones, (e) availability of people supportive of one's academic goals, (f) successful leadership experiences in either organized or informal groups, and (g)

demonstrated community service as indicated by involvement in local community and church activities before college" (Tracey and Sedlacek, 1987, p. 179). Results of this study indicate that the noncognitive dimensions assessed by the questionnaire were significantly related to graduation, while traditional measures of academic ability such as SAT scores were not. Additionally, most subscales of the questionnaire were found to be more related to graduation for Black students than for White students.

Research regarding the factors which affect the retention and graduation of students from ethnic/racial groups is limited and most often focused on Black student populations, indicating rates of persistence are lower for Black students especially those attending predominately white institutions (Astin, 1982; Sedlacek & Pelham, 1976; Sedlacek & Webster, 1978; Tracey and Sedlacek, 1987).

Interest in research which will aid institutions of higher education in retaining and graduating students of all backgrounds is evident. The need for research related to the increasingly diverse student population is becoming more apparent. Lea, Sedlacek and Stewart (1979) suggest that there is a need for research which focuses on student subgroup differences in attrition and retention, why predictors interrelate, cooperative studies among schools sharing applicant pools, and research which can be translated into practical terms to be used in addressing retention concerns.

Medical Student Needs for Non-Academic Help Resources

In an early review of the interaction between the psychological health of medical students and the medical education process, Adsett (1968) identified three possible sources of psychological problems among medical students. The three areas of conflict identified are:

" (a) adjustment associated with late adolescence and early adulthood, (b) activation of long-standing latent intrapsychic conflicts, and (c) the relationship taken to the medical education process or medical school milieu (p.728).

Drawing on his experiences at the University of Oklahoma Medical Center, Adsett (1968) focuses attention on conflicts related to the medical education process. He points out that "as a rule, serious psychological problems adversely affect academic performance; that they probably account for most of the medical student attrition is evidenced by the fact that at the University of Oklahoma there is no significant difference between college grades and Medical College Admission Test scores of those who drop out of medical school and those who graduate" (p.729).

Adsett (1968) offers his observations regarding the conflict experienced primarily by male medical students during the four years of medical education. The first year medical student is identified as the most frequent visitor to the student health services for psychological concerns stemming from a sense of comparative underachievement. The first year student may have much of his/her self-esteem linked to "ability to excel in competition with others," such that considerable turmoil is experienced when individual performance is below that to which the student has become accustomed. Additionally, first year medical students may experience anxiety around exams or aversions toward aspects of their expected coursework. The second year student is a less frequent visitor to the health service and is probably better acclimated to the medical education experience. With academic pressure lessened and greater exposure to pathology and psychopathology the student has an opportunity to consider personal long standing problems. By the third year of study the number of those seeking help tends to increase again. The concerns for these more clinically

focused students center around insecurity and anxiety associated with the application of theory to practice. Additionally, the third year student is likely to experience feelings of anger and inadequacy for "being low man in the hierarchy of ward personnel." Fourth year students was observed to present at the health service less than their "underclass colleagues." Pointing to the probability that the final year is less stressful and that these students are treated more like physicians, Adsett(1968) suggests that the senior student focuses attention on moving from the role of trainee to taking on greater responsibility for independent practice as a clinician.

Acknowledging the "small group of female medical students who are likely to increase in number in future years," Adsett (1968) observed a proportionally higher percentage of female students seeking services, most often to address role conflict concerns.

A series of articles in the September, 1990 edition of Academic Medicine examined the biopsychosocial well-being of medical students and residents. Three of these articles have relevance here.

Dickstein, Stephenson and Hinz (1990) reported that psychiatric complaints among medical students differ depending on their academic class. The study was comprised of 217 medical students seen for psychiatric consultation during an eight year period at the University of Louisville. The sample represents 20% of the total medical student population for those years. First year students primarily tended to report academic difficulties while fourth year students and older medical students presented career and relationship difficulties. Looking at gender differences these researchers found that male medical students in the sample more often identified themselves as heavy drinkers, and women commonly perceived themselves as more personally distressed. The women in the study seemed to be more stressed by the

pressures of medical school and the resulting role strain, or they were more likely to report their stress than were the male subjects. Perceived stress was found to be significantly correlated with psychological and physical symptoms of stress only in the male subjects.

Parkerson, Broadhead and Tse (1990) used data from the health promotion program for students at Duke University School of Medicine to examine the health status and life satisfaction of 286 first year students from four consecutive classes; these students completed health and risk questionnaires at the beginning and end of their freshman year of study. The researchers noted a general "worsening of all health parameters for both men and women" during the course of the freshman year but found the most significant changes to be an increase in depression scores for both men and women. In examining differences between students who considered themselves to be very satisfied with life and those who were less than satisfied at the end of freshman year, the researchers found the most significant differences to be that "more of the satisfied than the less satisfied had very strong social ties, participated in regular physical exercise, slept more than six hours per night, and had fewer stressful life events."

Pyskoty, Richmam, and Flaherty (1990) examined the psychosocial assets and mental health of Black, Hispanic, and White medical students at a state medical college. Subjects completed a questionnaire (focusing on psychosocial and behavioral variables) during initial registration and again in the fall of their second year. Areas assessed included current interpersonal relationships, medical school stressors, personality characteristics related to self-esteem, external locus of control and mental health. The initial assessment revealed that both Black and Hispanic students perceived greater social support and showed higher self-esteem than did the White students; no differences were found across the group in measures of

depression and hostility, although White students showed the highest anxiety ratings. By the following fall at the second assessment, the Hispanic students, but not the Black students, retained their initial advantages with regard to social support, and measures of self esteem continued to show the same trends. Measures of mental health at the second assessment indicated decreased anxiety for White students and increased hostility over time for the Black students. Associating the advantages shown by the Black and Hispanic students at the initial assessment with their participation in a special enrichment program, the researchers suggest "enhancing the formal support networks of minority students," and that enrichment programs "focus on inner as well as external resources to facilitate greater feelings of control and self-efficacy among minority students."

The aforementioned studies indicate both the general and specific negative impact of the medical school environment on Black and Hispanic students. Considering the observations of Adsett (1968) supported by the investigation of Dickstein et al. (1990) it appears that medical student distress tends to vary with year of study, predictably moving from a focus on personal academic performance in a competitive environment to concerns about personal adequacy as an independent practitioner; in between, the medical student has the opportunity to have individual long-standing conflicts surface for attention. When the first year of study is the focus of inquiry it becomes evident that within a year's time medical student distress is likely to increase and social support becomes a significant factor for the students (Parkerson et al., 1990; Pyskoty et al. 1990).

For Black and Hispanic students it seems probable that increased distress during the initial year of study and possible increased alienation as they progress through their medical education presents a considerable risk for attrition if appropriate supports are not identified

and maximized. The extent to which these two groups of students will seek the assistance necessary to insure their success becomes an important consideration.

Help-Seeking Behavior

Gourash (1978) provides a review of the literature on help-seeking which she defines as "any communication about a problem or troublesome event which is directed toward obtaining support, advice, or assistance in times of distress". Results of her review with regard to who seeks help indicate: help-seeking declines with age; help-seeking is more prevalent among Whites than Blacks; "users tend to be young, white, educated, middle-class, and female"; those who solicit help tend to turn to family and friends, and to contact professional services as a last resort; and, that some patterns exist between certain types of problems and sources of help. The social network is identified as a major source of help serving as a "natural support system that counteracts the effects of stressful life events," and as an "effective strategy for coping with stress" (p. 414-417).

The decision made by an individual to seek help, formal or informal, has been associated with the extent of troublesome life events or symptoms of distress experienced (Brown, 1978; Gourash, 1978; Neighbors & Howard, 1987). The impact of such experiences, mediated by the individual's sense of self reliance and perceived ability/preparedness to manage the stresses, often influences the decision to seek assistance (Brown, 1978), yet there are studies which indicate that a considerable number of people reporting problems do not seek help at all (Gurin, 1960). Additionally, there is evidence for race differences in seeking help from professional sources. Broman (1987) reported these findings:

> Race is a significant sociocultural characteristic that predicts professional help seeking. Blacks are more likely than whites to seek help from mental health sources, particularly for economic and health problems. Blacks also seek help more often than whites from other professional sources such as teachers, lawyers, social workers, and emergency rooms. Whites more often seek help from medical sources for all types of problems, and from members of the clergy. (p. 487)

Literature regarding the use of university mental health and other non-academic support services by ethnic/racial group students in the minority while attending predominately white institutions indicates a perceived and evident lesser use of formal sources of help by those students in the minority than by White students at the same institutions (Davis & Swartz, 1972; Leavitt, Carey & Swartz, 1971; Mackey, 1972; Winer, et al., 1974). Although research in this regard has remained limited and primarily focused on comparisons of Black and White students, a few rather significant studies have been conducted.

In her analysis of Black student utilization of the mental health clinic at Stanford University during the period from 1969 to 1972, Gibbs (1975) found that use of the clinic by Black students decreased despite a proportionate increase in the Black student population. Gibbs (1975) also noted that the presenting problems of Black users were similar to those of White users, with the difference being that the stress experienced by Black users is likely to be associated with their "marginal ethnic identity and socioeconomic status, and to the cultural attitudes and behavior patterns resulting from this dual marginality" (p. 440). These findings suggest the need for careful consideration of the extent of anxiety experienced by the student who presents for services in a predominately white institution, as well as a need for

outreach to students in the minority to inform them of service availability.

Pliner and Brown (1985) surveyed Asian American, Black, Hispanic, and White students enrolled at the University of Houston, to determine anticipated reactions to possible future stressful events, and to determine preferences for formal versus informal help. In considering the four domains of stressful events (i.e., academic, financial, family, and personal), the researchers found the following:

> Ethnic subgroups vary in their perceptions of stressors in academic and personal domains. In the academic domain older Black and Hispanic students perceived events as potentially more stressful than did older Asian Americans, and Hispanics had significantly higher stress scores than did Whites. The scores of older Black students were not higher than those of White students. (p. 150)

Although Pliner and Brown (1985) did not find evidence to indicate that ethnicity added to the prediction of preference for source of help, they did find that age was positively correlated to the preference for formal sources of help, while socioeconomic status was negatively correlated with seeking formal sources. The researchers recommend focusing on actual use of mental health facilities in future research to avoid discrepancies in findings possibly attributable to the differences in stating a preference and using a service, and/or attributable to potential versus actual use of mental health services (Pliner & Brown, 1985. p. 150).

Cimbolic, Thompson and Waid (1981) surveyed Black and White students at a predominately white institution to determine preferences for help source from among nine potential sources, other than university counselors, in addressing personal and

educational/vocational concerns. Important in this study is the inclusion of "self" among the choices of help sources. Results indicated that Black female and White male and female students all preferred to solve their own problems (personal and educational/vocational) rather than seek other sources. Black males indicated equal preference for self and student friend for personal problems; and preferred student friend for help with educational/vocational concerns (Cimbolic, Thompson & Waid, 1981, p. 345). These results indicate a need for programs which assist students in helping themselves and peers as they confront problems in the university setting, and for efforts to increase awareness about available services and the appropriateness of counseling.

Cheatham, Shelton and Ray (1987) surveyed students at a large Eastern university to "determine whether Black and White students made different causal attributions about personal problems and to examine racial and sex differences in the behavior involved in seeking help" (p. 560). Results of this study, using a number of within group analyses, indicated race and sex differences but not causal attribution were related to the help seeking behavior of the students. It was found that women and men respond to their personal problems differently, and Blacks and Whites reveal more similarity than difference in their experiences of personal problems and help- seeking behavior, with greater preference for network sources over professional sources.

Research regarding the help-seeking behavior of ethnic/racial group students in the minority at predominately white institutions suggests the need for further investigation in a number of regards. Most of the existing literature focuses on the comparison of Black and White students in an attempt to determine differential patterns in seeking assistance and the sources of assistance used. Closer examination of within-group differences of Black and

other ethnic/racial groups seems essential in order to more precisely determine the factors which influence help-seeking behavior. Exploration of the interaction between differential experiences of troublesome events among students from the same ethnic/racial group in the presence of the pressures of being in the minority in the academic environment may also contribute to an understanding of preferences for sources of help. It is likely that the limited presence of ethnic/racial professionals in the environment may be a factor which contributes to limited use of formal sources of help. From a methodological perspective there is a need to more directly determine what sources of help have been used by ethnic/racial group students, rather than to merely determine who might be approached under hypothetical circumstances.

Summary

The research literature indicated that student retention in higher education is a complex interaction of individual and institutional factors further complicated by external environmental influences. For students pursuing professional training in medical schools the factors which affect persistence become even greater. As adult students with greater life stage demands, medical students are apt to experience any variety of events which may compete with the goal of attaining the medical degree and becoming a physician. The medical student from an ethnic/racial group in the minority at a predominately white institution, and underrepresented in the field of medicine has an additional layer of complexity added to the concerns. In an environment where this student is recognized as different and often assumed to be present by special consideration, the underrepresented minority medical student must manage the additional pressures and anxiety of the circumstances while remaining competitive

and progressing through the academically demanding curriculum.

As evidenced in the literature, the ethnic/racial minority student, for a number of reasons, is unlikely to seek assistance when confronted with personal concerns. Although there is evidence to suggest a preference for seeking help among ethnic /racial minority group members for economic and health problems (Broman, 1987), the more specific evidence associated with students suggests a greater reticence to such behavior. For this student, personal concerns too often become intrusions which lead to reevaluation of commitment to the goals of completing the medical education and persisting at the institution. The distraction posed by a personal concern soon invades the student's ability to focus on the academic demands, resulting in a decrease in performance, despite ability, and potential interruption of studies. The limited likelihood that the minority medical student will seek assistance creates a downward spiral which can end in student attrition.

Given the limited research and potential negative impact of nonacademic concerns on minority medical students, clearer understanding of the factors which may prohibit help-seeking among this population is necessary. Additionally, institutions which have shown a commitment to increasing the numbers of ethnic/racial minority students they train need to be assisted in retaining and graduating the students they enroll, and therefore must have access to tools beyond the academic curriculum.

The primary focus of the proposed study is to examine differential help-seeking attitudes, preferences and behavior of two underrepresented ethnic/racial medical student groups, based on their own experiences of personal problems since entering medical school. Differences will be described and explained based on ethnicity/race, other personal characteristics, and college attended. The examination of individual, nonacademic, and

nonfinancial factors will be used to suggest institutional interventions which may be useful in increasing the retention of Black and Hispanic medical students attending the four medical colleges in the state of Michigan.

The purpose of this study is to assess student responses to areas previously researched with different populations and to extend the literature and knowledge available regarding this population of students. Of particular interest will be the reasons identified by Black and Hispanic medical students for not using help resources along with the differential use of sources of help and preferences for help sources across institutions.

The research questions to be examined in this investigation are presented below with a brief discussion of the implications associated with the possible findings:

1. What is the relationship between students' demographic characteristics and their attitudes toward seeking help, use of help resources, and reasons for not using help resources?

This question is primary in establishing the differential patterns of Black and Hispanic medical students in seeking help, and in identifying the demographic differences which may predict help-seeking as associated with the nonacademic concerns examined. The hypotheses are posed consistent with the literature on help-seeking behavior. It is expected that the two groups will differ particularly with regard to their use of help resources.

It is anticipated that Black students will indicate preferences for formal supports within the college environment at a higher rate than will Hispanic students. This supposition is based on the observation that there are fewer Hispanic faculty and support staff available to students than there are Black faculty and support staff -- though neither exist in adequate

supply. Such findings would suggest the need for increased numbers of Hispanic personnel in the medical schools in positions directly related and accessible to students.

Findings associated with this question will emphasize the unique needs of the ethnic/racial minority group students in addressing concerns which may be similar in nature but which have differential effects. Additionally, the information gathered will provide insight for the development of support programs appropriate for specific groups of students based on personal characteristics.

To find no differences among the respondents based on an examination of demographic characteristics may be indicative of comparable levels of isolation and of perceived lack of accessible services. Such findings could be further explicated with a careful comparative analysis of the reasons for not using help resources, and may suggest the need for institutions to periodically evaluate services made available to an ever changing student population.

Findings contrary to those presented in the hypotheses might suggest the need for further examination of the individual characteristics of this population as compared with those of subjects in similar help-seeking behavior studies.

2. How does problem severity relate to the number and type of help sources used by students to address the categories of nonacademic problems?

Students who experience multiple problems, or those who are greatly affected by non-academic concerns are more likely to seek help from sources beyond themselves in order to alleviate their distress than would be their peers who are less affected or who experience fewer problems. Additionally, it is probable that more formal sources of help will be sought

to address problems of greater severity. If this hypothesis is supported, then it would be important for the institutions to identify appropriate resources for students experiencing nonacademic difficulty, and to communicate support for their seeking formal assistance beyond that which may be available within the college.

For those institutions with higher representation of Black and Hispanic students it is anticipated that these students will be more willing to utilize the services available than will their counterparts at the other institutions. Such a finding would suggest that there is a greater likelihood of successful completion when students who perceive a more supportive environment, based on less isolation, experience nonacademic concerns.

If the hypotheses are not supported by this investigation this may suggest that students who perceive themselves to have experienced more severe problems are choosing to take greater personal responsibility for their distress and it is likely they run the risk of having their nonacademic concerns affect their ability to perform academically. If this is found to be true, once again clear messages of support in identifying appropriate types of support services, minimizing the concern of being stigmatized, will be essential. It is also possible that such findings would indicate the need for instituting peer support programs as well. The reasons for not using help resources will be important in the interpretation of these findings as may be an investigation of other factors associated with the individual institutions.

3. How do preference for sources of help, problem severity, and help sources used by students to address nonacademic concerns relate to academic difficulty experienced by students?

This question establishes the relationship between a student's academic integration and

aspects of social integration which are related to retention. One hypothesis examines the relationship between problem severity and academic difficulty establishing the risk factor for students experiencing nonacademic concerns. Others are aimed at delineating the differential patterns of help-seeking behavior as associated with problem severity and academic performance. Findings associated with this question will determine who uses what supports, to address what nonacademic problems, and the relationship between nonacademic problems, use of supports, and academic difficulty. Development of effective interventions to retain Black and Hispanic medical students will depend on the associated predictors and findings.

Should the hypotheses not be supported in this study this will provide additional information regarding the coping strategies of respondents and suggest additional areas for investigation.

CHAPTER III

STUDY DESIGN AND PROCEDURES

The purpose of this chapter is to present the plan for this investigation of Black and Hispanic medical students' help-seeking behaviors. This descriptive study specifically explores the variables which might influence the medical student's use of non-academic support services to address personal concerns (i.e. physical, familial, interpersonal, emotional/psychological). Attitudes, preferences, use of help resources in addressing personal concerns, and reasons for not using help resources are examined to assess differential patterns among subjects and to determine the relationship of these variables to academic risk. Differences are measured based on personal characteristics, and within the context of medical school attended as derived from a self-report questionnaire. The sections below present the following information: descriptions of the population and resulting sample, instruments, operational definitions, procedures for collecting data, statistical hypotheses, data analysis, and potential limitations.

Description of the Population

Subjects for this study were Black and Hispanic students enrolled during the 1990-91 academic year in undergraduate medical training at the Michigan medical schools, namely: Michigan State University - College of Human Medicine; Michigan State University - College

of Osteopathic Medicine; University of Michigan Medical School; and Wayne State University School of Medicine. Enrollment data for the Michigan medical schools during the 1990 academic year is presented in Table 1. Based on data reported by each school for the "Michigan Medical Schools Council of Deans Annual Report on Undergraduate Medical Education in the State of Michigan 1990-1991," the population of interest was estimated to include 320 Black and 105 Hispanic students across all years of study at the four medical schools (see Table 1). Total student enrollment for the four schools during the 1990-91 year was estimated at 2,828; therefore Black student estimates represented 11.3% of the total student enrollment and Hispanic student estimates represented 3.7% of the total enrollment for the four schools of medicine.

Table 1

1990 Enrollment of Black and Hispanic Students in Michigan Medical Schools by Year of Study

	BLACK				HISPANIC			
	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 1	Yr. 2	Yr. 3	Yr. 4
MSU-CHM	18	16	6	15	5	11	6	7
MSU-COM	4	9	11	5	2	8	1	3
U OF M	17	26	29	21	18	8	11	6
WAYNE	54	44	23	22	0	7	4	8

Description of the Sample

Of the 425 Black and Hispanic medical students reported to be enrolled in the four Michigan medical schools during the 1990-91 academic year, surveys were mailed to 377 students based on mailing addresses or labels provided by the institutions. From the 377 students contacted, 116 questionnaires were returned. Of the 116 questionnaires received, 103 usable responses were obtained (N = 103) and these, resultingly, comprise the sample for this study.

The sample is primarily composed of Black single females of traditional medical school age with no children. Most of the respondents are from the MSU College of Human Medicine. The distribution of respondents by class standing is fairly even, with the greatest percent being among second year students.

Instruments

A five part questionnaire was administered to subjects for this study. The questionnaire was comprised of a previously derived measure of attitudes adapted for this study, measures created by the researcher to determine preference for and use of help sources, reasons for not using help resources, and a brief survey of academic performance and demographic factors. The origin and development of each measure is presented below in the order in which it is included in the questionnaire.

Attitudes Toward Seeking Psychological Help

The measure of attitudes toward seeking psychological help was adapted from Fischer and Turner's (1970) 29-item "Attitudes Toward Seeking Professional Psychological Help"

Table 2

Demographic Data of Sample
(N = 103)

Variable	Frequency	Percent
Ethnicity/Race		
Black	73	70.9
Hispanic	30	29.1
Gender		
Female	68	66.0
Male	35	34.0
Age (as of 1991)		
22-25	31	30.1
26-30	41	39.8
31-35	16	15.5
36-40	7	6.8
41-42	3	2.9
Marital Status		
Single	76	73.8
Married	26	25.2
Number of Children		
Zero	83	80.6
1	12	11.7
2	4	3.9
3	3	2.9
4	1	1.0

Table 3

Distribution of Sample on Academic Background Variables
(N = 103)

Variable	Frequency	Percent
College		
MSU-CHM	32	31.1
MSU-COM	27	26.2
U of M	19	18.4
Wayne	25	24.3
Class Standing		
1st year	22	21.4
2nd year	34	33.0
3rd year	21	20.4
4th year	24	23.3
Undergraduate Institution		
Low underrepresented population	71	68.9
High underrepresented population	10	9.7
HBCs and predominately und. pop.	8	7.8

scale. This instrument had been used in a previous study with medical students to determine the relationship between year in medical school and attitudes toward seeking professional psychological help (Kligfeld & Hoffman, 1979). Using separate classical regression analyses for men and women, Kligfeld and Hoffman (1979) found that male medical students developed more positive attitudes toward seeking professional psychological help as they progressed in their medical training, while women entered medical training having more positive attitudes than the men and showed no significant changes in attitude during medical school. These findings were contrary to the results in the literature as related to attitudinal differences between males and females.

This scale requires respondents to indicate agreement or disagreement, on a 4-point continuum, with statements regarding aspects of general orientation to seeking professional help for psychological problems. Factor analysis, performed by the originators, of this instrument produced four subscales: I - Recognition of need for psychotherapeutic help; II - Stigma tolerance; III - Interpersonal openness; and IV - Confidence in mental health practitioners. The internal consistency estimate for this measure was calculated to be r=.83 suggesting moderately good consistency of responses within the whole scale. Reliability estimates for the individual subscales (Need, r=.67; Stigma, r=.70; Openness, r=.62; Confidence, r=.74) suggest moderate consistency. Intercorrelation for the subscales was fairly low suggesting the factors are reasonably independent.

Through an examination of the Fischer and Turner (1970) scale items for face validity as related to the proposed study, the researcher decided to eliminate the stigma tolerance subscale consisting of 5 items, one item from the seven item openness subscale, and three

items from the 9 item confidence subscale. The decision to eliminate these items is based on the severity of problem/treatment indicated by the items from the stigma tolerance and confidence subscales, and concern that the item from the openness subscale might confound response to other items in the questionnaire (i.e., "It is difficult to talk about personal affairs with highly educated people such as doctors, teachers, and clergymen").

The resulting measure, "Attitudes Toward Seeking Psychological Help," contains 20 items to be responded to on a 4-point Likert-type scale with low scores indicating agreement with the items and high scores disagreement. Three subscales were maintained: Scale 1, Recognition of need for psychotherapeutic help; Scale 2, Interpersonal openness; and Scale 3, Confidence in mental health practitioners. Factor analysis using a subsample of 88 respondents produced internal reliability estimates as follows: Overall scale, $r = .8624$; Need, $r = .8208$; Openness, $r = .5653$; and, Confidence, $r = .7710$. This measure is designated Part I of the questionnaire administered to the subjects.

Preference for Potential Help Sources Index

Christensen, et al. (1976) and Cimbolic, Thompson and Waid (1981) asked students to rank order help sources to determine preferences among college students. Drawing from the lists of potential and actual help sources identified in these studies the researcher developed a rank order measure to determine preference for potential help sources among Black and Hispanic medical students.

The "Preference for Potential Help Sources Index" asks respondents to rank order 14 potential help sources, including self, who might be approached for assistance with a personal concern. The index includes formal (professional) and informal sources of help, and this

differentiation is used in the analysis. Additionally, comparative analyses are based on the top three and bottom three preferences. This index is designated Part II of the questionnaire.

Problems Experienced and Help Sought

The measure of "Problems Experienced and Help Sought" is designed to assess self report of actual nonacademic and nonfinancial problems Black and Hispanic medical students may experience. Consistent with the purpose of this study, to examine factors other than academic ability which may interfere with the specified students' completion of medical education training, academic factors are excluded from consideration. Additionally, presuming that most medical students experience financial concerns of one kind or another this area of consideration is also excluded from the problem type list.

Within this measure respondents are first asked to indicate problems experienced, in terms of the extent to which they are affected, using a 5-point scale ranging from 0 for not a problem to 4 designating a crucial problem by which the individual is extremely affected. As a second step respondents are to indicate the sources of help they actually sought in addressing the identified problem areas. There are 16 possible choices including no help sought and a category for other which allows specification of help sources not included. All help source options presented in the Preference for Potential Help Sources Index are included in this measure.

The "Problems Experienced and Help Sought" measure is Part III of the questionnaire.

Reasons for Not Using Help Resources

In order to determine possible reasons for non-use of help resources, the researcher developed a 17 item measure for which respondents indicate level of agreement with the individual statements on a 4-point continuum. Initial consideration of subscales for this measure was based on logical groupings. This approach suggested five potential subscales: Concern (k = 2); Services (k = 4); Stigma (k = 2); Providers (k = 6); and, Personal Preference (k = 3). The small number of items included in some of the scales, so identified, could potentially prove problematic for data analysis. Subsequently, three subscales were then identified: I Concern and Preference (k = 7); II Providers (k = 6); and, III Services (k = 4). Preliminary factor analysis using a subsample of n = 88 supported the development of three subscales with a different configuration of items. Table 4 presents the final scales, their related items and reliability coefficients based on the analysis of all cases.

This measure is concluded with an open-ended option which allows the individual respondent to identify any additional reasons for not using help sources to address nonacademic concerns. The "Reasons for Not Using Help Resources" measure is included in the questionnaire as Part IV.

Table 5 provides an overview and definition of scales for Parts I-IV of the questionnaire.

Academic Performance and Demographics

Part V of the questionnaire collects information regarding the academic performance of respondents. Responses to four questions were used to establish the following through self report: whether a student had ever been dismissed from studies; whether a student had ever

Table 4

Scale Construction and Reliability of Reasons for Not Using Help Resources

Scale 4: Personal Aversion to Seeking Services k=5

4. Fear of peers
5. Fear of instructors
6. Lack of awareness regarding services
14. Preference for solving own problems
16. Preference for family helpers

Alpha = .6001

Scale 5: Unfavorable Assessment of Providers k=7

7. Uselessness of services
8. Lack of available helpers
9. Lack of competent providers
10. Lack of ethnic minority helpers
11. Lack of competent ethnic providers
12. Personal mistrust
13. Mistrust based on others

Alpha = .7968

Scale 6: Time k=3

1. Lack of time to seek
2. Lack of time to participate
3. Low priority

Alpha = .7401

Table 5

Definition of Scales

Scales and Subscales	# of Items	Range L	Range H	Reliability Estimates	Meaning of High Score
Attitudes Toward Seeking Psychological Help	20	20	80	.8479	Negative attitudes toward help
Recognition of Need	8	8	32	.8022	Lacks recognition of need
Interpersonal Openness	6	6	24	.5270	Not open interpersonally
Confidence in Mental Hlth Practitioners	6	6	24	.7702	Lacks confidence in providers
Prefernece for Potential Help Sources	14				(Ranked scores 1=preferred)
Fromal Sources	8	NA		NA	Preference for informal sources
Informal Sources	6				Preference for formal sources
Problem Severity					
Physical		0	4		Physical concerns main problem
Familial	NA	0	4	NA	Family concerns main problem
Interpersonal		0	4		Relations with others main problem
Emotional/Psychological		0	4		Mental health concernsmain prob.
Help Sought					
Formal Sources	8	0	8		More fornal help used
Informal Sources	6	0	6	NA	More informal help used
Number of Sources (per area)		0	15		Many help sources used
Reasons for Not Using Help Resources	17	17	68	.7248	Disagree with positivr reasons
Personal Aversion to Seeking Service	5	5	20	.6001	Aversion not the reason
Unfavorable Assessment of Providers	7	7	28	.7968	Providers not the reason
Time	3	3	12	.7401	Time concerns not the reason

taken a leave and the reasons for doing so; grades received in courses taken; and appearance before student performance/evaluation committees. This information was converted into a risk index score, on a scale of 0 to 4, indicating the academic difficulty experienced by respondents as represented in their performance and actions taken on the part of their institution. A value of zero (0) represented no academic problems had been experienced and, therefore, minimal risk; a value of one (1) indicated some difficulty in course work which might be any problem from a remediated course or conditional/marginal pass to courses which remained incomplete or not passed. A value of two (2) was assigned to voluntary leaves taken by a student in academic difficulty. A value of three (3) indicated that a student appeared before a student performance or evaluation committee for review of academic progress; finally, a value of four (4) indicated dismissal from the institution. Examination of frequency data for these items indicated one respondent at level 2 having voluntarily opted for a leave. As a result this category was eliminated, the values were redistributed across the remaining categories, and the final risk index had four levels, as already designated, with 0 being the lowest level of academic risk and 3, dismissal, being the highest.

Additionally, the questionnaire asks for basic demographic/personal information on each respondent. Factors included are sex, age, ethnicity/race, marital status, number of children, college enrollment, class standing, type of program, age at entry into medical school, and undergraduate institution.

Additional Information

Two optional open-ended items conclude the questionnaire inviting respondents to identify services which could be useful and the aspects of medical school perceived to be most

stressful.

Operational Definitions

In order to insure consistency in the interpretation of information and findings associated with this study the following definitions are provided.

Subject Characteristics

Ethnicity/Race

Black. Those respondents who identified their ethnicity/race with labels such as Black, African-American, and Afro American are included in this category.

Hispanic. Respondents using labels such as Cuban, Mexican-American, Latino, Puerto-Rican and Hispanic are included in this category.

Age

Traditional Aged. Based on the assumption that historically medical students tend to be in their twenties, given the trend that they enter medical school directly from undergraduate training. Accordingly, for this study traditional aged students are those up to and including age thirty (30).

Non-traditional Aged. The non-traditional aged student is the student over age thirty enrolled in any level of undergraduate medical education.

Class Standing

Preclinical. Students designating their class standing as in the first two years of study at the medical schools are categorized as in the preclinical units of study. These students have closer connections and greater interaction with campus faculty/staff and services.

Clinical. Students designating their class standing as in the latter two years of study

are categorized as in the clinical units of study. These students have greater interaction in the clinical/hospital setting and tend to have lesser contact with central administration, faculty/staff, and services offered by the medical schools. They are more likely, therefore, to have access to community resources.

Undergraduate Institutions

Undergraduate institutions identified by respondents were grouped into three categories based on the ethnic/racial student enrollment data for undergraduate institutions reported in the Chronicle of Higher Education (April 11, 1990); this data is compiled and reported bi-annually. Using 1988 enrollment figures the Chronicle provides enrollment percentages for American Indian, Asian, Black, Hispanic, White and Foreign students. To establish the parameters for the undergraduate institution categories the focus was on the percent of Black and Hispanic students enrolled as compared with the percent of students categorized as White.

Predominantly White. Institutions having greater than 70% White student enrollment with combined Black and Hispanic enrollment less than or equal to 20%

High Minority. Institutions having a white student enrollment less than or equal to 70% with greater than 20% Black and Hispanic student enrollment.

Historically Black Colleges and Predominantly Minority Colleges. Institutions having a combined Black and Hispanic student enrollment greater than fifty percent.

Research Variables

Academic Risk

For the purpose of this investigation a student at academic risk is one who shows some degree of difficulty with aspects of the medical school curriculum as evidenced by the respective consideration of course grades, requests for leave, appearance before a student performance committee, and/or dismissal from studies; where these considerations are ordered from lowest risk to greatest risk.

Sources of Help

Formal Help Sources. There are eight formal help sources which identify individuals trained to address problem areas. The formal help sources include the following: psychiatrist, psychologist, counseling center professional of same ethnicity, any counseling center professional, student affairs officer, faculty member of same ethnicity, other faculty member, and physician.

Informal Help Sources. The six informal help sources identify individuals associated with the respondents and who may be of assistance in addressing the personal concerns, but who do not necessarily have the professional training to do so. The informal help sources are as follows: self, non-student friend, student of same ethnicity, other student, family member, and clergy.

Personal Concerns

Physical. Any injuries, accidents, or substance abuse experienced by respondents which may incapacitate or limit physical functioning.

Familial. Those concerns associated with parents, siblings, spouse, children or other family members.

Interpersonal. Concerns regarding relationships with or regarding friends and other students, male-female relationships, conflicts with faculty/staff, cultural conflicts, and response to racism/sexism.

Emotional/Psychological. Mental health related concerns including, but not limited to, low self-esteem, anxiety, loneliness/isolation, suicidal ideation, value conflicts, depression.

Procedures for Collecting Data

Pilot Study

Given that aspects of the questionnaire to be administered in this study were developed by the researcher a small pilot study was undertaken to establish the content validity of the questionnaire. For this purpose responses to the survey, with some revisions in the instructions, were obtained from 15 Caucasian medical students at Michigan State University. Individual students were randomly asked to complete and return the survey to the investigator. Pilot study participants were provided with necessary instructions and information for contacting the researcher should follow-up information be of interest.

Based on a review of the pilot study surveys part V, a change was made in the ordering of the options for the academic performance item associated with courses completed. The pilot survey had "courses passed" as the first option seeming to result in further consideration of the options. By moving the "passed" option to the end of the list respondents might be more likely to consider the other options.

No statistical analyses were performed on pilot study questionnaires.

Study

Questionnaires were mailed to Black and Hispanic students enrolled at the 4 medical schools in Michigan. A list of students were obtained from each of the schools and were mailed to students by the researcher. [By completing and returning the questionnaire each respondent indicated voluntary agreement to participate in the study].

Each survey packet included a letter describing the purpose of the study, instructions for completing the questionnaire, contact information for the researcher, and a return envelope. The return envelope was the only part of the packet coded with a subject number,

for follow-up purposes. The investigator maintained a master list to track respondents. One follow-up contact was made to encourage response from students. A post card reminder was sent approximately two weeks after the initial mailing to those from whom no response had been received. This reminder provided the researcher's telephone number as a means of contact if the survey had been misplaced or not received or if there were questions.

College level administrators responsible for student affairs were be asked to establish with the researcher the preferred means of survey distribution (i.e., if the school would mail prepared packets to the student or provide labels for a mailing). In all instances labels were provided and responses were returned to the researcher in the coded envelopes. Return envelopes were separated from the questionnaires and used to determine response by individual name on the master list.

Research Hypothesis

Hypotheses pertaining to the help seeking attitudes, preferences and behavior of Black and Hispanic medical students are presented below. These hypotheses examine the effects of the six independent variables (age, class standing, college, ethnicity/race, gender, and problem severity) on the four dependent variables (attitudes, preferences, behavior-determined by sources used and reasons for not using help sources, and academic risk).

The research hypotheses tested are organized under the broader research questions posed.

Research Question 1: What is the relationship between students' demographic characteristics and their attitudes toward seeking help, problems experienced and use of help resources, and reasons for not using help resources?

Hypothesis 1: Black and Hispanic medical students will differ in:

1.1a: their report of problems experienced.

1.1b: the number of formal help sources used to address non-academic concerns.

1.2: their attitude toward seeking psychological help.

1.3: their reasons for not using help resources.

1.4a: their preference for sources of help.

1.4b: their preferences for sources of help.

1.5: their attitudes toward seeking help.

1.6: their reasons for not using help resources.

1.7: their attitudes toward seeking psychological help.

1.8: their reasons for not using help resources.

1.9: their attitudes toward seeking psychological help.

1.10: their reasons for not using help resources.

Research Question 2: How does problem severity relate to the number and type of help sources used by students to address the categories of non-academic problems?

Hypothesis 2.1a: Students reporting greater problem severity will use more sources of help than will students experiencing lesser problem severity for each concern area.

Hypothesis 2.1b: Students reporting greater problem severity will identify use of more formal help sources than will students experiencing lesser problem severity.

Hypothesis 2.2: When problem severity is held constant, use of formal help resources by student will differ for colleges having higher percentages of Black and Hispanic students.

Research Question 3: How do preferences for sources of help, problem severity and help sources used by students to address non-academic concern relate to academic difficulty experienced by students?

Hypothesis 3.1: Students reporting greater problem severity will differ with regard to academic risk, from students reporting lesser problem severity.

Hypothesis 3.2: Student experiencing higher levels of academic risk will differ in their use of formal help sources from those experiencing lower levels of academic risk.

Design

The design for this study in generally descriptive in nature in an attempt to define the characteristics and relationships among variables associated with the help-seeking attitudes, preferences, and behavior of Black and Hispanic medical students. There is no attempt in this study to manipulate the variables under investigation, but rather to determine the relations of the independent variables to the dependent variables. The independent variables for this study are: age, class standing, college, ethnicity/race, gender, and problem severity. The dependent variables are: attitudes, preferences, sources of help used, reasons for not using help sources and academic risk.

For each hypothesis, with the exception of Hypothesis 1.4b, the cell configuration for the analyses is consistent with that presented in Figure 3, where Y represents the dependent variable and $Y_1,\ldots,Y_j$ represent the levels, items and/or scales of that variable, and X represents the independent variable with $X_1,\ldots,X_i$ representing the levels of the variable. Hypothesis 1.4b is based on a 4x2 factorial design, as presented in Figure 4 where the cells contain means from the preference measure.

All data for the study was obtained from the self-report questionnaire completed by students who thereby became a part of the sample by self-selection.

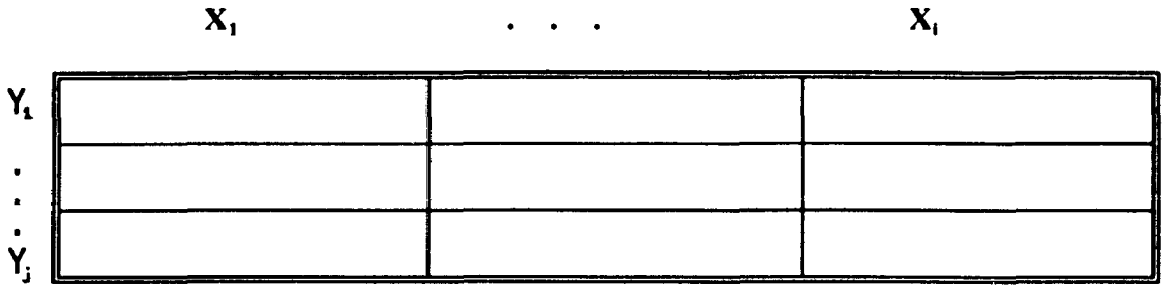

Figure 3. Cell configuration for analyses

COLLEGE

RACE	CHM	COM	UM	WAYNE
Black				
Hispanic				

Figure 4. Cell configuration for 4x2 factorial design

Data Analysis

In order to test the hypothesis for this study six (6) methods of analysis were employed. Specifically, the methods were analysis of variance (ANOVA), Krushal-Wallis one-way analysis of variance, Student's t-test (t-test), Mann-Whitney test, crosstabulation, and Spearman's rho correlation coefficient. All analyses were run through the SPSS-X release 3.0 system.

Analysis of Variance

ANOVA was used to test the difference between multiple means on hypotheses related to Part I: Attitudes Toward Seeking Psychological Help items and scales; Part II: Preferences for Help Sources, where help sources were collapsed into formal and informal categories; Part III: Problems Experienced and Help Sought, where sources of help used were collapsed by category into formal and informal categories; and, Part IV: Reasons for Not Using Help Sources.

Both one-way and two-way ANOVAs were used. The two-way ANOVA affords examination of the interaction effects of the independent variables included in the analysis to determine effects due to the combination of those factors.

ANOVA calculations produce the F statistic which is based on the variance between groups divided by the variance within groups (Kerlinger; 1964). The sampling distribution of F is used to determine significance.

Kruskal-Wallis.

The Kruskal-Wallis one-way analysis of variance was used to test the differences between multiple means for the ranked data from Part II: Preferences. This nonparametric procedure eliminates the need to meet the assumptions associated with the ANOVA described above, and allows the analysis of data that is based on ordinal scaling.

Student's t-test

The Student's t-test was used to test the differences between two group means on the dependent variables. The t statistic is based on an equation which divides the difference

between the sample means by the standard error of the difference between the means (Kerlinger, 1964). The sampling distribution of t is used to determine significance.

Mann-Whitney

The Mann-Whitney test was used to test the differences between two group means on the rank ordered data. Using the observations ranked from smallest to largest for both groups, the number of times scores from the first group precede those from the second group is calculated and provides the U value. The U value is used to determine significance (Kerlinger, 1964).

Crosstabulation

In order to examine the relationships among the categorical variables crosstabulation was used. As a "joint frequency distribution of cases according to two or more classification variables," crosstabulation allows examination of the subcategories of a variable to determine distribution of the measure (Nie, et al., 1975).

For the analysis in this study crosstabulation was primarily used to determine the percent of observations for each subcategory under consideration. Chi-square values were not computed in most instances because of the multiple response nature of the data being analyzed with this method.

Spearman's Rho

In order to assess the relationship between problem severity and help sources used statistical procedures of correlation were used. Because the data to be analyzed was not

based on an interval scale, a nonparametric method was used. Spearman's rho or Spearman's rank correlation coefficient uses the ranks of the data to compute the correlation coefficient for the two variables of interest; the range of coefficient values is from -1 to +1, with those values indicating a perfect linear relationship between the ranks of the variables (Nie, et al. 1975). As a guideline for determining the relative strength of relationships using the possible range of correlation coefficients, labels suggested by Rountree (1981) were used:

0.0 to 0.2 very weak, negligible

0.2 to 0.4 weak, low

0.4 to 0.7 moderate

0.7 to 0.9 strong, high marked

0.9 to 1.0 very strong, very high (p.170)

The correlation coefficient does not allow determination of the percent of variation explained in one variable by another. In order to do so the correlation coefficient is sequenced and this value can be interpreted as the percent of variation explained in one variable by variation in the other (Rountree, 1981).

Criteria for Hypothesis Testing

In determining an appropriate significance level for decisions about the null hypothesis, consideration was given to the exploratory nature of the study. Given the limited amount of research in the area of Black and Hispanic medical students' retention as it relates to non-academic variables, this study provides an opportunity to examine relationships from a broad perspective and to determine direction for more targeted and rigorous future research. Since this is the case, relaxing some concern regarding Type I error (rejecting a true

null hypothesis) seems reasonable.

The rejection region or significance level for determining statistical significance on all tests is set at p=.10 to allow reasonable freedom in determining areas for future research. Analyses were conducted on the overall and subscales of each measure. Rejection of a null hypothesis for this study requires a significant difference on at least one scale of a measure under consideration.

Potential Limitations

The ex post facto nature of this study poses potential limitations on the treatment of results and interpretation of the data from the study (Kerlinger, 1964).

Because the study considers the relation of existing or retrospective independent variables to the dependent variable, there is no control over the independent variables and the process is more deductive than inductive. Kerlinger (1964) identifies these major weaknesses in ex post facto research, namely: "(1) the inability to manipulate independent variables, (2) the lack of power to randomize, and (3) the risk of improper interpretation." (p. 371).

Given these weaknesses, hypothesis testing, which allows for testing alternative explanations for the variations of the dependent variables, becomes essential. This study is therefore designed to test various hypotheses related to the dependent variables in an effort to increase control and support interpretation of results.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter presents an analysis of the research data. Each research question is restated with the associated hypotheses organizing the presentation of relevant data and a discussion of results. Hypotheses, data, and results which address the association between respondents' personal characteristics and measures of attitudes, uses of help resources and reasons for not using help resources are presented first, followed by those which examine the problems experienced and help sources used, and then those which present the association between academic difficulty and measures of preferences for sources of help, problem severity, and help sources used.

Demographic Characteristics

Research Question 1: What is the relationship between students' demographic characteristics and their attitudes toward seeking help, problems experienced, use of help resources, and reasons for not using help resources?

Null hypothesis 1.1a: Black and Hispanic medical students will not differ in their report of problems experienced.

Alternative hypothesis: Black and Hispanic medical students will differ in their report of problems experienced.

Using the severity rating for each concern area of Part III: Problems Experienced and Help Sought, respondents were grouped by ethnicity/race. A t-test was computed to determine significance between the two groups on each of the four concerns. None of the probability values met the criterion for significance (see Table 6). The null hypothesis is supported and the alternative is rejected. There does not appear to be a difference in the problems experienced by Black and Hispanic medical students.

Null hypothesis 1.1b: Black and Hispanic medical students will not differ in the number of formal help sources used to address non-academic concerns.

Alternative hypothesis: Black and Hispanic medical students will differ in the number of formal help sources used to address non-academic concerns.

Crosstabulations by race performed on the help sources used across all concern areas revealed that for Black students the formal help sources used most frequently were as follows: physician (53.4%); student affairs officer (30.1%); and faculty member of the same ethnicity (24.7%). For Hispanic students the formal help sources used most frequently were the following: student affairs officer (30%); physician (30%); and other faculty member (13.3%).

Independent t-tests by race conducted on the mean number of formal and informal help sources used for each of the problem areas reported in Part III produced probability values meeting the criteria for significance on three variables: Physical-Informal ($p = .091$), Emotional-Formal ($p = .013$), and Overall-Formal ($p = .010$); the variables of interest here are Emotional-Formal and Overall-Formal (Table 7). The null hypothesis is rejected and the alternative is supported.

Table 6

Mean Scores and t-Tests for Differences Between Black and Hispanic Medical Students' Problems Experienced

Variable	Black (n=73) Mean	SD	Hispanic (n=30) Mean	SD	Student's t	*p*
Physical	.71	1.14	.43	.86	1.36	.179
Familial	1.88	1.26	1.80	1.24	.28	.778
Interpersonal	2.29	1.09	12.33	1.25	.98	.334
Emotional	1.71	1.26	12.07	1.28	1.01	.317

$\alpha = .10$

Table 7

Mean Scores and t-Tests for Differences Between Black and Hispanic Medical Students' Use of Formal and Informal Help Sources by Area of Concern

Variable	Black (n=73) Mean	SD	Hispanic (n=30) Mean	SD	Student's t	*p*
Physical-Informal	.68	1.13	.37	.72	1.71	.091
Physical-Formal	.64	.81	.43	.77	1.24	.220
Familial-Informal	1.82	1.34	1.93	1.34	- .38	.702
Familial-Formal	.41	.90	.37	1.00	.21	.834
Interpersonal-Informal	2.30	1.57	2.43	1.81	- .35	.729
Interpersonal-Formal	.47	.71	.30	.65	1.14	.258
Emotional-Informal	1.93	1.64	2.17	1.76	- .63	.533
Emotional-Formal	.81	1.15	.33	.71	2.54	.013
Overall-Informal	3.07	1.61	3.53	1.43	-1.44	.154
Overall-Formal	1.68	1.38	.93	1.26	2.68	.010

Overall Black students used a greater number of formal sources to address concerns than did Hispanic students. Additionally, Black students used significantly more formal help sources when addressing emotional concerns.

Null hypothesis 1.2: Black and Hispanic medical students will not differ in their attitudes toward seeking psychological help.

Alternative hypothesis: Black and Hispanic medical students will differ in their attitudes toward seeking psychological help.

Independent t-tests were performed to assess the difference in means of Black and Hispanic respondents on the scales of Part I: Attitudes Toward Seeking Psychological Help (Table 8). None of the probability values met the criterion for significance ($p<.10$). The null hypothesis is not rejected. There is not sufficient evidence to suggest that Black and Hispanic medical students differ in their attitudes toward seeking psychological help.

Null hypothesis 1.3: Black and Hispanic medical students will not differ in their reasons for not using help resources.

Alternative hypothesis: Black and Hispanic medical students will differ in their reasons for not using help resources.

Independent t-tests were performed to assess the difference in means of Black and Hispanic respondents on all scales of Part IV: Reasons for Not Using Help Resources. Probability values met the criterion for significance ($p < .10$) on Scale 5 -Unfavorable Assessment of Providers (see Table 9). The null hypothesis is rejected and the alternative hypothesis is supported. Black students endorse an unfavorable assessment of providers (with emphasis on a lack of ethnic providers and a lack of competent ethnic providers) as their reason for not using help resources. Based on examination of the items associated with this

Table 8

Mean Scores and t-Tests for Black and Hispanic Medical Students on Scales of Attitudes Toward Seeking Psychological Help

Scale	Black (n=73) Mean	SD	Hispanic (n=30) Mean	SD	Student's t	*p*
Overall [k=20]	40.84	9.05	41.47	11.13	- .28	.784
Recognition of Need for Psychotherapeutic Help [Scale 1 k=8]	16.21	4.98	17.07	5.43	- .75	.457
Interpersonal Openness [Scale 2 k=6]	13.29	2.99	12.33	3.71	1.25	.218
Confidence in Mental Health Practitioner [Scale 3 k=3]	11.34	3.23	12.07	3.95	- .89	.378

α = .10

Table 9

Mean Scores and t-Tests for Black and Hispanic Medical Students on Scales of Reasons for Not Using Help Resources

Scale	Black (n=73) Mean	SD	Hispanic (n=30) Mean	SD	Student's t	*p*
Overall [k=17]	41.01	7.82	43.20	6.77	-1.42	.160
Personal Aversion to Seeking Services [Scale 4 k=5]	11.18	3.39	11.30	2.60	- .20	.844
Unfavorable Assessment of Providers [Scale 5 k=7]	17.27	5.06	19.27	4.97	-1.84	.071
Time [Scale 6 k=3]	6.40	2.39	6.53	2.64	- .24	.808

$\alpha = .10$

measure it appears that Black students identify the lack of ethnic/racial group helpers, and the lack of competent ethnic/racial group providers as their primary reasons for not using resources available, while Hispanic students endorse not experiencing a concern or crisis as reason their reason for not using available help resources.

Null hypothesis 1.4a: Black and Hispanic medical students will not differ in their preferences for sources of help.

Alternative hypothesis: Black and Hispanic medical students will differ in their preferences for sources of help.

Because the responses to the Part II: Preferences for Potential Help Sources measure are rank ordered, the Mann-Whitney test was used to test for mean differences on each help source. Probability values for counseling center professional of the same ethnicity ($p = .0009$) and other student ($p = .0035$) exceeded the criterion for significance (see Table 10). Additionally, cross-tabulations revealed that only Black respondents indicated preference, among their top three choices, for psychiatrist, psychologist, counseling center professional of same ethnicity, student affairs officer and faculty member of same ethnicity. These choices did not appear at all among Hispanic student preferences. Conversely, Hispanic students did not include the sources self, non-student friend and family member among their bottom three or least preferred help sources, while these sources did appear at a low frequency among Black student responses. Analysis of variance by college and race, on preference for formal and informal sources, indicated a significant difference ($p = .05$) on the means for Black and Hispanic students on formal sources of help, with Black students indicating preference for more formal sources than did Hispanic students. The null hypothesis is rejected and the alternate hypothesis is supported.

Table 10

Mann-Whitney Test of Preference for Potential Help Sources by Race

Counseling Center Professional of Same Ethnicity

Mean Rank	Cases
43.24	69 Black
64.16	29 Hispanic

		Corrected for Ties 2-tailed P
U = 575.5	W = 1860.5	Z = 3.3264 .0009

Other Student

Mean Rank	Cases
56.38	72 Black
37.66	29 Hispanic

		Corrected for Ties 2-tailed P
U = 657.0	W = 1092.0	Z = -2.9223 .0035

Null hypothesis 1.4b: Black and Hispanic medical students, within institutions will not differ in their preference for sources of help.

Alternate hypothesis: Black and Hispanic medical students, within institutions will differ in their preference for sources of help.

Examination of Part II crosstabulations on the top three and bottom three preferences by college and ethnicity/race indicated that consistently the top three choices for both groups of students at all four colleges included self, family member, and non-student friend in some configuration. Greater variability was observed among the bottom three or least preferred sources of help across the ethnic/racial groups within their colleges. All, except COM Hispanic students, included other faculty members among their least preferred help sources.

Analysis of variance was performed on the preference measure by collapsing help sources into two categories, formal and informal, and calculating the mean of the ranks. ANOVA results on formal sources by college and ethnicity/race revealed a significant source of variance to be explained by race ($p = .050$), but not by college (Table 11). No interaction effect was observed and no significant differences were found in the analysis of informal sources of help.

Based on these results the null hypothesis is supported and the alternative hypothesis is rejected. Although Black and Hispanic students differ in their preference for help sources, when the observation is made specifically within each institution no significant differences in the preferences of the two groups are observed.

Table 11

Analysis of Variance on Preference for Informal and Formal Help Sources by College and Race

INFORMAL

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	13.833	4	3.458	1.377	.248
College	5.853	3	1.951	.777	.510
Race	5.121	1	5.121	2.038	.157
2-Way Interactions					
College X Race	1.654	3	.551	.219	.833
Explained	15.487	7	2.212	.881	.525
Residual	236.127	94	2.512		
Total	251.613	101	2.491		

FORMAL

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	8.335	4	2.084	1.170	.329
College	.671	3	.224	.125	.945
Race	6.992	1	6.992	3.926	.050
2-Way Interactions					
College X Race	1.756	3	.585	.329	.805
Explained	10.091	7	1.442	.809	.582
Residual	167.420	94	1.781		
Total	177.511	101	1.758		

Null hypothesis 1.5: Female and male students will not differ in their attitudes toward seeking help.

Alternative hypothesis: Female and male students will differ in their attitudes toward seeking help.

Independent t-tests for the scales of Part I: Attitudes Toward Seeking Psychological Help by gender produced probability values which met the criterion for significance ($p < .10$) on the overall scale for this measure, and Scale 1 - Recognition of Need for Psychotherapeutic Help (see Table 12). All scales indicated positive attitudes by female respondents.

ANOVA by sex and race was run for each scale of Part I. Results indicated significant differences by sex on the overall scale, Scale 1 - Recognition of Need for Psychotherapeutic Help, and Scale 2 - Interpersonal Openness (Table 13).

Based on these analyses the null hypothesis is rejected and the alternative is supported. Female students expressed more positive attitudes toward seeking psychological help, they indicated greater likelihood of recognizing a need for psychotherapeutic help, and indicated greater interpersonal openness.

Null hypothesis 1.6: Female and male students will not differ in their reasons for not using help resources.

Alternative hypothesis: Female and male students will differ in their reasons for not using help resources.

Independent t-tests for the items and scales of Part IV: Reasons for Not Using Help Resources by sex produced no significant findings (Table 14). ANOVA by sex and race did not indicated significant difference between the means for females and males, however a significant interaction effects were noted on Scale 4: Personal Aversion to Seeking Services

Table 12

Mean Scores and t-Tests for Female and Male Medical Students on Scales of Attitudes Toward Seeking Psychological Help

Scale	Female (n=68) Mean	SD	Male (n=35) Mean	SD	Student's t	*p*
Overall [k=20]	39.84	9.66	43.31	9.35	-1.77	.081
Recognition of Need for Psychotherapeutic Help [Scale 1 k=8]	15.59	4.87	18.14	5.18	-2.42	.018
Interpersonal Openness [Scale 2 k=6]	12.69	3.31	13.63	3.03	-1.44	.154
Confidence in Mental Health Practitioner [Scale 3 k=3]	11.56	3.37	11.54	3.67	.02	.989

$\alpha = .10$

Table 13

Analysis of Variance on Scales of Attitudes Toward Seeking Psychological Help by Gender and Race

PART I

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	279.199	2	139.600	1.504	.227
Gender	270.732	1	270.732	2.916	.091
Race	.002	1	.002	.000	.997
2-Way Interactions					
Gender x Race	26.661	1	26.661	.287	.593
Explained	305.860	3	101.953	1.098	.354
Residual	9190.101	99	92.829		
Total	9495.961	102	93.098		

SCALE 1

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	154.371	2	77.186	3.065	.051
Gender	138.603	1	138.603	5.504	.021
Race	3.574	1	3.574	.142	.707
2-Way Interactions					
Gender x Race	4.073	1	4.073	.162	.688
Explained	158.444	3	52.815	2.097	.105
Residual	2493.109	99	25.183		
Total	2651.553	102	25.996		

SCALE 2

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	47.890	2	23.945	2.331	.103
Gender	28.525	1	28.525	2.777	.099
Race	27.586	1	27.586	2.685	.104
2-Way Interactions					
Gender x Race	.002	1	.002	.000	.990
Explained	47.892	3	15.964	1.554	.205
Residual	1017.099	99	10.274		
Total	1064.990	102	10.441		

Table 14

Mean Scores and Statistical Values for Female and Male Medical Students on Scales of Reasons for Not Using Help Resources

Scale	Female (n=68) Mean	SD	Male (n=35) Mean	SD	Student's t	*p*
Overall [k=17]	41.09	7.66	42.74	7.36	-1.07	.290
Personal Aversion to Seeking Services [Scale 4 k=5]	10.87	2.97	11.89	3.46	-1.48	.144
Unfavorable Assessment of Providers [Scale 5 k=7]	17.81	5.39	17.94	4.52	- .13	.894
Time [Scale 6 k=3]	6.21	2.35	6.89	2.61	-1.29	.200

$\alpha = .10$

(Table 15). This finding indicates that Hispanic males showed greatest disagreement with this scale, but opposite effects exist on race and sex dimensions suggesting additional effects associated with each of those dimensions. These results do not offer sufficient support for the alternative hypothesis; therefore, the null hypothesis is not rejected. Differences in this regard can not be attributed to gender alone.

Null hypothesis 1.7: Traditional aged and non-traditional aged students will not differ in their attitudes toward seeking psychological help.

Alternative hypothesis: Traditional aged and non-traditional aged students will differ in their attitudes toward seeking psychological help.

Independent t-test for scales of Part I by age produced a probability value which met the criterion for significance ($p < .10$) on Scale 3: Confidence in Mental Health Practitioners (see Table 16). ANOVA by age and race (Table 17) also revealed significant differences by age on Scale 3 ($p = .054$).

The null hypothesis is rejected and the alternative is supported. Non-traditional aged students appear to have more positive attitudes toward seeking help particularly as related to their confidence in mental health practitioners.

Null hypothesis 1.8: Traditional aged and non-traditional aged students will not differ in their reasons for not using help resources.

Alternative hypothesis: Traditional aged and non-traditional aged students will differ in their reasons for not using help resources.

Independent t-tests by age on Part IV indicated probability values which met the

Table 15

Analysis of Variance on Scales of Reasons for Not Using Help Resources by Gender and Race

Scale 4: Personal Aversion to Seeking Services

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	24.029	2	12.014	1.225	.298
Sex	23.713	1	23.713	2.418	.123
Race	.080	1	.080	.008	.928
2-Way Interactions					
Sex x Race	28.327	1	28.327	2.888	.092
Explained	52.346	3	17.452	1.779	.156
Residual	970.945	99	9.808		
Total	1023.301	102	10.032		

α=.10

Table 16

Mean Scores and t-Tests for Medical Students by Age Groups on Scales of Attitudes Toward Seeking Psychological Help

Scale	Traditional (n=68) Mean	SD	Non-Traditional (n=30) Mean	SD	Student's t	*p*
Overall [k=20]	41.49	9.24	39.20	9.66	1.09	.279
Recognition of Need for Psychotherapeutic Help [Scale 1 k=8]	16.53	4.74	16.20	5.68	.28	.782
Interpersonal Openness [Scale 2 k=6]	13.03	3.06	12.47	3.38	.78	.438
Confidence in Mental Health Practitioner [Scale 3 k=3]	11.93	3.47	10.53	2.96	2.03	.046

$\alpha = .10$

Table 17

Analysis of Variance on Scales of Attitude Toward Seeking Psychological Help by Age and Race

Scale 3: Confidence in Mental Health Practitioners

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	56.228	2	28.114	2.531	.085
Age	42.345	1	42.345	3.812	.054
Race	15.827	1	15.827	1.425	.236
2-Way Interactions					
Gender x Race	2.193	1	2.193	.197	.658
Explained	58.421	3	19.474	1.753	.161
Residual	1044.079	94	11,107		
Total	1102.500	97	11.366		

α=.10

criterion for significance on Scale 4: Personal Aversion to Seeking Services ($p = .058$) (Table 18).

ANOVA by age and race also produced a significant value for Scale 4; with non-traditional aged students endorsing aversion as a reason for not seeking services (Table 19).

The null hypothesis is rejected and the alternative hypothesis is supported. Traditional and non-traditional aged students seem to differ significantly in their endorsed reasons for not using help resources; traditional aged students seem to have more of a personal aversion to seeking services than do their non-traditional aged counterparts.

Null hypothesis 1.9: Preclinical level and clinical level students will not differ in their attitudes toward seeking psychological help.

Alternative hypothesis: Preclinical level and clinical level students will differ in their attitudes toward seeking psychological help.

Independent t-tests by class for the scales of Part I produced probability values which met the criterion for significance on Scale 3: Confidence in Mental Health Practitioners (Table 20), indicating positive attitudes by clinical level students. ANOVA by class and race also indicated significant differences by class on Scale 3 (Table 21).

Based on these analyses the null hypothesis is rejected and the alternative is supported. There is evidence that clinical level students have more positive attitudes toward seeking psychological help than do preclinical students, based on their greater confidence in mental health practitioners.

Null hypothesis 1.10: Preclinical level and clinical level students will not differ in their reasons for not using help resources.

Table 18

Mean Scores and Statistical Values for Medical Students by Age Groups on Scales of Reasons for Not Using Help Resources

Scale	Traditional (n=68) Mean	SD	Non-Traditional (n=30) Mean	SD	Student's t	*p*
Overall [k=17]	41.90	7.03	41.30	8.33	.34	.733
Personal Aversion to Seeking Services [Scale 4 k=5]	10.78	3.03	12.13	3.26	-1.94	.058
Unfavorable Assessment of Providers [Scale 5 k=7]	18.40	4.77	16.83	5.09	1.43	.159
Time [Scale 6 k=3]	6.43	2.18	6.60	3.10	- .28	.783

$\alpha = .10$

Table 19

Analysis of Variance on Scales of Reasons for Not Using Help Resources by Age and Race

Scale 4: Personal Aversion to Seeking Services

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	38.366	2	19.183	1.977	.144
Age	37.879	1	37.879	3.904	.051
Race	.208	1	.208	.021	.884
2-Way Interactions					
Age x Race	10.821	1	10.821	1.115	.294
Explained	49.187	3	16.396	1.690	.175
Residual	912.129	94	9.704		
Total	961.316	97	9.910		

α=.10

Table 20

Mean Scores and t-Tests for Medical Students by Class Standing on Scales of Attitudes Toward Seeking Psychological Help

Scale	Pre-Clinical (n=56) Mean	SD	Clinical (n=45) Mean	SD	Student's t	*p*
Overall [k=20]	42.38	10.55	39.64	8.33	1.45	.149
Recognition of Need for Psychotherapeutic Help [Scale 1 k=8]	17.14	5.32	15.91	4.67	1.24	.219
Interpersonal Openness [Scale 2 k=6]	13.11	3.23	12.84	3.27	.40	.687
Confidence in Mental Health Practitioner [Scale 3 k=3]	12.13	3.96	10.89	2.67	1.87	.065

$\alpha = .10$

Table 21

Analysis of Variance on Scales of Attitude Toward Seeking Psychological Help by Class and Race

Scale 3: Confidence in Mental Health Practitioners

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	47.734	2	23.867	2.012	.139
Class	33..586	1	33.586	2.832	.096
Race	.002	1	.002	.000	.997
2-Way Interactions					
Class x Race	14.433	1	14.433	1.217	.273
Explained	62.167	3	14.4333	1.217	.273
Residual	1150.526	97	11.861		
Total	1212.693	100	12.127		

$\alpha = .10$

Alternative hypothesis: Preclinical level and clinical level students will differ in their reasons for not using help resources.

Independent t-tests by class for the scales of Part IV did not produced any probability values which met the criteria for significance (Table 22).

ANOVA by class and race was run for the scales of Part IV and again no significant differences were identified (Table 23). Significant interaction effects between race and class were found on the overall scale and Scale 5.

Based on these analyses, the null hypothesis is not rejected. There does not appear to be a distinct difference between preclinical and clinical level students in terms of their reasons for not using help resources; however, there does appear to be an opposite effect of race and class across the groups in terms of their overall reasons for not using help and their assessment of providers. Hispanic students in the preclinical levels of study disagree with the presented reasons for not using help sources and do not identify providers as a reason for not using resources. Hispanic students in the clinical years of study do endorse these as reasons, while the opposite combination is true for Black students. Differences can not simply be explained by class standing.

Summary

The examination of help-seeking attitudes preferences and behaviors as associated with respondents' personal characteristics indicate that although Black and Hispanic students do not differ in problems experienced, Black students used a greater number of formal help sources to address concerns. With regard to reasons for not using help resources, Black students associated their reasons with unfavorable assessment of providers while Hispanic

Table 22

Mean Scores and t-Tests for Medical Students by Class Standing on Scales of Reasons for Not Using Help Resources

Scale	Pre-Clinical (n=56) Mean	SD	Clinical (n=45) Mean	SD	Student's t	*p*
Overall [k=17]	42.30	7.85	40.69	7.30	1.07	.288
Personal Aversion to Seeking Services [Scale 4 k=5]	11.13	3.05	11.24	3.39	- .18	.854
Unfavorable Assessment of Providers [Scale 5 k=7]	18.48	5.48	17.00	4.60	1.48	.143
Time [Scale 6 k=3]	6.71	2.46	6.11	2.41	1.24	.218

$\alpha = .10$

Table 23

Analysis of Variance on Scales of Reasons for Not Using Help Resources by Class and Race

Scale 5: Unfavorable Assessment of Providers

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	120.798	2	60.399	2.450	.092
Class	41.777	1	41.777	1.695	.196
Race	65.988	1	65.988	2.677	.105
2-Way Interactions					
Class x Race	122.538	1	122.538	4.970	.028
Explained	243.336	3	81.112	3.290	.024
Residual	2391.456	97	24.654		
Total	2634.792	100	26.348		

α=.10

students endorsed having no concern to be addressed as the reason. Preferences for help sources were in the direction of formal sources for Black and informal for Hispanic students. The college Black and Hispanic students attend had no effect on preferences for help sources.

Female, non-traditional aged, and clinical level students have more positive attitudes toward seeking psychological help. Female students recognized the need for psychotherapeutic help and showed greater interpersonal openness. Both non-traditional aged, and clinical level students display confidence in mental health practitioners.

No significant differences in terms of reasons for not using help resources were apparent by gender and class standing. However for age, non-traditional aged students identified the providers as lacking, while traditional aged students seemed to have a personal aversion to seeking services. There do appear to be additional effects to be examined in terms of reasons for not using help resources when race is combined with gender or class standing.

Problems Experienced and Help Sources Used

Research Question 2: How does problem severity relate to the number and type of help sources used by students to address the categories of non-academic concerns?

Null hypothesis 2.1a: Students reporting greater problem severity will not use more sources of help than will students experiencing lesser problem severity for each concern area.

Alternative hypothesis: Students reporting greater problem severity will use more sources of help than will students experiencing lesser problem severity for each concern area.

Spearman correlation coefficients were calculated for Part III using the severity values for each concern area (physical, familial, interpersonal and emotional), correlated with the values for the informal and formal help sources used (Table 24). The correlations of interest were those which paired the concern area with the informal and formal help sources used to address that particular concern (e.g., physical correlated with Physical-Informal and with Physical-Formal).

Examination of values computed indicated all correlations of interest to be significant at or beyond a probability value of p=.001, and indicated positive relationships existed for each pair.

Of the eight pairs examined, five had moderately strong correlations, suggesting substantial relationships (physical/Physical-Informal, rho=.5843; physical/Physical-Formal, rho=.5576; familial/Familial-Informal, rho=.4601; familial/Familial-Formal, rho=.4412; and emotional/Emotional-Formal, rho=.4315). The three remaining pairs had low correlation coefficients, suggesting small or weak relationships. For these pairs the correlation coefficients were: emotional/Emotional-Informal, rho=.3639; interpersonal/Interpersonal-Informal, rho=.3362; and, interpersonal/Interpersonal-Formal, rho=.3017.

The observations that all pairs covary indicates the tendency for students experiencing greater problem severity to seek more help sources. The strength of the relationships for the majority of pairs suggest a substantial relationships between the pairs. Accordingly, the null hypothesis is rejected and the alternative is supported; it appears that students reporting greater problem severity use more help sources than students experiencing lesser problem severity.

Table 24

Spearman Correlation Coefficients for Concern Areas with Informal and Formal Help Sources Used

N = 103	PINFORM	PFORM	FINFORM	FFORM	IFORM	EINFORM	EFORM	OINFORM	OFORM
Physical	.5843	.5576	.1518	-.0956	-.0287	.0924	.1190	.3120	.3352
Familial	.0757	.1405	.4601	.4412	.1023	.1898	.1419	.1632	.2345
Interpersonal	.0943	.0164	.0887	.0145	.3017	.3362	.1674	.1238	.1570
Emotional	.0367	.0994	.0686	.2799	.2216	.3639	.4315	.0905	.3694

Null hypothesis 2.1b: Students reporting greater problem severity will not identify use of more formal help sources then will students reporting lesser problem severity.

Alternative hypothesis: Students reporting greater problem severity will identify use of more formal help sources than will students reporting lesser problem severity.

Results from the correlational analysis, as described above, were used to compare the relationship between informal and formal sources of help for each concern area (see Table 24).

The correlation coefficients and coefficients of determination (rho^2) for informal scales were higher than for the corresponding formal scales on three of the four sets under investigation (i.e., Physical-Informal,/Physical-Formal, Familial-Informal/Familial-Formal, Interpersonal-Informal/Interpersonal-Formal). For the emotional concern area, the correlation coefficient and coefficient of determination for Emotional-Formal (rho = .4315) exceeded that of Emotional-Informal (rho=.3639).

Because a majority of the correlation coefficients for the informal scales exceeded those of the formal scales the null hypothesis is not rejected, suggesting there is no difference in the number of formal help sources used by students based on greater versus lesser problem severity except for in the case of emotional concerns.

Null hypothesis 2.2: When problem severity is held constant, use of formal help resources will not differ for colleges having higher percentages of Black and Hispanic students.

Alternative hypothesis: When problem severity is held constant, use of formal

help resources will differ for colleges having higher percentages of Black and Hispanic students.

ANOVA by college was performed to test the difference between the mean number of formal and informal source of help used by students for each concern category as reported in Part III (Table 25). Problem severity values of 2 or greater were used in the analysis. Results indicated significant differences across colleges for one category, specifically Emotional-Formal, for which the probability value is $p = .022$.

An examination of the group means on Emotional-Formal for each college suggests COM ($x = 1.86$) to have a mean, with regard to this variable, significantly different from CHM ($x = 1.07$) UM ($x = .50$) and WAYNE ($x = .62$). These findings are consistent with the differences in the percent of Black and Hispanic student enrollment at the colleges (COM - 8.4%; CHM - 18.4%; UM - 16.4%; and WAYNE - 15.4%).

The null hypothesis is rejected and the alternative is supported. For students experiencing emotional concerns, students attending the school with the smallest percent of Black and Hispanic student enrollment reported using a greater number of formal support services.

Summary

In examining the problems experienced and help sources used it appears that students reporting greater problem severity use more help sources than do students reporting lesser problem severity. Only for emotional concerns do the number of formal help sources used exceed that of informal help sources used. Additionally, there is a significant difference in the number of formal help sources used by students attending schools with lower percentages of Black and Hispanic students enrolled, indicating greater use of formal sources in that instance.

Table 23

Analysis of Variance on Formal Sources of Help Used for Emotional Concerns by College

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects					
College	14.601	3	4.867	3.495	.022
Explained	14.601	3	4.867	3.495	.022
Residual	68.229	49	1.392		
Total	82.830	52	1.593		

$\alpha = .10$

Academic Difficulty

Research Question 3: How do preferences for sources of help, problem severity, and help sources used by students to address non-academic concerns relate to academic difficulty experienced by students?

Null hypothesis 3.1: Students reporting greater problem severity will not differ from students reporting lesser problem severity with regard to academic risk.

Alternative hypothesis: Students reporting greater problem severity will differ from students reporting lesser problem severity with regard to academic risk.

ANOVA for each concern area by academic risk was performed. None of the obtained probability values met the criterion for statistical significance. Additionally, independent t-tests examining the problem severity for groups of students who appeared before the student evaluation/promotion committee and were dismissed versus those who appeared before the committee but were not dismissed revealed no significant differences (Table 26). The null hypothesis is not rejected based on these analyses.

There does not appear to be evidence that reported problem severity is significantly associated with academic risk for the respondents.

Null hypothesis 3.2: Students experiencing higher levels of academic risk will not differ from those experiencing lower levels in their use of formal help sources.

Alternative hypothesis: Students experiencing higher levels of academic risk will differ from those experiencing lower levels in their

Table 26

Mean Scores and t-Tests for Differences Between Students with Committee and Committee/Dismissal on Problems Experienced

Variable	COSE (n = 16) Mean	COSE (n = 16) SD	COSDIS (n = 13) Mean	COSDIS (n = 13) SD	Student's t	*p*
Physical	.88	1.36	.31	1.11	1.24	.227
Familial	1.75	1.29	2.00	1.63	- .45	.657
Interpersonal	2.44	1.15	2.62	1.12	- .42	.678
Emotional	1.75	1.48	1.77	1.48	- .03	.973

$\alpha = .10$

use of formal help sources.

Crosstabulations by academic risk for help sources used to address all categories of concerns indicated the greatest percents and totals, for the four levels of academic risk, to be concentrated between the sources self and family member (each having 77.7% of the responses). Of the possible formal help sources physicians and student affairs officer received the highest percents and totals, 46.6% and 30.1% respectively.

ANOVA by academic risk was performed to test the difference between the mean number of formal and informal sources of help used by students for each concern category reported in Part III (Table 27). Results indicated significant differences between means for the four levels of academic risk for one category, specifically Interpersonal-Formal, for which the probability value is $p = .066$; means for students experiencing no academic difficulty ($x = .22$) or some course difficulty ($x = .37$) were lower than for those appearing before committee ($x = .69$) or dismissed ($x = .65$). The null hypothesis is therefore rejected, and the alternative is supported. For students experiencing interpersonal concern, use of formal help sources appears to be higher among those at greater academic risk.

Null hypothesis 3.3: Students experiencing higher levels of academic risk will not differ from those experiencing lower levels in their preference for sources of help.

Alternative hypothesis: Students experiencing higher levels of academic risk will differ from those experiencing lower levels in their preference for sources of help.

Crosstabulations by academic risk of the top three and bottom three preferences indicated by respondent in Part II indicated self (82.4%) to be the most preferred source of

Table 27

Analysis of Variance by Academic Risk on Formal and Informal Sources of Help Used

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects					
Academic Risk	3.418	3	1.139	2.472	.066
Explained	3.418	3	1.139	2.472	.066
Residual	45.631	99	.461		
Total	49.049	102	.481		

α=.10

help across all levels of academic risk, followed by family member (75.5%). The least preferred sources of help across all levels of academic risk was psychiatrist.

ANOVA by academic risk performed on the mean rank of formal and informal sources of help revealed no significant difference for either category. The null hypothesis is not rejected.

Preference for sources of help does not seem to differ based on level of academic risk.

Summary

In examining the association between academic risk and the relevant measures it is found that there is no evidence to support a difference in academic risk based on greater versus lesser problem severity. Preference for help sources also does not seem to differ based on level of academic risk. However, for students experiencing interpersonal concerns use of formal help sources appears to be higher among those at greatest academic risk.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

Review of the Problem

There is substantial evidence that indicates an imbalance between the number of heath care professionals and the number of people most in need of health care services. For underrepresented ethnic/racial groups designated as minority (i.e., Blacks, Hispanics and Native Americans), who are underserved by the health care community, increased access to medical care is closely linked to the number of minority group physicians available. Minority group physicians have been found to serve disproportionately more patients of their ethnic/racial group, to more often practice in health-manpower shortage areas and to serve a higher percentage of Medicaid patients.

Various public and private efforts have been initiated to increase the number of underrepresented group physicians. The primary focus of such efforts, since the 1970's, has been increasing the number of minority group students enrolled in medical school. Although some gains have been made in numbers, the goal of achieving parity for minority group medical students has never been met. The rate of growth in the underrepresented minority population, combined with the issues of the quantity and quality of the minority medical school applicant pool directly impacts achievement of the goal. Given the factor which works

against providing appropriate resources for unmet health care needs diverse strategies are necessary.

In the wake of demographic and educational preparation trends which impede significantly increased numbers of underrepresented minority group students, efforts to maximize the potential of those students admitted to medical school must be considered. The retention of minority group medical students becomes an essential factor in providing care to underserved populations.

Research regarding student retention is limited with regard to the factors associated with an increasingly more diverse student population, and in terms of the differences in attrition and retention which may be associated with a diverse student population. Although most research related to medical school retention focuses on academic factors there is considerable evidence to suggest the need for a more systemic examination of the non-academic factors which lead to medical student attrition, particularly among underrepresented group students.

This research has attempted to explore the impact of non-academic concerns on underrepresented minority groups medical students and the students' approach to addressing non-academic concerns.

The purpose of this study was to examine the help-seeking attitudes, preferences and behavior of Black and Hispanic medical students in Michigan, and to determine the relationship of these factors to the academic performance of the students.

Design and Method

A self report questionnaire was used to assess each of the dependent variables and to

collect associated demographic and academic data from respondents attending the four colleges of medicine in Michigan. The questionnaire included five measures: Part I: Attitudes Toward Seeking Psychological Help; Part II: Preferences for Potential Help Sources Index; Part III: Problem Experiences and Help Sought; Part IV: Reasons for Not Using Help Resources; and Part V: Academic Performance and Demographics.

Various statistical procedures were used to test the hypotheses for this descriptive study. Procedures included parametric and nonparametric methods to analyze differences and relationships across the measure. The methods were ANOVA, Kruskal-Wallis One-Way, Student's t-test, Mann-Whitney test, crosstabulations and Spearman's Correlation Coefficient. The measures were assessed for differences among respondent by ethnicity/race, age, gender, class standing and college attended. Analysis regarding problem severity and use of help sources and academic risk were also conducted.

Results

Hypotheses specific to the three research questions were tested using the methods indicated above. A total of ten (10) of the null hypotheses were rejected in favor of the alternative hypotheses.

Demographic Characteristics

For the first research question, which addresses the relationship between students' demographic characteristics and the measures, seven of the twelve null hypotheses were rejected; three of these related to differences by race, one to differences by gender, two to differences by age groupings and one to class standing.

Tests for the hypothesis relating to differences between Black and Hispanic medical students on the problems experienced indicated no significant differences between the two groups.

Analysis of the differences by race on the number of formal help sources used to address non-academic concerns indicated that Black students used a greater number of formal help sources to address personal concerns, and specifically used more help sources when addressing emotional concerns, than did Hispanic students.

No significant differences were found between Black and Hispanic students with regard to their attitude toward seeking psychological help.

There were significant differences found between Black and Hispanic medical students with regard to their reasons of not using help resources. Specifically, Black students to a greater extent endorsed an unfavorable assessment of providers while Hispanic students endorsed not having a concern or crisis.

Black and Hispanic students were found to differ significantly in their preferences for sources of help, with Black students indicating preferences for significantly more formal sources of help than did Hispanic students.

When differences between students by race within colleges were examined for the preferences measure no significant differences and no interaction effects were found suggesting that college of attendance was not a factor in determining preference between Black and Hispanic medical students.

Respondents' attitudes toward seeking psychological help were found to be significantly different by gender. Female students indicated more positive attitudes toward seeking psychological help, indicated greater likelihood of recognizing need for

psychotherapeutic help, and indicated greater interpersonal openness. Male students, more than female students, endorse a positive attitude toward an emotional problem being solved with professional help rather than alone.

Results of the examination of reasons for not using help resources yielded insufficient data to reject the null hypothesis that female and male students will not differ in their reasons for not using help resources. However, female students did indicate greater agreement with a preference for family helpers.

Significant differences were found between traditional aged and non-traditional aged students with regard to their attitudes toward seeking psychological help. Non-traditional aged students appear to have more positive attitudes toward seeking help as evidenced by a greater confidence in mental health practitioners.

With regard to reason for not using help resources significant differences were found to exist for the age groups. Non-traditional aged students perceived providers to be lacking or unavailable, while traditional aged students indicated a personal aversion to seeking services and a preference for family helpers.

Analysis of the differences between preclinical and clinical level students on attitudes toward seeking psychological help yielded significant differences, suggesting clinical level students have more positive attitudes.

Evidence to suggest significant differences between preclinical and clinical level students in terms of reasons for not using help resources was insufficient; the null hypothesis was not rejected.

Problems Experienced and Help Sought

The second research question is concerned with problems experienced and help sought to address those problems. Three hypotheses were posed; two were found to yield significant differences.

Analysis of the difference between students reporting greater versus lesser problem severity on the number of help sources used indicated significant differences. It appears that students reporting greater problem severity use more help sources than do students experiencing lesser problem severity.

The examination of differences between students based on problem severity as related to use of formal help sources revealed a significant difference for sources used to address emotional concerns only. This finding was insufficient for rejection of the null hypothesis.

Significant differences were found between colleges for users of formal help resources. For students experiencing emotional concerns, students attending the college with the smallest percent of Black and Hispanic student enrollment reported using a greater number of formal support services.

Academic Difficulty

The third research question addressed relationships between the measures and reported academic difficulty. One of the three null hypotheses was rejected.

Testing of the hypothesis associated with the difference between students experiencing greater versus lesser problem severity on academic risk suggested no significant differences exist.

With regard to the differences between higher and lower academic risk students' use of formal help sources, it was found that for students experiencing interpersonal concerns,

use of formal help sources appears to be higher among those at greater academic risk.

No differences were found for higher academic risk students versus lower academic risk students on preferences for sources of help.

Conclusions and Discussion

Demographic Characteristics

The results associated with help seeking attitudes and behavior, and demographic characteristics, can most readily be categorized by effects based on race, gender, age and class standing.

In examining responses by race results showed Black and Hispanic students did not differ significantly on the problems they experienced, nor in their attitudes toward using psychological help; nevertheless, Black students used more formal help sources to address their concerns than did Hispanic students. Black students endorsed an unfavorable assessment of providers as reason for not using help resources, while Hispanic students endorsed not having a concern to address as reason. Preferences for help sources were found to be significantly different by ethnicity/race, but not further differentiated by college attended.

Both Black and Hispanic students identified interpersonal problems as their greatest concern, followed respectively by the familial, emotional, and physical categories. Convergence in this regard suggests Black and Hispanic students are similarly affect by non-academic concerns. Specifically, relationships maintained during medical school can have a considerable impact on the individual student. Interpersonal concern may be associated with significant others, peers, or faculty and staff of the college. Given the possible range of

people with whom conflict may be associated for the medical student perception of impact on progress through medical school may vary greatly.

Consistent with a sentiment expressed by a respondent as an additional reason for not using help resources, students often will "prefer to keep personal life and school separate" not realizing how completely intertwined the two can be. It is probably that many of the interpersonal concerns experienced by Black and Hispanic medical students are closely associated with conflicts experienced in, or due to, the medical school environment. The findings of Edwards and Zimet (1976) indicated that a high percent of students in their study endorsed a lack of time for recreation, family and friends, and difficulty getting to know faculty members will as significant concerns. These concerns would likely be manifest in interpersonal conflicts, and for the Black or Hispanic student could serve as a substantial distraction from the academic task.

The fact that Black students were found to use more formal supports suggests that somehow Black students have accepted formal resources as a viable option in a way Hispanic students have not. The mean for Hispanic students on the informal sources used scales exceeded the mean of Black students on all except physical-informal. This could be attributable to a difference between the groups regarding cultural acceptability of professional help-seeking, not addressed by the measure, a difference in association with or knowledge of formal helpers, and/or perceived acceptance in the formal help environment. This difference poses the potential of the two groups starting at comparable points in terms of concerns and attitudes yet ending up at very different outcome points based on employing different levels of interventions in course.

Very closely associated with the difference in use of formal and informal help sources

by Black and Hispanic medical students is the difference in their reasons for not using help resources. For Black students more than Hispanic students an unfavorable assessment of providers is a key reason for not using help resources, while for Hispanic students more than Black students having no concern to address is a key reason.

For Black students, who demonstrate their willingness to use formal help sources, the issue becomes their assessment of the providers made available; such that increasing the Black student's access to providers who are "attractive" in terms of competence and ethnicity will increase the probability of use of formal resources. Hispanic students present an interesting dilemma in that they do not differ from Black students in problems experienced, but primarily use informal help sources, and differentially indicate no concerns or a key reason for not using help resources. These factors taken together suggest that Hispanic students may minimize concerns in order to justify their help-seeking behavior, and may as a result end up in greater jeopardy. As Brown (1978) indicated, a decision to seek assistance may be associated with the impact of troublesome life events, mediated by the individual's sense of self reliance and perceived ability to/ preparedness to manage stress; accordingly Hispanic students may perceive their ability to address concerns at a level that neutralizes the severity of a concern decreasing the need for professional/formal help.

Although different than the actual sources used to address an experienced concern, the assessment of preference for potential help sources yielded comparable findings. Black students were found to prefer significantly more formal potential help sources than were Hispanic students. Observation of preferences by college to determine differential patterns, revealed no differences at that level. Black and Hispanic student experiences within colleges did not delineate additional variance between the groups. The colleges do not seem to be

providing services which are perceived differently by the groups.

When Cheatham, Shelton and Ray (1987) examined race, sex and causal attribution difference in the help-seeking behavior of Black and White students they found more similarities than differences between the racial groups, with both preferring network (informal) sources over professional sources. The findings of the present study indicate differences between two ethnic/racial groups often classified together as minority and too often treated homogeneously.

Results by gender on attitudes toward psychological help and reasons for not using help resources indicated significant differences on the attitude measure and insufficient evidence on the reason measure.

Comparable to the findings reported by Fisher and Turner (1970) and Kligfeld and Hoffman (1979) Black and Hispanic female medical students appear to have more positive attitudes toward seeking psychological help. Female medical students may be a good resource for their peers in encouraging proactive help-seeking behavior. Ways of reaching male medical students need to be identified; the positive attitude on the part of male respondents to the item associated with getting professional help for an emotional problem suggests there may be some openness on the part of males to seeking assistance.

Agreement/disagreement with reasons for not using help resources statements did not differ significantly by gender. This suggests some uniformity regarding reasons for not using available resources in the wake of differing attitudes toward psychological help. Further assessment of male attitudes and possible other factors seems necessary to determine gender differences associated with help-seeking.

Non-traditional aged and traditional aged students were found to differ significantly

in both attitudes and reasons. Non-traditional aged students indicated more positive attitudes toward seeking psychological help, primarily associated with their confidence in mental health practitioners. They also identified reasons for not using help resources as associated with a lack of individuals to help and a lack of ethnic providers. Consistent with their more negative attitudes toward seeking psychological help traditional aged students endorsed a personal aversion to seeking service and a preference for family helpers.

It seems evident that older students will seek out and use formal help sources as they are able to identify helpers whom they assess positively. Younger students seem to base their rejection of help sources more on personal aversions than on their assessment of providers. These findings are consistent with those reported by Pliner and Brown (1985) which showed age to be positively correlated with seeking formal sources.

These age differences suggest differences based on different developmental stages of life and differences in life experience. Consistent with Erickson's (1963) psychological theory of development, most traditional aged medical students are anchored in or emerging from the young adult stage where the task is that of resolving the intimacy versus isolation conflict. The young adult is attempting to strengthen the sense of identity forged in adolescence, and to take on the task of establishing a capacity for intimacy. The non-traditional aged student is the adult stage addressing the crisis of generativity versus stagnation which includes self enrichment, productivity and creativity and establishment of the next generation.

The different developmental stages of these two groups of students may result in different perceptions of services offered to them. for younger students formal help sources may seem too threatening as they seek to establish their identity; because the older student has moved beyond that point their identity grounding and concern for productivity allow and

encourage their use of formal help resources to insure their success. Accordingly, concerns of the younger students regarding help resources stem from a personal aversion while those of the older students relate more to the competency of the provider given that use of such services are productive.

Data examined by class standing revealed significant differences between preclinical and clinical level students on attitudes toward psychological help, but not on reasons for not using help resources.

The findings associated with attitudes are consistent with those found by Kligfeld and Hoffman (1970). Positive attitudes on the part of students in the latter stages of undergraduate medical training may be closely related to the developmental stages discussed above and may therefore actually "represent" a difference between young adults and maturing adults rather than levels of study. It is also possible that clinical level students in becoming less preoccupied with the academic stresses of the preclinical years, become more willing and able to tolerate self-examination.

The relationships found to exist between students' demographic characteristics and their help-seeking attitudes, preferences and behavior are associated in: Black students preferring and using more formal sources of help; female, non-traditional and clinical students having positive attitudes toward psychological help; Black and non-traditional aged students' reasons for not using help resources being tied to their assessment of the providers, while the reasons for traditional aged student are linked to their personal aversion for services; and those for Hispanic students associated with having no concern or crisis to be addressed. These differences pose the need for an array of strategies which maximize the influence of membership in any of the aforementioned groups to encourage use of services for addressing

non-academic concerns.

Problems Experienced and Help Sources Used

Students reporting greater problem severity in a concern area seem to use more help sources, even thought the sources are primarily informal in nature. for a medical school where the percent of Black and Hispanic medical student enrollment is comparatively low, students used a greater number of formal support resources.

These findings suggest that students in distress do seek help. Although interpersonal concerns occurred most frequently, the relationship between severity and help sources used was strongest for the physical and familial categories. It is possible, because interpersonal problems can encompass so many different types of relationships, that students find it difficult to determine appropriate help sources for interpersonal concerns resulting on the relationships between severity and sources used being weak.

The strongest relationship found is between the physical category and the corresponding informal sources. A physical concern seems to get the attention of medical students more than any other and they are most willing to let those in their network know what is happening for them. Similarly, for familial concerns the primary sources of help are informal. It seems logical that this relationship would exist and that family resources would be the main source of help. As Gourash (1978) observed, those who solicit help tend to turn to family and friends, and to contact professional services as a last resort. Added to this is the consistent endorsement of self as a help resource. Solving one's own problems is echoed throughout responses in this study, suggesting a need for empowering students to help themselves (Cimbolic, Thompson and Waid, 1981).

For the emotional concerns category the findings were reversed. It seems that

students who experience emotional problems tend to seek professional support to address those concerns. Emotional problems may be more threatening to an individual's regular functioning and as a result professional help becomes essential. Additionally, the stigma which may be associated with this category of problem may make it less risky to seek assistance outside of network sources rather than among them and have to fact the potential of being labeled by significant others.

That students, at the college with the lowest percent of Black and Hispanic students enrolled, reported using more formal help sources for emotional concerns may be associated with a few factors. The college may offer formal help resources which the students find highly accessible because of who the providers are and/or because of how the services are organized (e.g., services in close proximity; inexpensive, etc.). As already discussed the nature of the problem may make it important to the student that formal sources be used to minimize the knowledge of network (informal) sources. The limited number of same ethnicity peers in the medical school environment may reduce the potential for using informal sources.

Problem severity and help sources used are positively related with informal sources being the primary choice for Black and Hispanic medical students. Students could benefit from programs which empower them and their associated network sources to address non-academic concerns.

Academic Difficulty

Students reporting greater versus less problem severity do not seem to differ with regard to academic difficulty. Those students who experience higher levels of academic risk do use more formal than informal help sources in addressing interpersonal problems, but don't differ in their preferences for help resources.

The belief that students experiencing greater problem severity would also be at risk of academic difficulty was not supported by the findings. This suggests students may employ effective coping strategies for managing their concerns, such that their use of help sources may allow them to control the impact of non-academic concerns on their academic performance.

The finding that associates higher levels of academic risk with use of formal help sources raises another question: If students at academic risk are using formal help sources, are these resources appropriate, and should it be expected that non-academic services impact academic issues? Certainly a student at academic risk could benefit from the support afforded by formal sources of help, but at the point that academic difficulty becomes an issue would using time for academic support services be more advantageous in insuring retention.

There is some evidence that addressing both the affective and cognitive domains is necessary in order to have optimal academic outcomes for medical students (Geertsma, 1977). A single domain approach from either side seems ineffective at the point the student has attracted the attention of a performance evaluation committee. The student must perform academically; removing the non-academic dissonance will allow the student to better focus on academic issues but will not insure closing the content gap created by the non-academic distraction.

Levels of academic risk did not differentiate preferences for potential help sources among the students. Preferences for help sources seems to be based on more stable characteristics rather than on situational factors such as academic risk.

Preferences and problem severity as associated with non-academic concern do not seem to be differentiated by academic difficulty. The greater use of formal help sources by

students experiencing greater academic difficulty suggest a desire for assistance on the part of students but may require a more strategic approach in the provision of services which will have an optimal effect for students at academic risk.

Summary

The findings of this exploratory study have highlighted some relationships between help seeking attitudes, preferences, and behavior, and student characteristics, problems experienced and academic difficulty. A complex of factors related to who seeks which services to address what concerns have been raised in drawing conclusions from the finding. Possibly more questions have been raised in attempting to answer the ones posed for this study, but this study has contributed to a better understanding of Black and Hispanic medical students.

Application of the information from this study can be useful in structuring non-academic support services for the retention of Black and Hispanic medical students.

Limitations

The primary limitations of this study are associated with its generalizability and statistical power. The population of interest is very specific and as a result is very restricted.

The data is not drawn from a truly random sample, but rather from a convenience sample based on those for whom addresses were obtained, and from that group those who then elected to participate in the study by returning the questionnaire. It became evident that timing in mailing surveys also became a factor in structuring the sample. After the period allowed for in the follow-up contact has past, and data analysis had begun, some students contacted the researcher or returned the survey indicating they had been on break and wanted

to participate.

The fact that respondents self-select and provide information through self report in a design of this type may complicate the bias in the study. Individuals who respond to questionnaires are likely to be different in some important ways from those who do not. It is difficult to determine the missing factors under the circumstances. The ex post facto nature of the study forces the respondent to depend on memory and to accurately report information which is used to a significant degree in the study (i.e., academic difficulty measures).

Care should be taken in attempting to generalize the findings from this study to other medical schools and to other populations of Black and Hispanic students. If the population distribution of an institution is found to be comparable, and the general acadmic and service environment is assessed to be similar to that of the schools included in this study, then replication of this study would certainly help in determining applicability beyond this very select sample.

Implications for Future Research

This exploratory, descriptive study has focused on a limited range of variables which seemed logically associated with the help-seeking attitudes, preferences and behaviors of Black and Hispanic medical students and a number of additional questions have been raised and need to be addressed in future research.

Firstly, some of the measures used in this study have not been uniformly applied to medical students in general. A comparable study for all medical students, using similar characteristic variables would certainly be beneficial in understanding differential help-seeking patterns and in determining the applicability of past research to the general medical school

populations.

The findings showed interpersonal concerns to be the most significant concern for both Black and Hispanic students. Knowledge of the interpersonal concerns would aid in developing programmatic responses to address those concern. Specifically, it needs to be clear with whom interpersonal conflicts arise and where those categories are consistent across the two groups. It is probable, based on comments from respondents, that many of their interpersonal conflicts are with faculty and staff of the medical school.

Further exploration of the differences between the two ethnic/racial groups regarding how they approach problem solving for the specified concern areas would also aid in responding to student needs more appropriately. It appears that Hispanic students, although they may experience comparable concern, may be minimizing the impact of those concerns more than do Black students. This may, be associated with greater disenfranchisement from the medical education system. If students believe they are not truly an accepted part of the system they may respond by making efforts to draw as little attention to themselves as possible; sharing concerns in the educational setting would therefore be taboo and keep the emphasis on use of informal supports. Clarifying the approach to problem solving used may aid in creating a more comfortable environment for Black and Hispanic students.

It appears that informal source of help are useful to students in addressing academic problems. The nature of that relationship needs to be explored. Additonal research on the effects of cognitive and affective strategies in remediating academic difficulties associated with non-academic concerns is essential.

Information more closely associated with individual functioning and traits might help

to further explicate help-seeking behaviors of medical students. Administration of a personality measure (e.g., Meyers-Briggs Type Indicator) would provide additional and useful information about the person's approach to problem solving in general, and would aid in determining the specific factors associated with navigating school and life simultaneously.

APPENDIX

HELP-SEEKING ATTITUDES, PREFERENCES, AND BEHAVIORS OF BLACK AND HISPANIC MEDICAL STUDENTS

A Study by:

Denise Maybank Shepard, M.A.
Michigan State University

PART I

Below are a number of statements pertaining to psychology and mental health issues. Read each statement carefully and indicate your agreement (1), probable agreement (2), probable disagreement (3), or disagreement (4). Please express your frank opinion in rating the statements. There are no "wrong" answers, and the only right ones are whatever you honestly feel or believe. It is important you answer every item.

	Agree			Disagree
1. A person with a strong character can get over mental conflicts by himself, and would have little need of a psychiatrist.	1	2	3	4
2. There are times when I have felt completely lost and would have welcomed professional advice for a personal or emotional problem.	1	2	3	4
3. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	1	2	3	4
4. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.	1	2	3	4
5. I would rather live with certain mental conflicts than go through the ordeal of getting psychiatric treatment.	1	2	3	4
6. Emotional difficulties, like many things, tend to work out by themselves.	1	2	3	4
7. There are certain problems which should not be discussed outside of one's immediate family.	1	2	3	4
8. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	1	2	3	4
9. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns.	1	2	3	4
10. I would rather be advised by close friends than by a psychologist, even for an emotional problem.	1	2	3	4
11. A person with an emotional problem is not likely to solve it alone; he is likely to solve it with professional help.	1	2	3	4
12. I resent a person -- professionally trained or not -- who wants to know about my personal difficulties.	1	2	3	4
13. I would want to get psychiatric attention if I was worried or upset for a long period of time.	1	2	3	4
14. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	1	2	3	4
15. There are experiences in my life I would not discuss with any one.	1	2	3	4
16. It is probably best to know everything about oneself.	1	2	3	4
17. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	1	2	3	4

18. There is something admirable in the attitude of a person who is willing to cope with his conflicts and fears without resorting to professional help.	1	2	3	4
19. At some future time I might want to have psychological counseling.	1	2	3	4
20. A person should work out his own problems; getting psychological counseling would be a last resort.	1	2	3	4

PART II

Please rank order (number 1 through 14) the following list of potential sources of help you could approach for assistance with a personal concern (e.g., depression, feelings of inadequacy, relationship conflict). Indicate your first preference with number one (1) and indicate the source you would least likely approach with number 14.

___ Psychiatrist

___ Psychologist (off campus)

___ Counseling Center professional of same ethnicity

___ Any Counseling Center professional

___ Student Affairs Officer/Advisor

___ Faculty member of same ethnicity

___ Other faculty member

___ Self

___ Non-student friend

___ Student of same ethnicity

___ Other student

___ Family member

___ Clergy (Minister)

___ Physician

PART III

For each of the problem types presented below, indicate the extent to which you have experienced and/or been affected by that type of problem since you have been in medical school. Please use the following scale:

0 = not a problem not affected **1 = slight problem slightly affected** **2 = some problem sometimes affected** **3 = substantial problem very affected** **4 = crucial problem extremely affected**

Physical [e.g., personal injuries, accidents, substance abuse]	0	1	2	3	4
Familial [e.g., relationships with, or concerns regarding parents siblings, spouse, and/or children]	0	1	2	3	4
Interpersonal [e.g., relationships with, or concerns regarding friends and other students, concerns about male-female relationships, conflicts with faculty, cultural conflicts, responding to racism/sexism]	0	1	2	3	4
Emotional/Psychological [e.g., mental health concerns, low self-esteem, anxiety, loneliness/isolation, suicidal thoughts or feelings, conflicts over values, morals or beliefs, depression]	0	1	2	3	4

For each of the problem types presented below, indicate the source(s) of help, if any, you sought to address each problem. If more than one source was used, please enter all applicable numbers separated by commas (e.g., 1, 4, 13).

0 = no help sought
1 = self
2 = family member
3 = non-student friend
4 = student of same ethnicity
5 = other student
6 = clergy (minister)
7 = student affairs officer/advisor
8 = faculty member of same ethnicity
9 = other faculty member
10 = physician
11 = Counseling Center professional of same ethnicity
12 = any Counseling Center professional
13 = psychologist (off campus)
14 = psychiatrist
15 = other (specify source)

Physical _____

Familial _____

Interpersonal _____

Emotional/Psychological _____

PART IV

The following statements provide possible explanations for why medical students may not use services and individuals available within the school environment to assist them with personal concerns. Please indicate the extent to which you agree with each statement.

	Agree			Disagree
Lack of time to seek appropriate services, in the college environment, to address concerns	1	2	3	4
Lack of time to participate in services appropriate for particular concern	1	2	3	4
Low priority of personal concerns when compared to other demands of medical school	1	2	3	4
Fear of peers finding out	1	2	3	4
Fear of instructors/administrators finding out	1	2	3	4
Lack of awareness regarding services available	1	2	3	4
Perceived uselessness of college/university support services in addressing personal concerns	1	2	3	4
Lack of individuals available to help	1	2	3	4
Perceived lack of competent service providers in college environment	1	2	3	4
Lack of ethnic/racial minority helpers	1	2	3	4
Perceived lack of competent ethnic/racial minority service providers	1	2	3	4
Personal mistrust of service providers	1	2	3	4
Mistrust of service providers based on information from others	1	2	3	4
Preference for solving one's own problems	1	2	3	4
Preference for seeking professional assistance outside of the college environment	1	2	3	4
Preference for seeking assistance from family, friends, or other personal helpers	1	2	3	4
No significant personal concerns, crises, or bothersome events occur	1	2	3	4

Please indicate any additional reasons why you might not use nonacademic support services while in medical school:

PART V

1. Have you been dismissed or recessed from your studies at any point since entering medical school?
[ ] Yes [ ] No

2. Have you voluntarily taken a leave from your studies at any point since entering medical school?
[ ] Yes [ ] No

If yes, please indicate the reason(s) for your leave -- more than one reason may be indicated by designating the primary reason #1 followed by numbering any other applicable reasons 2, 3, etc.:

Personal health	[ ]	Academic difficulty	[ ]
Childbearing/childrearing	[ ]	Financial difficulty	[ ]
Research	[ ]	Personal difficulty	[ ]
Special training/education program	[ ]	Family difficulty	[ ]

Other, specify: _____

3. For the terms/semesters you have completed please indicate **the number of courses in each category** below:

Conditional Pass, Marginal Pass, or Remediated to Pass	____
Repeated	____
Not Passed	____
Remaining incomplete	____
Passed	____
Total Courses Attempted	____

4. Have you at any point since entering medical school been required to appear before a committee (e.g., Committee on Student Performance, Committee on Student Evaluation) for the purpose of having your academic performance discussed or evaluated?
[ ] Yes [ ] No

Please complete the following information as it pertains to you:

Sex: [ ] Female [ ] Male

College: [ ] MSU-CHM [ ] MSU-COM
[ ] U of M [ ] Wayne State

Date of Birth (mo/yr): _____

Class Standing: [ ] 1st yr [ ] 2nd yr [ ] 3rd yr [ ] 4th yr

Race/Ethnicity: _____

Did you at any point go on a decelerated (5 year) program?
[ ] yes [ ] no

Marital Status: _____

Your age when you entered medical school: _____

Ages of your children: _____

Undergraduate institution: _____

_____

Optional

Identify those non-academic and non-financial services which could be useful to you as you progress through your medical training:

Identify two (2) primary things which make medical school stressful for you:

LIST OF REFERENCES

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