Actual Knowledge, Perceived Knowledge and Interest in Selected Health Areas of Southeastern Louisiana University Freshmen, 1985.

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Actual knowledge, perceived knowledge and interest in selected health areas of Southeastern Louisiana University freshmen, 1985

Harris, Peggy Ann Wax, Ed.D.
The Louisiana State University and Agricultural and Mechanical Col., 1988

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ACTUAL KNOWLEDGE, PERCEIVED KNOWLEDGE
AND INTEREST IN SELECTED HEALTH AREAS
OF SOUTHEASTERN LOUISIANA UNIVERSITY FRESHMEN, 1985

A Dissertation

Submitted to the Graduate Faculty of
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Education

in

The School of Vocational Education

by

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M.N., University of Mississippi, 1978
May, 1988
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ABSTRACT

The purpose of the study was to evaluate the health knowledge of entering college freshmen for the purpose of adapting health education at the college and secondary level.

The population for the study consisted of members of the freshmen class at Southeastern Louisiana University in the fall of 1985. A thirty-five percent sample was achieved by administering the research questionnaire in a group setting.

The questionnaire was built around determining actual and perceived knowledge and interest in acquiring more knowledge in six areas of health.

Null hypotheses of relationships among the three knowledge dimensions were tested by the Pearson Product-Moment Correlation procedure. Additional null hypotheses of differences in these same knowledge dimensions were tested by demographic and educational variables using analysis of variance.

Respondents had some knowledge of health as evidenced by knowledge test scores--most knowledge of personal health, least knowledge of chronic diseases.

Interest in acquiring more knowledge of all health areas was favorable. Greatest interest was shown in chronic diseases and mental health.
Actual and perceived knowledge were positively and significantly correlated. Where actual knowledge testing is not feasible, assessing perceived knowledge could be a useful substitute when planning educational programs.

Interest in acquiring additional health knowledge was positively and significantly correlated with both actual and perceived knowledge. Students who have or perceive themselves as having greater health knowledge are also likely to be more interested in learning about health.

Differences in health knowledge of students were found when assessed by certain demographic and educational variables. Females were more knowledgeable than males, as were older students compared to younger. Whites were least interested in acquiring more knowledge, blacks the most. Health educators need to consider these differences in designing programs.

Health education content in courses in high school did not make any difference in students' health knowledge. Secondary and college level health programs should be meaningful, complementary and strengthening. Teachers and administrators should be committed to meeting health education needs and problems of young people.
CHAPTER I
INTRODUCTION

The American educational enterprise has expanded in the last few decades and colleges and universities have maintained a steady enrollment. Students come to colleges and universities from a wide variety of socioeconomic backgrounds and with varying abilities and preparation (Chervin, 1986). Their knowledge and understanding of personal and public health is varied, and they reflect a variety of personal health problems. In some instances, students seek help for some of these health problems. In other cases, students neither seek help nor have adequate knowledge (Chervin, 1986).

Health knowledge is needed in order to prevent diseases and disabilities and also to promote health and general well-being.

The health of students in higher education has been a concern of educational personnel and public authorities for years. An example of this historical concern is the goals that emerged from the President's Commission on Higher Education of 1949. General education, the Commission stated, should provide the kinds of learning experiences that will enable the student to attain certain
basic outcomes including the ability to maintain and improve his own health and to cooperate actively and intelligently in solving community health problems (Moss, 1961). Thus, upon each college and university, was placed the responsibility for the health and health education of its students, and the larger community.

Historically, colleges have addressed the health problems of students with the creation of health services. The 1948 Report of the Third National Conference on Health in Colleges suggested that the aims of colleges regarding the health of students were to facilitate the practical application of health knowledge to daily living in the medical health center, the classroom and the campus; to assist students to assume responsibility for their own health; and to provide health education for students (Moss, 1961).

The National Education Association primarily noted that colleges have three responsibilities in the health area. These are to safeguard the health of students through appropriate health services; provide health instruction for all students; and organize and conduct the college health program in proper relationship to the total community health program (Moss, 1961).

Authors from the 1960s to the 1980s discussed the health knowledge of high school and college students and
the effectiveness of health instruction provided to them (Shaw, 1969; Baldi, 1982; Weston, 1982; Sciacca, 1984). These studies indicate the need for knowledge in the areas of personal health, nutrition and stress reduction, and recommend that these health education needs be met in high school and college settings.

Entering college freshmen have a variety of knowledge(s), skills and attitudes. There is not a great deal of published information on these individuals regarding their self-perceived and actual health knowledge, or their interest in acquiring more knowledge. An assessment of these areas of health knowledge could be useful in developing health education programs at the college level that accurately address the needs of this sizeable population.

Statement of the Problem

The actual health knowledge, perceived health knowledge and interest in acquiring health knowledge in selected health areas are the major dimensions of the problem. Relationships between these dimensions and the variables of sex, race, age, residence, average high school grade and health education experiences are to be examined. The population to be studied is incoming freshmen students at Southeastern Louisiana University in 1985.
Purpose of the Study

The purpose of the study was to determine the perceived health knowledge, actual health knowledge and interest in acquiring health knowledge of college freshmen at Southeastern Louisiana University and to relate these to demographic and educational variables.

Objectives of the Study

1. Determine the actual health knowledge, perceived health knowledge and interest in acquiring health knowledge in selected health-related areas of college freshmen at Southeastern Louisiana University.

2. Determine the relationship among actual health knowledge, perceived health knowledge and interest in acquiring health knowledge in selected health-related areas.

3. Determine the differences in actual health knowledge, perceived health knowledge and interest in acquiring health knowledge in selected health-related areas and where there are differences, to determine where these differences exist.

Limitations of the Study

This study has the following limitations:

1. It is limited to the perceived health knowledge, actual health knowledge, and level of interest in acquiring health knowledge about various health-related areas by selected college freshmen.
2. It is limited to some students admitted to Southeastern Louisiana University in 1985.

3. Conclusions are applicable only to the population studied.

4. Because the data are self-reported, there may be some error in measurement.
CHAPTER II
REVIEW OF THE LITERATURE

The literature was reviewed to identify studies in the area of health knowledge of college freshmen. Some information was found on health programs for and the health concerns of college students. However, little was found in the areas of health knowledge upon which this study was focused, namely self-perceived knowledge, actual knowledge and interest in acquiring more knowledge.

This review also assisted in the development of the research instrument. Health problems and concerns of college students cited were included as items in the various health-related areas.

Health

History of Health

Through the years, health has taken on different meanings. Throughout history, there is evidence to indicate that health was one of the fundamental concerns of mankind (Means, 1962). Health in ancient societies, from approximately 3100 B.C. to 400 A.D., was a concern. The Egyptians, Hebrews, Greeks, and Romans stressed physical well-being and hygiene, and this has been documented in archeological findings and other records (Means, 1962). Philosophers such as Socrates (469-399 B.C.) and Aristotle
(384-322 B.C.) were advocates of the same essential elements of health that are recognized today (Means, 1962). Hippocrates (460-355 B.C.) is considered the father of medicine.

Health in the Middle Ages was not emphasized. The moral and physical collapse of the Roman Empire and the entrance into the Dark Ages from 400 A.D. to 900 A.D. delayed man's quest for knowledge. Emphasis was on strict discipline and the spiritual aspects of life. Epidemics caused millions of deaths (Mackenzie, 1979; Means, 1962).

During the Renaissance from 1300 A.D. to 1700 A.D., there was an increased interest in philosophy and health. The humanists became concerned with health. The invention of the printing press in 1438 allowed the printing of health materials. Emphasis was placed on physical and mental well-being (Means, 1962).

Health and health education in America began with the first inhabitants. Archeological records indicate that Indians showed concern for health. The life of the early settlers in the 1600s and 1700s was marked by hardship, starvation and disease. There was evidence of concern for health, and regulations and laws were passed in this colonial period regarding such measures as quarantine and sanitation (Means, 1962; Sobel, 1979).

In the 1800s, physical well-being and the importance of educating for health gained prominence. By the late
1800s, preventative programs and the notion that health was more than just the absence of disease began to be emphasized (Means, 1962).

Health Defined

Historically, the term health is derived from the Anglo-Saxon word "haelth," meaning the condition of being safe and sound or whole. Health is a relative condition or state and has various meanings and interpretations.

The most widely accepted definition of health is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 1948, 29). This definition is important because fifty-four nations reached international agreement on it at the First World Health Assembly in 1948.

Health has also been defined as optimum personal fitness for full and creative living (Kilander, 1965), including the interrelatedness of physical, mental and social well-being (Fodor, 1981).

Hoyman (1980), Osmon (1979) and Ardell (1978), among others, also include the spiritual dimension. The modern point of view places emphasis on the whole individual and his or her interrelatedness with society. Dunn (1957) points this out in his discussion of health in the 1950s. He states that the goal of health calls for not only the cure or alleviation of disease, but also for the prevention of disease. Health is striving to attain the
maximum physical, mental and social efficiency for the individual, the family and the community.

While our society is concerned with curing and treating sickness and preventing disease, it is also concerned with raising levels of wellness. No longer is the individual thought of as being simply "healthy" or "unhealthy." Rather, health varies during any time span from optimum well-being to low-level wellness.

**History of Health Education**

Health education in the public school system in the United States began in the 1700s. Hygiene and sanitation were the main interests (Means, 1962).

In the 1800s, printed health education materials appeared in the schools. Emphasis was on physical education, hygiene, and diet (Means, 1962). Developments in higher education also took place. Harvard College, the earliest institution in higher education in the United States, pioneered an undergraduate course composed of lectures on hygiene which was required of all senior students (Means, 1962). Women's colleges included instruction in physiology and hygiene.

From 1850 to 1900 further organization and progress was made in health education in secondary schools. There was a new awakening of health education. Emphasis was placed on healthful living and disease prevention. The
American Public Health Association was formed in 1872 and placed an emphasis on school health (Means, 1962).

An increase in health education in higher education took place from 1850 to 1900. Amherst College was the first to employ a physician to direct a health program. Health textbooks appeared, and health education was added to the curricula (Means, 1962).

From 1900 into the 1940s, health education adapted to the changes occurring in the United States. The first national conferences on children's health were established, and school health prospered along with public school education (Means, 1962).

Since the 1940s, school health education has expanded and has been bolstered by research. Governmental and professional organizations have increased in number and size. The organization of school health education—materials, content, and methods—has become more prominent in the 1950s and 1960s.

**Evaluation of Health Knowledge**

Assessment and evaluation of health knowledge are used to: (1) evaluate the effectiveness of high school and/or college health courses; (2) evaluate the understanding of college freshmen and to detect any deficiencies in this area which may signal the need for a health course at the high school and/or college level;
(3) assist medical personnel, university administrators and health educators in the development of the needed content for health courses; (4) assist student health services in developing programs of health promotion and disease prevention.

Solleder (1979) has compiled a directory of annotated bibliographies of evaluation instruments in health education. These represent a sample of studies done across the United States about health knowledge and education of college students.

The Construction and Standardization of a Health Knowledge Test for College Students, Robert Blackburn, George Peabody College, 1968.

This test consists of 90 items designed to evaluate the health knowledge of students who have completed a basic college health course.

Fast-Tyson Health Knowledge Test, Charles Fast and Mary Tyson, 1975.

This test consists of 100-item multiple choice questions and was designed for high school students and college freshmen. It measures 10 health content areas.

Formulating and Validating a College Health Knowledge Test, Ken Gunter, University of Alabama, 1972.

This test includes eight health content areas.

Kilanderson-Leach Health Knowledge Test, H. Frederick Kilander and Glenn Leach, New Jersey, 1972.

This test consists of 100 multiple-choice items covering 11 health areas. The 1972 edition is the latest
revision of one of the oldest tests. Norms are based on over 100,000 individual scores.

The Development and Standardization of a Personal Health Knowledge Test, Donovan Phillips, University of Oregon, 1975.

This test consists of 80 multiple-choice items based on 10 health topic areas.


Two concepts, mood modifiers and nutrition, were selected for this study.


This instrument was constructed to appraise the knowledge, attitudes and practices of high school and college students relating to certain environmental health issues.

Constructing a College Health Knowledge Test, Howard Yelverton, University of Alabama, 1969.

This multiple-choice test was based on eight health care areas.

A review of these instruments revealed that health knowledge of college students is a concern of health educators, university administrators, college students, parents and medical personnel.

This review also helped the researcher develop the evaluation instrument used in the study. The format
selected was similar to the one used by Glover (1980) in a statewide study of the health knowledge of 3,529 freshmen students enrolled at 35 institutions of higher education in Texas in the 1978-1979 academic year.

The Kilander-Leach Health Knowledge Test was the instrument used in the Texas study. The 100 multiple-choice questions are divided into 11 health areas: (1) personal health; (2) community health; (3) nutrition; (4) family living; (5) first aid; (6) safety; (7) consumer health; (8) chronic disease; (9) mental health; (10) stimulants and depressants; and (11) communicable disease.

The major conclusion of the Texas study was that modifications were needed in existing health education programs. College freshmen were not strong in any content area. Therefore, health programs in the public elementary and secondary schools as well as institutions of higher education had to be improved.

**Student Health Problems and Concerns**

A variety of health problems exist in the college-age population. This is confirmed in abstracts presented in the *Journal of American College Health*. Some of the current health problems mentioned are alcohol and drug abuse, communicable diseases, stress, hypertension, automobile accidents, eating disorders and smoking. Three of the most prevalent problems mentioned are alcohol consumption, eating disorders and susceptibility to measles.
Alcohol consumption is a particularly significant health problem for college students, however, educational programs are found to be helpful (Fulton, 1984).

Blane and Hewitt reviewed the literature through 1977 on alcohol consumption by youth and found that information on the drinking behavior of college students was extremely limited. The evidence from the few existing studies, though, revealed that individuals in the post high school age group (18-25 years) had higher rates of alcohol consumption than those at other stages of the life cycle. Subsequently, Hanson (1977), Engs (1977), and Wechsler (1979) found a high percentage of college students consuming alcohol--84 percent, 79 percent and 96 percent, respectively.

Barnes and Welte (1983) determined the prevalence of alcohol use for students attending college in New York. They found that males were twice as likely to be heavy drinkers as females. It was concluded that a heavy drinking pattern is established prior to college.

Fulton (1984) revealed in a study done at Brown University that there is value in an environmental awareness program for alcohol. Through educational programs targeted at groups rather than individuals, there has been a statistically significant increase in alcohol-related knowledge.
Gonzalez (1984) reviewed evaluation methods in alcohol education for colleges, and concluded that educational programs are effective and necessary.

Haines (1984) discussed the Ralph Squad at Northern Illinois University. Ralph stands for Responsible Alcohol Leadership for Personal Health. This volunteer group conducts workshops to educate students about the health problems associated with alcohol abuse.

Karp (1984) found that alcohol abuse is a serious health threat on college campuses, and recommended student participation in alcohol education to combat the threat.

Eating disorders constitute another current and significant health problem of college students. Preston (1984) discussed the Eating Disorder Program at the University of Maryland. An interdepartmental approach is used for the treatment of anorexia nervosa and bulimia. Prevention, education and medical follow-up are used.

Weinstein (1985) stated that the incidence of bulimia in the college population is increasing but there is still little understanding of the condition. Bulimia is the recurrent episodes of rapid consumption of large amounts of food followed by purging. A study at Stanford University found that since 1979 there has been an increase in the number of students at the health center with complaints of compulsive vomiting.
Boskind-Lodahl (1978) and Orbach (1980) found that stress and low self-esteem are central to the bulimic syndrome. These factors may become pronounced in college life and this may be the reason for the increase in bulimia in college women. The vast majority of bulimics are female, and the onset is most common at about age eighteen (Connor-Greene, 1987). The emphasis on weight loss in our society and the combined stress of leaving home to attend college makes college women particularly vulnerable to developing bulimia (Connor-Greene, 1987).

Communicable diseases are health problems at any time, but are exacerbated when there is a concentration of individuals in an area, such as in colleges and universities. Dorman (1984) found that a significant number of incoming college students were susceptible to measles and rubella. As a result of this study, Stanford University instituted a requirement in the fall of 1983 requiring proof of immunity against measles and rubella.

Up to 25 percent of college students remain susceptible to measles and rubella (Bart, 1984). Colleges and universities have the opportunity to educate the students, faculty and staff and protect them by establishing and enforcing immunization requirements.

Studies done at the University of California at Los Angeles showed that nine percent of the college population
was susceptible to measles. An outbreak of measles at the Bloomington Campus of Indiana University in 1983 led to a massive immunization program (Bridgewater, 1984). Students are susceptible in the current college-age group because immunizations were not available until the 1960s. When these immunizations became available, a dead virus was used which did not provide permanent immunization. Those born after 1957 and prior to 1968 are susceptible. Those born after 1968 are probably immunized because a live, attenuated virus was used. The older college student is not as susceptible, because those born before the early 1950s probably had the measles due to prevalent outbreaks. A significant number of college students might be susceptible to measles and the best prevention is education and immunization (Bart, 1984).

Health Education Programs for Students

Health education refers to a plan that provides for the arrangement of learning experiences designed to favorably influence health values, practices and knowledge that are conducive to the optimum development of the individual, the family and the community (Fodor, 1981).

Beginning in the 1960s, interest in health education has grown. Shaw (1969) found that the greatest needs in health education of high school students were accidents, chronic diseases and nutrition. He concluded that health
education could be acquired in one of three ways: health courses, integration in other courses, or in informal settings.

There is evidence of new health awareness in this country. Personal efforts are being made to overcome smoking, alcohol and drug abuse, dietary problems, stress and physical inactivity. Governmental efforts at the national, state and local levels promote health awareness and disease prevention. The 1979 United States Surgeon General's report on health promotion and disease prevention states that of the ten leading causes of death in the United States, at least seven could be substantially reduced if persons at risk improved just five habits: improve diet, reduce smoking, increase exercise, reduce alcohol and reduce use of antihypertensive medications (U.S. Government, 1979).

People cannot afford to keep reaching to health professionals to cure or prevent health problems. They have to take this responsibility upon themselves. Baldi and Cyb (1982) feel that health promotion and disease prevention are within the reach of individuals. Kilander (1965) is of the opinion that the major areas of knowledge needed by a person are intellectual ability and physical and emotional health. Knowledge means those items of fact and procedure by which an individual learns what to do in
a given situation and enough about why it is done to make the procedure meaningful. The individual is then able to understand it. Knowledge is used to cover such related terms as facts, information, understanding, awareness, wisdom, reason, meaning, concept and experience (Kilander, 1962).

Health knowledge is understanding and awareness about one's general well-being. But health knowledge does not guarantee correct conduct, nor does it always motivate the desired action.

Shaw (1969) studied the effectiveness of health instruction in a high school, and showed health knowledge needs in areas such as chronic illness, nutrition and stress reduction. Retests after receiving health instruction showed an increase in health knowledge. Also, studies of health instruction in college have demonstrated gains in knowledge. One such study was conducted at the University of Massachusetts before and after formal instruction in 1966 and 1967 (Shaw, 1969). The assumption was that freshmen students would have a low level of health knowledge before health instruction and that this would increase after formal instruction. Significant differences in health knowledge before and after instruction were found, and it was recommended that a general health instruction course would be beneficial to all undergraduates.
A more recent study was done at a California Junior College (Baldi and Cyb, 1982). A test was given to determine the health knowledge needs of college students. Nine health areas were examined: first aid, sex education, drug use/abuse, pregnancy/childbirth, self health care, stress reduction and relaxation, consumer health, aging and weight control. Only two topics, first aid and sex education, had been taught to over half of the students. The conclusions from the study were that there are deficiencies in college students' knowledge of health issues, and that health education courses need to be developed in secondary schools and colleges.

Health education programs have begun at many universities as a result of the lack or low health knowledge of students. At Purdue University (Hyner, 1984) it was found that the general college health course was primarily cognitive in nature and failed to provide a guided assessment. A course was therefore developed called "Healthy Life Styling" which not only gave cognitive information but also identified student health risks. Small group sessions were used to help the students adopt and maintain selected behaviors.

A similar program at Indiana University called Health Analysis Personal Profile for You (H.A.P.P.Y.) evaluated certain health areas such as blood pressure for individual students. The educational program included instruction in
nutrition, relaxation, weight control and smoking cessation (Jessop, 1984).

The American College Health Association in its "Recommended Standards and Practices for a Health Program" (1984) gives the need for health education in four areas: community health, patient care, student orientation and relations, and formal health.

In community health, it recommends that groups and individuals be involved in sessions with health-care workers and discuss issues such as stress management, eating patterns and alcohol and drug use. For patient care, it suggests the need for health exams and personal health services. For student orientation and relations, it recommends that students be oriented to the use of the student health service. It also recommends that schools offer at least a basic course in personal and community health.

Perception and Perception of Knowledge

Natsoulas (1970) calls perception introspective knowledge and states that it is a cognitive matter. It is a brain process that is the cognition or awareness of an object, or an awareness of the situation. A person acquires information about things he sees and reads and he tends to acquire beliefs about it. "Perception is the cognitive end product" (Natsoulas, 1970, 612).
Perception, as a concept, is subjective in nature and is defined as the act of perceiving (Webster, 1985). To perceive is to become aware of through one of the senses. Perception is the knowledge or understanding that one gets by perceiving. Because it is subjective in nature, inquiry about perception may have errors.

The causal theory of perception (Warnock, 1970) states that perceptual experience acquaints us with the effects of physical objects upon our sensory organs, not with the objects themselves. Sensory reaction to physical objects causes us to gain perception. This theory has been confronted by Shaffer. Shaffer (1971) bases his objections upon what he considers to be the falsity of the proposition that physical objects are theoretical entities. He believes that perceptual knowledge is actually derived from involvement with physical objects. They can be experienced rather than just inferred.

Lovejoy (1960) states that physical objects do not constitute a part of our actual perceptual experience. He states that how we react by our senses to physical objects determines our perception.

Fleischaker (1984) describes what has historically become the traditional model for perception theory and the theory of knowledge. The traditional model states that there is a sensation to respond to things in the external world, and the perception within the internal world. The
philosophical aspects relate to the claims of knowledge which result from our comparing the two worlds of philosophy and psychology. The assumptions of the traditional model of perception and knowledge are that there is a durability of the external world and our internal representation of that world.

Gibson's theory of perception suggests that what a person perceives depends on one's biological endowment, and supports the idea that perceiving is information gained through the senses. The theory also says that the information flow around us is continuous and forms an ecological environment for our perception (Gibson, 1966).

Warnock (1970) and Pick (1979) support the idea that perception plays a large part in the acquisition of knowledge. They state that perception is the activity by which we pick up information about environmental objects and events.

Forgus (1966) also supports this idea. He states that perception, learning, and thinking are all a part of the cognitive process. Perception is the process by which one extracts certain information about the environment. Learning is the process by which this information is acquired through experience and then stored.

The link between knowledge and perception has been discussed by Dretske (1981). He states that knowledge is
a form of a justified true belief. This belief is formed due to one's perception of a fact or a situation.

**Interest in Health Knowledge**

Studies by Davis and Martinez (1984), Downey (1984), and Sciacca (1984), reveal some of the health issues that concern and interest students so that they are motivated to learn. Examples of these are weight control, eating disorders, smoking, stress, anxiety and depression, first aid, alcohol tolerance and communicable diseases.

A number of health interest studies have been conducted. Lantagne (1952) was among the first to conduct a significant health interest study. He analyzed the health interests of 10,000 secondary school students from twenty-six high schools in ten states. Significant health interests included sex instruction, tobacco use, mental illness, cancer and accident prevention.

Health interest studies continued into the 1960s. One of the largest was by Byler (1969) in which he surveyed 5,000 high school students. Interests of greatest significance were nutrition, personal health, mental health, accidents, and drugs, smoking and alcohol.

One of the more recent studies is by Gaines (1984). He updated a student self-appraisal inventory of interest in major health areas in a university setting. Gaines' study reflects the idea that it is inevitable that health
interests and consumer health education and needs will change. Therefore, periodic evaluation of health interests of students is needed. Students expressed greatest interest in nutrition, drug use and abuse, food fads and personal health. Little interest was shown in topics relating to health care agencies and consumer action.

Baldi and Cyb (1982) proposed a survey to measure the level of student interest in health education. The topics most often selected were stress reduction, self-health care and first aid. Other areas of interest were nutrition, mental health and sexually transmitted diseases.

Sex Differences in Knowledge and Interest in Health

Females have traditionally been the nurturers in the family, especially with regard to children. However, cultural variations and values must be taken into account (Nadelson, 1983). The working mother has become a maternal model, since over 50 percent of married females are in the work force now.

A growing body of data supports the idea that there are benefits for mothers and children when the mother works. Working mothers foster greater independence in their children and are less over-protective (Nadelson, 1983). But dual career families also bring about some role changes in the home. The mother is still primarily
the caregiver, especially of younger children. However, fathers are assuming more responsibilities in the home such as house and yard work.

Approximately 15 percent of today's school age children live in single-parent homes, primarily due to divorce. Most of these are homes with only a mother. Therefore, in many homes, the mother is the only caregiver.

Traditionally, the primary responsibilities of parenthood have been considered the domain of mothers. They nurture development and provide the care. But role-sharing is becoming more common. Most child development experts organize the various tasks of parenthood into five categories: providing for children's physical needs (including nutrition and medical care), fostering emotional well-being, encouraging optimum intellectual development, teaching moral values and fostering the development of social relations (Golanty and Harris, 1982).

Health statistics indicate that females are more aware of health needs and utilize health facilities more than males (Stoll, 1974). Women of all ages use doctors and dentists more than men do. Males use health services less for preventative purposes. Why is this? As boys, they learn to depend upon their mothers to oversee their
medical care. Women are reared to be aware of home health care and the use of doctors (Stoll, 1974).

Carmichael (1977) concludes that we do live in a sexist childrearing pattern. She believes in a non-sexist childrearing situation in which both parents share in childrearing tasks. Included in this are health areas such as taking the child to the doctor and dentist, caring for the child at home when he is sick and educating the child in normal activities such as nutrition and hygiene.

Gaines (1984), in his study of health interests of college students, found significant differences between males and females. Of the twenty-eight topics, females showed a significantly higher interest in six-crisis intervention, counseling, food fads, self-care, patient rights and food labeling. Little interest was shown by either males or females in the areas of health care agencies, licensing of health care workers and consumer action. There were only eight topics in which 30 percent or more of the students indicated a great interest.

Baldi and Cyb (1982) showed that males and females had similar interests in having a health education class. The number of positive responses doubled when asked if they would take a course focused on their areas of interest.
Glover (1980) in his study of college freshmen found that females scored significantly higher on an actual health knowledge test than did males.

Race Differences in Health Knowledge

Glover (1980) found that white college freshmen scored significantly higher on an actual health knowledge test than did blacks and other races.

Age Differences in Knowledge and Interest in Health

The growing number of older students in colleges and universities will affect the predominant health issues and the ways that health care is structured. Some of the new issues and concerns arising due to an older student population are career and family concerns. Some important skills which will be needed to promote well-being are decision-making, self-esteem and access to resources (Chervin, 1986).

Health services and health education programs need to reflect the changing nature of the student body. Dr. Enarson, former President of The Ohio State University, stated that less than half the college students nationwide are now in the 18-21 year-old age group, yet some health services are still geared to the needs of the late adolescent. Health services for the 1980s need to make provision for students who are older and on campus part-time and/or in the evenings. These older students may
have special problems brought about by the need to balance education, career, and family responsibilities (Enarson, 1981).

Glover (1980) found that older subjects scored significantly higher on an actual health knowledge test than did younger students.

Residence Differences in Health Knowledge

Glover (1980) found that students from more populated areas scored significantly higher on an actual health knowledge test than did those from a rural area.

Average High School Grade and Differences in Health Knowledge

Glover (1980) found that students with the highest grade averages in high school had the highest grades on a health knowledge test.

Previous Health Education Experience and Differences in Health Knowledge

Glover (1980) found that those who had completed a high school health education course scored higher than those who had completed a college health education course.

Shaw (1969) did one of the first studies of before and after analysis of increase in health knowledge. He studied the effectiveness of health instruction in a high school and found an increase in health knowledge. He also did a study at the University of Massachusetts and found a
significant increase in health knowledge of freshmen students after formal instruction.

Summary

Students enter college with a variety of knowledges and skills. Demographic variables such as age, sex, and ethnicity can influence health knowledge in various content areas.

This review of literature revealed that college students are subject to a variety of health problems and have a lack of or low health knowledge. Health knowledge assessment is needed to develop educational programs to promote good health and well-being among college students.

Since health involves the interrelatedness of physical, mental, spiritual and social factors, health instruction should reflect this broad concept (Fodor, 1981).

In 1985, the American College Health Association formed the Task Force on Achieving the Health Objectives for the Nation in Higher Education to address national health objectives for students in colleges and universities. These objectives were set forth in the 1979 Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention. This task force hopes to monitor the activities that meet the health objectives for the nation in higher education (Chervin, 1986).
College students are included in these objectives because one of the five broad goals is to improve the health and health habits of adolescents and young adults.

It is important to reach higher education students. College students are a population in transition. With approximately 12 million students in college, they represent about 5 percent of the population. Many are leaving home for the first time and must make a wide range of decisions about their lifestyles. When student lifestyle practices are open to examination, colleges and universities can have a significant and positive impact on students' decision-making in regard to present and future health status (Chervin, 1986).

Health instruction should reflect a view which considers the many forces that affect one's health and that integrate the various dimensions believed to influence health. In so doing, health instruction becomes realistic and meaningful. It helps the learner to achieve and maintain a high level of wellness.

Health education seems to be a shared responsibility among the home, school and community. It is a process that takes place continuously throughout the individual's life.

Hypotheses

The following null hypotheses were formed based on information gained from the literature review.
H₀1. There is no statistically significant relationship between actual health knowledge and perceived health knowledge for the total sample of SLU Freshmen.

H₀2. There is no statistically significant relationship between actual health knowledge and interest in acquiring health knowledge for the total sample of SLU Freshmen.

H₀3. There is no statistically significant relationship between perceived health knowledge and interest in acquiring health knowledge for the total sample of SLU Freshmen.

H₀4. There is no statistically significant difference in actual health knowledge by sex of SLU Freshmen.

H₀5. There is no statistically significant difference in perceived health knowledge by sex of SLU Freshmen.

H₀6. There is no statistically significant difference in interest in acquiring health knowledge by sex of SLU Freshmen.

H₀7. There is no statistically significant difference in actual health knowledge by race of SLU Freshmen.

H₀8. There is no statistically significant difference in perceived health knowledge by race of SLU Freshmen.

H₀9. There is no statistically significant difference in interest in acquiring health knowledge by race of SLU Freshmen.
$H_010$. There is no statistically significant difference in actual health knowledge by age of SLU Freshmen.

$H_011$. There is no statistically significant difference in perceived health knowledge by age of SLU Freshmen.

$H_012$. There is no statistically significant difference in interest in acquiring health knowledge by age of SLU Freshmen.

$H_013$. There is no statistically significant difference in actual health knowledge by residence of SLU Freshmen.

$H_014$. There is no statistically significant difference in perceived health knowledge by residence of SLU Freshmen.

$H_015$. There is no statistically significant difference in interest in acquiring health knowledge by residence of SLU Freshmen.

$H_016$. There is no statistically significant difference in actual health knowledge by average high school grade of SLU Freshmen.

$H_017$. There is no statistically significant difference in perceived health knowledge by average high school grade of SLU Freshmen.

$H_018$. There is no statistically significant difference in interest in acquiring health knowledge by average high school grade of SLU Freshmen.
$H_0^{19}$. There is no statistically significant difference in actual health knowledge by previous health course of SLU Freshmen.

$H_0^{20}$. There is no statistically significant difference in perceived health knowledge by previous health course of SLU Freshmen.

$H_0^{21}$. There is no statistically significant difference in interest in acquiring health knowledge by previous health course of SLU Freshmen.

$H_0^{22}$. There is no statistically significant difference in actual health knowledge by health taught as part of a course for SLU Freshmen.

$H_0^{23}$. There is no statistically significant difference in perceived health knowledge by health taught as part of a course for SLU Freshmen.

$H_0^{24}$. There is no statistically significant difference in interest in acquiring health knowledge by health taught as part of a course for SLU Freshmen.

$H_0^{25}$. There is no statistically significant difference in actual health knowledge by health taught in specific courses for SLU Freshmen.

$H_0^{26}$. There is no statistically significant difference in perceived health knowledge by health taught in specific courses for SLU Freshmen.
$H_0.27$. There is no statistically significant difference in interest in acquiring health knowledge by health taught in specific courses for SLU Freshmen.
CHAPTER III
METHODOLOGY

Population

The population for this study was 1,700 entering freshmen at Southeastern Louisiana University in the Fall semester of 1985. Each of these attended one of three orientation sessions. All had equal access to each of the three sessions. Students attending the third session (737 students) were included in this study, because this was the largest group. Data collected by the Department of High School Relations and Admissions verify that the characteristics of students attending the three sessions are similar according to demographic and educational variables.

Sample

As is customary, freshmen participate in an orientation program prior to the beginning of classes. For the Fall semester of 1985, this program was offered on three different dates. The researcher did a pilot study with the research instrument (questionnaire) on the second date, and administered it to the group of freshmen who participated in orientation on the last available date. The largest number of entering students (737) attended that session. Of this number, 601 students (82%) returned
useable questionnaires. One hundred and thirty-six questionnaires had incomplete data. The total of 601 returned questionnaires constituted a sample of 35.3 percent of the total population of freshmen entering this university.

**Questionnaire**

To develop the questionnaire, the researcher studied the literature on health knowledge and health problems of college students. The initial questionnaire was distributed to twenty individuals considered experts in the area of health problems and health education of college students. Some of the individuals who gave input were doctors, nurses and health educators. Modifications were made based on their suggestions.

The questionnaire was pretested with twenty-five students attending the second orientation session. Again, modifications were made based on their suggestions. A copy of the final questionnaire can be found in Appendix A.

Section I of the questionnaire asked for personal information on sex, race, age, residence, average high school grade and health courses in high school either as a separate course or combined with other subjects. Students were also asked to rate their current health status on a five-point scale of excellent, very good, fairly good,
somewhat poor or poor, and the sources of their health knowledge on a five-point scale ranging from very much, some, little, very little to none. Some of the sources included in this list were mother, father, doctor, school nurse and television.

Section II of the questionnaire required the students to evaluate their knowledge about six health-related areas, on a five-point scale--very much, much, some, little, very little or none. The areas covered were personal health, nutrition, chronic diseases, communicable diseases, mental health and alcohol/drug use and abuse.

Section III of the questionnaire was concerned with determining students' actual health knowledge in the same health-related areas as in Section II. A thirty-six item test of multiple choice questions was constructed for this purpose. The Kilander-Leach Health Knowledge Test was reviewed, and permission was granted by the author to use the test. The researcher found some of the items obsolete. Therefore, the researcher used a format similar to that instrument but developed a health knowledge test.

To test for reliability, Cronbach's alpha procedure was used (Cronbach, 1951). The computation is the value expected when two random samples of items from the test are correlated. The test for reliability yielded an alpha of .6971.
Section IV of the questionnaire was designed to assess interest of students in learning more about the six health-related areas. A five-point interest scale--very much, much, some, a little, very little or none--was used for this evaluation.

Data Collection

The data collection site was a large auditorium used for the freshmen orientation program. Students were given some school information papers unrelated to this study to complete, as well as the study questionnaire and an explanation of the purpose and scope of the study (Appendix B). They were given approximately 30 minutes to complete the questionnaire.

Treatment of Data for Analysis

The data on the dependent variables were treated for analysis in the following manner:

Perceived health knowledge and interest in acquiring more knowledge. The data on these variables were gathered on a five-point rating scale of knowledge--very much, much, some, little, very little or none. There were 28 items of information for the six health areas, as shown below:
Health Area                  Number of Items
Personal Health             5
Nutrition                   6
Chronic Diseases            4
Communicable Diseases       6
Mental Health               3
Alcohol/Drug Use and Abuse  4

The rating of each item was assigned a numerical value of 5 for very much, 4 for much, 3 for some, 2 for little, and 1 for very little or none. The ratings for all items in a health area were summed and divided by the number of items in that health area. Therefore, the range of values for each item and each area was the same, namely 1-5.

Actual health knowledge. Each area on the test of health knowledge had six questions. Correct response to a question was given a score of 1 and an incorrect response a score of 0. The maximum points for any area was 6 and the total for all health areas was 36.

Data Analysis

The above values for both individual items and areas were used in statistical analysis of the data. Pearson product-moment correlation was used to test the null hypotheses of relationships among actual health knowledge, perceived health knowledge, and interest in acquiring
health knowledge ($H_01$-$H_03$). Analysis of variance was used to test the null hypotheses for differences in actual health knowledge, perceived health knowledge, and interest in acquiring health knowledge by demographic and educational variables ($H_04$-$H_027$).

The probability level chosen to indicate statistical significance was .10.
CHAPTER IV
ANALYSIS OF DATA

This chapter is concerned with the analysis of the responses from the 601 students who responded to the questionnaire. It begins with a presentation of data concerning personal characteristics of the respondents and their sources of health knowledge. Thereafter, the null hypotheses are the focus.

Personal Characteristics (Table 1)

Sex
Fifty-five percent of the respondents were male and 45 percent were female.

Race
The distribution by race was 88 percent white, 10 percent black and 2 percent other races (Hispanic, American Indian, Oriental).

Age
Seventy-three percent were in the age group 16-20 years, 15 percent 21-25 years, and 12 percent greater than 25 years. The mean age was 20.3 years.
Table 1

Personal Characteristics of the Respondents, Southeastern Louisiana University Freshmen.

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>329</td>
<td>54.7</td>
</tr>
<tr>
<td>Female</td>
<td>272</td>
<td>45.3</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>531</td>
<td>88.4</td>
</tr>
<tr>
<td>Black</td>
<td>57</td>
<td>9.5</td>
</tr>
<tr>
<td>Other (Hispanic, Oriental American Indian)</td>
<td>13</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-20 years</td>
<td>441</td>
<td>73.4</td>
</tr>
<tr>
<td>21-25 years</td>
<td>89</td>
<td>14.8</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>71</td>
<td>11.8</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm/open country</td>
<td>93</td>
<td>15.5</td>
</tr>
<tr>
<td>Small community</td>
<td>116</td>
<td>19.3</td>
</tr>
<tr>
<td>Town or city</td>
<td>392</td>
<td>65.2</td>
</tr>
<tr>
<td><strong>Average high school grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A average</td>
<td>36</td>
<td>6.0</td>
</tr>
<tr>
<td>B average</td>
<td>248</td>
<td>41.3</td>
</tr>
<tr>
<td>C average</td>
<td>305</td>
<td>50.7</td>
</tr>
<tr>
<td>D average</td>
<td>12</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Received a health course in high school</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>154</td>
<td>25.6</td>
</tr>
<tr>
<td>No</td>
<td>447</td>
<td>74.4</td>
</tr>
<tr>
<td><strong>Received health taught as part of another course</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>469</td>
<td>78.0</td>
</tr>
<tr>
<td>No</td>
<td>132</td>
<td>22.0</td>
</tr>
<tr>
<td><strong>If health was taught as part of another course, with what course was it?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>42</td>
<td>9.0</td>
</tr>
<tr>
<td>Home Economics</td>
<td>30</td>
<td>6.4</td>
</tr>
<tr>
<td>Physical Education</td>
<td>386</td>
<td>82.3</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>2.3</td>
</tr>
</tbody>
</table>
Residence

The residence of respondents was identified. Sixteen percent stated that they were from an area primarily considered farm or open country. Nineteen percent lived in a small community defined as less than 5,000 in population. Sixty-five percent stated that they lived in a town or city defined as more than 5,000 in population. This classification is used by the university in data collection.

High school graduation grade

Grades at the time of high school graduation were determined. Students indicated their average grade on the questionnaire. Six percent had an "A" average, 41 percent a "B" average, 51 percent a "C" average, and 2 percent a "D" average.

Previous health course

Individuals who had a separate health course in high school were identified. Twenty-six percent reported having had a health course while 74 percent did not. Of the 74 percent who did not have a separate health course, 78 percent had health taught as part of another course.

Of those who had health taught as a part of another course, 82 percent had the experience as a part of Physical Education, nine percent as a part of Biology, seven percent as a part of Home Economics, and two percent
as a part of Developmental Psychology and Health Career courses.

**Self-Rating of Current Health Status by Respondents**

The respondents were asked to rate their current health status (Table 2). None of the respondents indicated poor health. Ten (1.6 percent) rated themselves as being in somewhat poor health, 146 (24.3 percent) fairly good, 290 (48.3 percent) very good, and 155 (25.8 percent) excellent. On the scale of 1 for poor health to 5 for excellent health, the mean was 3.98.

**Sources of Health Knowledge**

The participants were asked to identify the main sources of their health knowledge (Table 3).

Mothers had the highest mean score (4.27 on a scale of 5). Eighty-one percent stated mother served very much or some as a source of health information, while 19 percent said very little, little or none.

Doctors had the next highest mean score (3.87). Sixty-five percent indicated that their doctors served very much or some as a source of information, while 35 percent said little or none.

Other sources of health information and respective mean scores were father (3.79), friends (3.41), school classes (3.38), TV/ films (3.23), books/ pamphlets (3.19),
Table 2  
Self-Rating of Current Health Status by Southeastern Louisiana University Freshmen.

<table>
<thead>
<tr>
<th>Status</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat Poor</td>
<td>10</td>
<td>1.6</td>
</tr>
<tr>
<td>Fairly Good</td>
<td>146</td>
<td>24.3</td>
</tr>
<tr>
<td>Very Good</td>
<td>290</td>
<td>48.3</td>
</tr>
<tr>
<td>Excellent</td>
<td>155</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>601</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Table 3
Rating of Sources of Health Knowledge According to Importance by Southeastern Louisiana University Freshmen.

<table>
<thead>
<tr>
<th>Source</th>
<th>Very much</th>
<th>Some</th>
<th>Little</th>
<th>Very little</th>
<th>None or does not apply</th>
<th>Mean score*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>53</td>
<td>28</td>
<td>13</td>
<td>4</td>
<td>2</td>
<td>4.27</td>
</tr>
<tr>
<td>Doctor</td>
<td>37</td>
<td>28</td>
<td>21</td>
<td>12</td>
<td>2</td>
<td>3.87</td>
</tr>
<tr>
<td>Father</td>
<td>32</td>
<td>33</td>
<td>22</td>
<td>8</td>
<td>5</td>
<td>3.79</td>
</tr>
<tr>
<td>Friends</td>
<td>17</td>
<td>31</td>
<td>32</td>
<td>17</td>
<td>3</td>
<td>3.41</td>
</tr>
</tbody>
</table>

*Mean scores based on ratings of 5 = very much, 4 = some, 3 = little, 2 = very little, 1 = none or does not apply.
grandparents (2.83), aunts/uncles (2.63), sisters (2.54), brothers (2.52), neighbors (2.43), religious groups (2.38), school nurses (2.19), spouses (2.17), doctor's nurse (2.11), youth groups (2.11), and other sources (1.43) (Appendix C).

Health Knowledge and Interest of Students

The health knowledge and interest in acquiring knowledge are shown in Table 4.

Actual Health Knowledge in Selected Health Areas

Each student answered a 36-item test section. There were 6 test items for each health area (personal health, nutrition, chronic diseases, communicable diseases, mental health, and alcohol/drug use and abuse). A mean score was calculated for each item, each health area and for the entire actual knowledge test based on the number correct out of a possible 36 (Appendix D).

The overall mean for the test was 23.24 out of a possible 36.0.

Students had the highest knowledge score in the personal health area with a mean of 4.62 (out of a possible 6). Knowledge of other areas was alcohol/drug use and abuse 4.05, nutrition 3.81, communicable diseases 3.73, mental health 3.64 and chronic diseases 3.22.
Table 4

Actual Knowledge, Perceived Knowledge, and Interest in Acquiring More Knowledge of Health, Southeastern Louisiana University Freshmen.

<table>
<thead>
<tr>
<th>Health Areas</th>
<th>Mean Scores (n=601)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Knowledge*</td>
<td>Perceived Knowledge (max = 5)</td>
<td>Interest in Acquiring More Knowledge (max = 5)</td>
</tr>
<tr>
<td>Personal Health</td>
<td>4.62</td>
<td>3.08</td>
<td>2.85</td>
</tr>
<tr>
<td>Nutrition</td>
<td>3.81</td>
<td>3.22</td>
<td>3.15</td>
</tr>
<tr>
<td>Chronic Diseases</td>
<td>3.22</td>
<td>2.71</td>
<td>3.47</td>
</tr>
<tr>
<td>Communicable Diseases</td>
<td>3.73</td>
<td>2.59</td>
<td>3.14</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3.64</td>
<td>2.92</td>
<td>3.40</td>
</tr>
<tr>
<td>Alcohol/Drug Use and Abuse</td>
<td>4.05</td>
<td>3.52</td>
<td>3.27</td>
</tr>
<tr>
<td>Overall</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

*Maximum points = 6.0 per area; 36.0 for all areas.
Perceived Health Knowledge in Selected Health Areas

Students' perceived knowledge of alcohol/drug use and abuse was the highest (mean = 3.52). Mean knowledge in the other areas were nutrition 3.22, personal health 3.08, mental health 2.92, chronic diseases 2.71, and communicable diseases 2.59.

The breakdown of each area by item is found in Appendix E.

Interest in Acquiring Health Knowledge in Selected Health Areas

Students indicated the most interest in learning about chronic diseases (mean = 3.47). Mean scores of interest in other areas were mental health 3.40, alcohol/drug use and abuse 3.27, nutrition 3.15, communicable diseases 3.14 and personal health 2.85.

The breakdown of each area by item is found in Appendix F.

Tests of Hypotheses

Null Hypothesis 1. There is no statistically significant relationship between actual health knowledge and perceived health knowledge for the total sample of SLU Freshmen.

The scores of actual health knowledge and perceived health knowledge were examined for a relationship using
the Pearson product-moment correlation (Table 5). A statistically significant correlation \( p < .001 \) was observed, and the correlation was in the moderate range \( r = .41 \). Therefore, the hypothesis of no relationship was rejected.

**Null Hypothesis 2.** There is no statistically significant relationship between actual health knowledge and interest in acquiring health knowledge for the total sample of SLU Freshmen.

The scores of actual health knowledge and interest in acquiring health knowledge were examined for a relationship using the Pearson product-moment correlation (Table 5). A statistically significant correlation \( p < .001 \) was observed, and the correlation was in the low to moderate range \( r = .37 \). Therefore, the hypothesis of no relationship was rejected.

**Null Hypothesis 3.** There is no statistically significant relationship between perceived health knowledge and interest in acquiring health knowledge for the total sample of SLU Freshmen.

The scores of perceived health knowledge and interest in acquiring health knowledge were examined for a relationship using the Pearson product-moment correlation (Table 5). A statistically significant correlation \( p < .002 \) was observed, but the correlation was low \( r = .12 \). Therefore, the hypothesis of no relationship was rejected.
Table 5
Correlation of Perceived Knowledge, Actual Knowledge, and Interest in Selected Health Areas for Total Sample, SLU Freshmen.

<table>
<thead>
<tr>
<th>Perceived Knowledge</th>
<th>Actual Knowledge</th>
<th>Perceived Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>to Actual Knowledge</td>
<td>to Interest</td>
<td>to Interest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Sample (N = 601)</th>
<th>$r = .41$</th>
<th>$r = .37$</th>
<th>$r = .12$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p &lt; .001$</td>
<td>$p &lt; .001$</td>
<td>$p &lt; .002$</td>
<td></td>
</tr>
</tbody>
</table>
Having found statistically significant correlations for the total sample, the researcher was interested in seeing if the same relationships existed for the several demographic variables. To do this, the total sample was broken down into groups according to sex, race, age, residence, average high school grade and previous health education experience and correlations determined (Table 6).

For both males and females, the respective correlations between the knowledge dimensions were positive. The only non-significant correlation was in the females between perceived knowledge and interest in acquiring more knowledge.

For both whites and blacks, the respective correlations between the knowledge dimensions were positive, except for that between blacks' perceived knowledge and interest in acquiring more knowledge. For other races (Hispanics, Oriental, American Indian), the only significant relationship was between their actual knowledge and interest in acquiring more knowledge.

For the age groups 16-19 years, 20-25 years, and over 25 years, the respective correlations between the knowledge dimensions were positive. The only statistically non-significant relationship was that between perceived knowledge and interest in acquiring more
Table 6
Correlations of Perceived Health Knowledge, Actual Health Knowledge, and Interest in Selected Health Areas According to Groupings of Sex, Race, Age, Residence, Average High School Grade, and Previous Health Education Experience, SLU Freshmen.

<table>
<thead>
<tr>
<th></th>
<th>Perceived Knowledge to Actual Knowledge</th>
<th>Actual Knowledge to Interest</th>
<th>Perceived Knowledge to Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>( r = .40 ) ( p &lt; .001 )</td>
<td>( r = .33 ) ( p &lt; .001 )</td>
<td>( r = .14 ) ( p = .005 )</td>
</tr>
<tr>
<td>( N = 329 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>( r = .37 ) ( p &lt; .001 )</td>
<td>( r = .34 ) ( p &lt; .001 )</td>
<td>( r = .08 ) ( p = .38 )NS</td>
</tr>
<tr>
<td>( N = 272 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>( r = .44 ) ( p &lt; .001 )</td>
<td>( r = .37 ) ( p &lt; .001 )</td>
<td>( r = .19 ) ( p = .002 )</td>
</tr>
<tr>
<td>( N = 531 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>( r = .38 ) ( p &lt; .001 )</td>
<td>( r = .33 ) ( p = .004 )</td>
<td>( r = .01 ) ( p = .44 )NS</td>
</tr>
<tr>
<td>( N = 57 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other races(a)</td>
<td>( r = .10 ) ( p = .36 )NS</td>
<td>( r = .65 ) ( p = .008 )</td>
<td>( r = -.21 ) ( p = .23 )NS</td>
</tr>
<tr>
<td>( N = 13 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-19 years</td>
<td>( r = .34 ) ( p &lt; .001 )</td>
<td>( r = .39 ) ( p &lt; .001 )</td>
<td>( r = .11 ) ( p = .008 )</td>
</tr>
<tr>
<td>( N = 441 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-25 years</td>
<td>( r = .43 ) ( p &lt; .001 )</td>
<td>( r = .26 ) ( p = .009 )</td>
<td>( r = .02 ) ( p = .41 )NS</td>
</tr>
<tr>
<td>( N = 89 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( N = 71 )</td>
<td>( r = .30 ) ( p = .006 )</td>
<td>( r = .30 ) ( p = .006 )</td>
<td>( r = .01 ) ( p = .45 )NS</td>
</tr>
</tbody>
</table>

(a) Hispanic, Oriental, American Indian
Table 6
(Continued)

<table>
<thead>
<tr>
<th>Perceived Knowledge</th>
<th>Actual Knowledge to Interest</th>
<th>Perceived Knowledge to Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm/Open Country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N = 93)</td>
<td>r = .38</td>
<td>r = .18</td>
</tr>
<tr>
<td></td>
<td>p &lt; .001</td>
<td>p = .04</td>
</tr>
<tr>
<td>Small Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N = 116)</td>
<td>r = .50</td>
<td>r = .08</td>
</tr>
<tr>
<td></td>
<td>p &lt; .001</td>
<td>p = .19NS</td>
</tr>
<tr>
<td>Town or City</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N = 392)</td>
<td>r = .39</td>
<td>r = .11</td>
</tr>
<tr>
<td></td>
<td>p &lt; .001</td>
<td>p = .06</td>
</tr>
</tbody>
</table>

Average High School Grade

| "A" Average         |                              |                                |
| (N = 36)            | r = .20                       | r = .10                        | r = .61 |
|                     | p = .12NS                     | p = .28NS                      | p < .001 |
| "B" Average         |                              |                                |
| (N = 248)           | r = .37                       | r = .07                        | r = .22 |
|                     | p < .001                      | p = .14NS                      | p < .001 |
| "C" Average         |                              |                                |
| (N = 305)           | r = .45                       | r = .06                        | r = .43 |
|                     | p < .001                      | p = .10NS                      | p < .001 |
| "D" Average         |                              |                                |
| (N = 12)            | r = .15                       | r = -.09                       | r = .44 |
|                     | p = .32NS                     | p = .39NS                      | p = .07 |

Previous Health Course

| Yes                 |                              |                                |
| (N = 154)           | r = .35                       | r = .13                        | r = .28 |
|                     | p < .001                      | p = .06                        | p < .001 |
| No                  |                              |                                |
| (N = 447)           | r = .43                       | r = .11                        | r = .41 |
|                     | p < .001                      | p = .01                        | p < .001 |
Table 6
(Continued)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Knowledge to Actual Knowledge</th>
<th>Actual Knowledge to Interest</th>
<th>Perceived Knowledge to Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Taught as Part of a Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>r = .42</td>
<td>r = .12</td>
<td>r = .38</td>
</tr>
<tr>
<td>(N = 469)</td>
<td>p &lt; .001</td>
<td>p = .005</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>No</td>
<td>r = .37</td>
<td>r = .16</td>
<td>r = .32</td>
</tr>
<tr>
<td>(N = 132)</td>
<td>p &lt; .001</td>
<td>p = .05</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>r = .46</td>
<td>r = .31</td>
<td>r = .53</td>
</tr>
<tr>
<td>(N = 43)</td>
<td>p &lt; .001</td>
<td>p = .02</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Home Economics</td>
<td>r = .43</td>
<td>r = .38</td>
<td>r = .33</td>
</tr>
<tr>
<td>(N = 30)</td>
<td>p = .008</td>
<td>p = .06</td>
<td>p = .04</td>
</tr>
<tr>
<td>Physical Education</td>
<td>r = .43</td>
<td>r = .11</td>
<td>r = .39</td>
</tr>
<tr>
<td>(N = 387)</td>
<td>p &lt; .001</td>
<td>p &lt; .01</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Other</td>
<td>r = -.06</td>
<td>r = .23</td>
<td>r = -.22</td>
</tr>
<tr>
<td>(N = 11)</td>
<td>p = .43NS</td>
<td>p = .26NS</td>
<td>p = .25NS</td>
</tr>
</tbody>
</table>
knowledge for the 20-25 years, and over 25 years age groups.

Positive and statistically significant correlations between the knowledge dimensions were also found by place of residence—farm/open country, small community and town/city. Among small community residents, there was no significant relationship between actual knowledge and interest in acquiring more knowledge.

Regardless of grade in high school, perceived knowledge and interest in acquiring more knowledge were positively related, and this relationship was statistically significant. None of the correlations between actual knowledge and interest in acquiring more knowledge were statistically significant. The correlations between perceived knowledge and actual knowledge were positive and statistically significant only for those with "B" and "C" averages.

Whether or not students had a specific health course or learned about health as part of another course, the relationships between the three knowledge dimensions were positive and statistically significant.

**Null Hypothesis 4.** There is no statistically significant difference in actual health knowledge by sex of SLU Freshmen.

When differences in actual knowledge scores were examined according to the sex of the respondents, it was
found that the mean score for males was 22.50 compared to 24.11 for females (Table 7).

The difference in actual knowledge score by sex of respondents was statistically significant as shown by $F = 3.95$, $p < .001$. Females had a higher score than males. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to determine where the difference by sex actually existed (Table 8). There were statistically significant differences in all areas except alcohol/drug use. Females scored significantly higher than males in the other health areas.

**Null Hypothesis 5.** There is no statistically significant difference in perceived health knowledge by sex of SLU Freshmen.

When perceived knowledge was compared by sex of the respondents, it was found that males had a mean score of 2.85, and females 3.18 (Table 7).

The difference in perceived knowledge score by sex of respondents was statistically significant as shown by $F = 3.54$, $p = .003$. Females had a higher score than males. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to see in which areas the sex differences actually existed (Table 9). There were statistically significant differences in all six areas (personal health, nutrition,
Table 7
A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Sex of SLU Freshmen.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>329</td>
<td>22.50</td>
<td>2.85</td>
<td>3.02</td>
</tr>
<tr>
<td>Female</td>
<td>272</td>
<td>24.11</td>
<td>3.18</td>
<td>3.37</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS       | 5.28 | 1.49 | .42
F, 1 & 599 df | 3.95 | 3.54 | .75
p        | < .001 | .003 | .58NS
Table 8

Mean Scores of Actual Knowledge of Health Areas by Sex, SLU Freshmen.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N=601</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>329</td>
<td>4.46</td>
<td>3.76</td>
<td>3.10</td>
<td>3.67</td>
<td>3.46</td>
<td>4.05</td>
</tr>
<tr>
<td>Female</td>
<td>272</td>
<td>4.91</td>
<td>3.98</td>
<td>3.39</td>
<td>3.92</td>
<td>3.90</td>
<td>3.98</td>
</tr>
<tr>
<td>MS</td>
<td>30.29</td>
<td>6.73</td>
<td>12.27</td>
<td>9.66</td>
<td>28.66</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>F, 1 &amp; 599 df</td>
<td>25.62</td>
<td>3.45</td>
<td>7.04</td>
<td>6.81</td>
<td>11.55</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>.001</td>
<td>.064</td>
<td>.008</td>
<td>.009</td>
<td>.001</td>
<td>.559NS</td>
<td></td>
</tr>
</tbody>
</table>

*Mean scores based on number correct out of a possible 6.
Table 9
Mean Scores of Perceived Knowledge of Health Areas by Sex, SLU Freshmen.

<table>
<thead>
<tr>
<th></th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=601</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>329</td>
<td>2.87</td>
<td>3.11</td>
<td>2.53</td>
<td>2.47</td>
<td>2.81</td>
</tr>
<tr>
<td>Female</td>
<td>272</td>
<td>3.34</td>
<td>3.33</td>
<td>2.92</td>
<td>2.74</td>
<td>3.06</td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>32.63</td>
<td>7.11</td>
<td>22.71</td>
<td>11.26</td>
<td>9.52</td>
<td>20.64</td>
</tr>
<tr>
<td>F, 1 &amp; 599 df</td>
<td>55.96</td>
<td>10.96</td>
<td>29.18</td>
<td>13.73</td>
<td>8.80</td>
<td>22.46</td>
</tr>
<tr>
<td>p</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.003</td>
<td>.001</td>
</tr>
</tbody>
</table>

*Mean scores based on a scale of 1 to 5.
chronic diseases, communicable diseases, mental health and alcohol/drug use). Females were significantly higher than males in all areas in the perception section.

**Null Hypothesis 6.** There is no statistically significant difference in interest in acquiring health knowledge by sex of SLU Freshmen.

When interest in acquiring health knowledge was compared by sex of respondents, it was found that males had a mean score of 3.02 and females 3.37 (Table 7).

The difference in interest in acquiring health knowledge by sex of the respondents was not statistically significant as shown by $F = .75, p = .58$. Therefore, the hypothesis of no difference was not rejected.

**Null Hypothesis 7.** There is no statistically significant difference in actual health knowledge by race of SLU Freshmen.

The mean score for actual knowledge for whites was 23.58 compared to 20.45 for black and 21.76 for other races (Table 10). The difference in actual knowledge score by race was not statistically significant as shown by $F = 1.35, p = .19$. Therefore, the hypothesis of no difference was not rejected.

**Null Hypothesis 8.** There is no statistically significant difference in perceived knowledge by race of SLU Freshmen.
Table 10
A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Race of SLU Freshmen.

<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>531</td>
<td>23.58</td>
<td>2.99</td>
<td>3.11</td>
</tr>
<tr>
<td>Black</td>
<td>57</td>
<td>20.45</td>
<td>3.05</td>
<td>3.77</td>
</tr>
<tr>
<td>Other(a)</td>
<td>13</td>
<td>21.76</td>
<td>3.20</td>
<td>3.42</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS     1.81  .69  .92
F, 2 & 598 df 1.35  1.65  1.63
p   .19NS  .08  .09

(a) Hispanics, Oriental, American Indian
When perceived scores were compared by race, it was found that white students had a mean score of 2.99 compared to 3.05 for blacks and 3.20 for other races (Table 10).

The difference in perceived knowledge score by race was statistically significant as shown by $F = 1.65, p = .08$. Therefore, the hypothesis of no difference was rejected. Races other than black or white felt they had more health knowledge than either white or black students.

An analysis of variance was performed for each health area to determine where the difference in perceived knowledge by race actually existed (Table 11). There were no differences for the areas of personal health, nutrition, chronic diseases, communicable diseases or alcohol/drug use. The difference was in the area of mental health. Other races scored higher than whites and blacks in this area.

Null Hypothesis 9. There is no statistically significant difference in interest in acquiring health knowledge by race of SLU Freshmen.

When interest in acquiring health knowledge was compared by race, it was found that white students had a mean score of 3.11, black students 3.77, and other races 3.42 (Table 10). Differences in interest in acquiring health knowledge by race were statistically significant as shown by $F = 1.63, p = .09$. Black students and students
Table 11
Mean Scores of Perceived Knowledge of Health Areas by Race, SLU Freshmen.

<table>
<thead>
<tr>
<th>Race</th>
<th>N=601</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>531</td>
<td>3.08</td>
<td>3.21</td>
<td>2.71</td>
<td>2.57</td>
<td>2.89</td>
<td>3.50</td>
</tr>
<tr>
<td>Black</td>
<td>57</td>
<td>3.06</td>
<td>3.19</td>
<td>2.64</td>
<td>2.83</td>
<td>3.07</td>
<td>3.56</td>
</tr>
<tr>
<td>Other races (a)</td>
<td>13</td>
<td>3.30</td>
<td>3.26</td>
<td>2.86</td>
<td>2.66</td>
<td>3.48</td>
<td>3.52</td>
</tr>
</tbody>
</table>

MS      .33  .03  .28  1.81  2.87  1.24
F, 2 & 598 df .52  .04  .34  2.16  2.63  1.09
p       .593NS  .961NS  .713NS  .115NS  .072  .336NS

*Mean scores based on a scale of 1 to 5.
(a) Hispanic, Oriental, American Indian
of other races had a greater interest than white students in acquiring health knowledge. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to determine where the difference in interest in acquiring health knowledge by race actually existed (Table 12). There were statistically significant differences in all areas. Blacks had higher means than whites and other races in all areas.

Null Hypothesis 10. There is no statistically significant difference in actual health knowledge by age of SLU Freshmen.

Students over 25 years of age had the most knowledge about health (mean = 27.54), followed by students 21 to 25 years old (mean = 24.53). The youngest age group of students, 16 to 20 years, had the least knowledge about health (mean = 22.24) (Table 13).

The differences in actual knowledge by age were statistically significant as shown by F = 2.89, p < .001. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to see where the differences in actual knowledge existed (Table 14). There were statistically significant differences in all areas. The age group greater than 25 years had higher means than the other age groups in every
<table>
<thead>
<tr>
<th>Race</th>
<th>N=601</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>531</td>
<td>2.79</td>
<td>3.09</td>
<td>3.38</td>
<td>3.06</td>
<td>3.38</td>
<td>3.13</td>
</tr>
<tr>
<td>Black</td>
<td>57</td>
<td>3.45</td>
<td>3.57</td>
<td>4.13</td>
<td>3.82</td>
<td>3.92</td>
<td>3.90</td>
</tr>
<tr>
<td>Other races(a)</td>
<td>13</td>
<td>2.95</td>
<td>3.21</td>
<td>3.34</td>
<td>3.25</td>
<td>3.10</td>
<td>3.51</td>
</tr>
</tbody>
</table>

| MS           | 11.26 | 7.02           | 14.71     | 14.8             | 10.37                 | 17.05        |
| F, 2 & 598 df | 15.00 | 6.50           | 12.75     | 13.74            | 7.4                   | 12.36        |
| p            | .001  | .002           | .001      | .001             | .001                  | .001         |

*Mean scores based on a scale of 1 to 5.

(a) Hispanic, Oriental, American Indian
Table 13
A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Age of SLU Freshmen.

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20 years</td>
<td>441</td>
<td>22.24</td>
<td>2.91</td>
<td>3.11</td>
</tr>
<tr>
<td>21-25 years</td>
<td>89</td>
<td>24.53</td>
<td>3.14</td>
<td>3.24</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>71</td>
<td>27.54</td>
<td>3.52</td>
<td>3.35</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS 3.85  1.33  1.19
F, 2 & 598 df 2.89  3.17  2.11
p < .001  < .001  .02
Table 14

Mean Scores of Actual Knowledge of Health Areas by Age, SLU Freshmen.

<table>
<thead>
<tr>
<th>Age</th>
<th>N=601</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20 years</td>
<td>441</td>
<td>4.51</td>
<td>3.63</td>
<td>3.08</td>
<td>3.62</td>
<td>3.51</td>
<td>3.90</td>
</tr>
<tr>
<td>21-25 years</td>
<td>89</td>
<td>4.71</td>
<td>4.04</td>
<td>3.37</td>
<td>3.94</td>
<td>3.68</td>
<td>4.41</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>71</td>
<td>5.38</td>
<td>4.94</td>
<td>3.98</td>
<td>4.59</td>
<td>4.52</td>
<td>4.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>MS</th>
<th>F,2 &amp; 598 df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26.10</td>
<td>22.74</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>56.49</td>
<td>31.78</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>25.57</td>
<td>15.21</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>29.79</td>
<td>22.29</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>30.86</td>
<td>12.70</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>11.59</td>
<td>6.28</td>
<td>.002</td>
</tr>
</tbody>
</table>

*Mean scores based on number correct out of a possible 6.
area except alcohol/drug use. In that area, the middle age group had higher means than the other two groups.

**Null Hypothesis 11.** There is no statistically significant difference in perceived health knowledge by age of SLU Freshmen.

Older students felt they had more knowledge than students in the younger age groups. The mean scores of perceived knowledge were 3.52 for students over 25 years, 3.14 for the age group 21 to 25 years, and 2.91 for the 16 to 20 year old students (Table 13).

Differences in perceived knowledge by age were statistically significant as shown by $F = 3.17, p < .001$. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to see where the differences in perceived knowledge by age existed (Table 15). There were statistically significant differences in all areas. The age group greater than 25 years scored higher than the other age groups (16-20 years and 21-25 years) for personal health, nutrition, communicable diseases and mental health. The groups greater than 25 years and 16-20 years of age scored higher than the 21-25 age group for chronic diseases. The over 25 and 21-25 age groups scored higher than the 16-20 age group for the alcohol/drug area.
Table 15

Mean Scores of Perceived Knowledge of Health Areas by Age, SLU Freshmen.

<table>
<thead>
<tr>
<th>Age</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/ Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=601</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-20 years</td>
<td>441</td>
<td>3.00</td>
<td>3.11</td>
<td>3.57</td>
<td>2.50</td>
<td>2.81</td>
</tr>
<tr>
<td>21-25 years</td>
<td>89</td>
<td>3.22</td>
<td>3.32</td>
<td>2.83</td>
<td>2.63</td>
<td>3.01</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>71</td>
<td>3.42</td>
<td>3.69</td>
<td>3.48</td>
<td>3.14</td>
<td>3.41</td>
</tr>
<tr>
<td>MS</td>
<td>6.36</td>
<td>11.18</td>
<td>20.76</td>
<td>12.80</td>
<td>13.13</td>
<td>6.17</td>
</tr>
<tr>
<td>F, 2 &amp; 598 df</td>
<td>10.29</td>
<td>17.90</td>
<td>27.76</td>
<td>16.06</td>
<td>12.45</td>
<td>5.50</td>
</tr>
<tr>
<td>p</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.004</td>
</tr>
</tbody>
</table>

*Mean scores based on a scale of 1 to 5.
Null Hypothesis 12. There is no statistically significant difference in interest in acquiring health knowledge by age of SLU Freshmen.

When age was compared to student interest in acquiring health knowledge older students had more interest than younger students. Students aged 16-20 years had a mean score of 3.11, while students 21-25 years had a mean score of 3.24, and those over 25 years a score of 3.35 (Table 13). Differences in student interest in acquiring health knowledge were statistically significant as shown by $F = 2.11$, $p = .02$. Therefore, the hypothesis of no difference was rejected.

An analysis of variance was performed for each health area to see where differences in interest in acquiring knowledge by age existed (Table 16). There were no statistically significant differences among the age groups for the areas of personal health, communicable diseases and alcohol/drug use.

For nutrition and mental health, the age groups greater than 25 years and 21-25 years scored higher than the 16-20 age group. For chronic diseases, the age group over 25 years had a higher mean than the other two age groups.

Null Hypothesis 13. There is no statistically significant difference in actual health knowledge by residence of SLU Freshmen.
Table 16
Mean Scores of Interest in Acquiring Knowledge of Health Areas by Age, SLU Freshmen.

<table>
<thead>
<tr>
<th></th>
<th>N=601</th>
<th>Personal Health</th>
<th>Nutrition</th>
<th>Chronic Diseases</th>
<th>Communicable Diseases</th>
<th>Mental Health</th>
<th>Alcohol/Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-20 years</td>
<td>441</td>
<td>2.83</td>
<td>3.06</td>
<td>3.39</td>
<td>3.13</td>
<td>3.37</td>
<td>3.21</td>
</tr>
<tr>
<td>21-25 years</td>
<td>89</td>
<td>2.90</td>
<td>3.34</td>
<td>3.45</td>
<td>3.09</td>
<td>3.61</td>
<td>3.26</td>
</tr>
<tr>
<td>&gt; 25 years</td>
<td>71</td>
<td>2.98</td>
<td>3.42</td>
<td>3.70</td>
<td>3.24</td>
<td>3.72</td>
<td>3.19</td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td></td>
<td>.78</td>
<td>6.04</td>
<td>3.67</td>
<td>.49</td>
<td>5.36</td>
<td>.12</td>
</tr>
<tr>
<td><strong>F, 2 &amp; 598 df</strong></td>
<td></td>
<td>.99</td>
<td>5.62</td>
<td>3.08</td>
<td>.44</td>
<td>3.78</td>
<td>.09</td>
</tr>
<tr>
<td><strong>p</strong></td>
<td></td>
<td>.373NS</td>
<td>.004</td>
<td>.046</td>
<td>.642NS</td>
<td>.023</td>
<td>.918NS</td>
</tr>
</tbody>
</table>

*Mean scores based on a scale of 1 to 5.
When differences in actual knowledge were compared by residence, it was found that the mean score for actual knowledge for those from a farm or rural area was 23.77. Those from a small community had a mean score of 23.42, and those from a town or city had a mean score of 23.06 (Table 17). Differences in actual knowledge by residence were not statistically significant as shown by $F = .66$, $p = .76$. Therefore, the hypothesis of no difference in actual knowledge was not rejected.

Null Hypothesis 14. There is no statistically significant difference in perceived health knowledge by residence of SLU Freshmen.

When perceived knowledge was compared by residence, the mean scores were as follows: farm/open country, 2.98; small community, 2.97; and town or city, 3.01 (Table 17). Differences in perceived knowledge by residence were not statistically significant as shown by $F = 1.57$, $p = .11$. Therefore, the hypothesis of no difference in perceived knowledge was not rejected.

Null Hypothesis 15. There is no statistically significant difference in interest in acquiring health knowledge by residence of SLU Freshmen.

When interest in acquiring health knowledge was compared by residence, the mean scores were as follows: farm/open country, 3.17; small community, 3.18; town or city, 3.18 (Table 17). Differences in interest in
Table 17
A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Residence of SLU Freshmen.

<table>
<thead>
<tr>
<th>Location of Residence</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm/open country</td>
<td>93</td>
<td>23.77</td>
<td>2.98</td>
<td>3.17</td>
</tr>
<tr>
<td>Small community</td>
<td>116</td>
<td>23.42</td>
<td>2.97</td>
<td>3.18</td>
</tr>
<tr>
<td>Town or city</td>
<td>392</td>
<td>23.06</td>
<td>3.01</td>
<td>3.18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS .89 .66 .47
F, 2 & 598 df .66 1.57 .84
p .76NS .11NS .58NS
acquiring health knowledge by residence were not statistically significant as shown by $F = .84$, $p = .58$. Therefore, the hypothesis of no difference in interest in knowledge acquisition was not rejected.

**Null Hypothesis 16.** There is no statistically significant difference in actual health knowledge by average high school grade of SLU Freshmen.

When differences in actual knowledge were compared by average high school grades, it was found that the mean score for actual knowledge was 24.58 for those with an "A" average; 23.93 for those with a "B" average; 22.56 for those with a "C" average; and 22.50 for those with a "D" average (Table 18). Differences in actual knowledge by average high school grade were not statistically significant as shown by $F = 1.13$, $p = .32$. Therefore, the hypothesis of no difference in actual knowledge was not rejected.

**Null Hypothesis 17.** There is no statistically significant difference in perceived health knowledge by average high school grade of SLU Freshmen.

When perceived knowledge was compared by average high school grade, it was found that the mean scores were as follows: "A" average, 3.19; "B" average, 3.06; "C" average, 2.92; and "D" average, 2.99 (Table 18). Differences in perceived knowledge by average high school
Table 18
A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Average High School Grade of SLU Freshmen.

<table>
<thead>
<tr>
<th>Average High School Grade</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot; average</td>
<td>36</td>
<td>24.58</td>
<td>3.19</td>
<td>3.44</td>
</tr>
<tr>
<td>&quot;B&quot; average</td>
<td>248</td>
<td>23.93</td>
<td>3.06</td>
<td>3.23</td>
</tr>
<tr>
<td>&quot;C&quot; average</td>
<td>305</td>
<td>22.56</td>
<td>2.92</td>
<td>3.13</td>
</tr>
<tr>
<td>&quot;D&quot; average</td>
<td>12</td>
<td>22.50</td>
<td>2.99</td>
<td>2.60</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS 1.52 .59 .81
F, 3 & 597 df 1.13 1.43 1.43
p .32NS .12NS .12NS
grade were not statistically significant as shown by $F = 1.43, p = .12$. Therefore, the hypothesis of no difference in perceived knowledge was not rejected.

**Null Hypothesis 18.** There is no statistically significant difference in interest in acquiring health knowledge by average high school grade of SLU Freshmen.

When interest in acquiring health knowledge was compared by average high school grade, it was found that the mean scores were as follows: "A" average, 3.44; "B" average, 3.23; "C" average, 3.13; "D" average, 2.60 (Table 18). Differences in interest in acquiring health knowledge were not statistically significant as shown by $F = 1.43, p = .12$. Therefore, the hypothesis of no difference in interest in knowledge acquisition was not rejected.

**Null Hypothesis 19.** There is no statistically significant difference in actual health knowledge by previous health course of SLU Freshmen.

Students who had a previous health course scored slightly lower on the knowledge test than students who had not had a health course (mean of 23.09 versus 23.29) (Table 19). However, this difference was not statistically significant as shown by $F = 1.05, p = .38$. Therefore, the hypothesis of no difference in actual knowledge was not rejected.
Table 19

A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Previous Health Course of SLU Freshmen.

<table>
<thead>
<tr>
<th>Previous health course</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>154</td>
<td>23.09</td>
<td>3.05</td>
<td>3.10</td>
</tr>
<tr>
<td>No</td>
<td>447</td>
<td>23.29</td>
<td>2.98</td>
<td>3.20</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS 1.41 .56 .39
F, 1 & 599 df 1.05 1.33 .70
p .38NS .24NS .62NS
Null Hypothesis 20. There is no statistically significant difference in perceived health knowledge by previous health course of SLU Freshmen.

Students who had a previous health course had a slightly higher score of perceived knowledge (mean = 3.05) compared with students who had not had such a course (mean = 2.98) (Table 19). This difference was not statistically significant as shown by $F = 1.33, p = .24$. Therefore, the hypothesis of no difference in perceived knowledge was not rejected.

Null Hypothesis 21. There is no statistically significant difference in interest in acquiring health knowledge by previous health course of SLU Freshmen.

Interest in acquiring health knowledge was compared by students having had a previous health course. It was found that those who had a previous course had less interest in acquiring more knowledge (mean = 3.10) compared with students who had not had such a course (mean = 3.20) (Table 19). This difference in student interest in acquiring health knowledge by whether or not they had had a health course was not statistically significant as shown by $F = .70, p = .62$. Therefore, the hypothesis of no difference in interest in knowledge acquisition was not rejected.
Null Hypothesis 22. There is no statistically significant difference in actual health knowledge by health taught as part of a course for SLU Freshmen.

When differences in actual knowledge scores were compared by whether or not students had health taught as part of a course, it was found that the mean score was 23.37 for those who had and 22.78 for those who did not (Table 20). The difference in actual knowledge by whether or not students had health as part of another course was not statistically significant as shown by $F = .65$, $p = .66$. Therefore, the hypothesis of no difference in actual knowledge was not rejected.

Null Hypothesis 23. There is no statistically significant difference in perceived health knowledge by health taught as part of a course for SLU Freshmen.

Perceived knowledge was compared by whether or not students had health taught as part of a course. It was found that those who had health taught as part of a course had a mean score of 3.03 while 2.89 was the mean for those who did not (Table 20). Differences in perceived knowledge by whether or not students had health taught as part of a course were not statistically significant as shown by $F = 1.58$, $p = .16$. Therefore, the hypothesis of no difference in perceived knowledge was not rejected.

Null Hypothesis 24. There is no statistically significant difference in interest in acquiring health
Table 20

A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Health Taught as Part of a Course of SLU Freshmen.

<table>
<thead>
<tr>
<th>Health taught as part of a course</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>469</td>
<td>23.37</td>
<td>3.03</td>
<td>3.21</td>
</tr>
<tr>
<td>No</td>
<td>132</td>
<td>22.78</td>
<td>2.89</td>
<td>3.06</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

| MS                                | .87 | .66 | 1.91 |
| F, 1 & 599 df                     | .65 | 1.58 | .33 |
| p                                 | .66NS | .16NS | .89NS |
knowledge by health taught as part of a course for SLU Freshmen.

Interest in health knowledge was compared by whether or not students had health taught as part of a course. It was found that those who had health taught as part of a course had a mean score of 3.21 while those who did not had a mean score of 3.06 (Table 20). Differences in interest in knowledge acquisition by whether or not students had health taught as part of a course were not statistically significant as shown by \( F = .33, p = .89 \). Therefore, the hypothesis of no difference in interest in knowledge acquisition was not rejected.

**Null Hypothesis 25.** There is no statistically significant difference in actual health knowledge by health taught in specific courses for SLU Freshmen.

Students were asked to identify courses in which health was taught. They were as follows: Physical Education, 82 percent; Biology, 9 percent; Home Economics, 7 percent; and other courses, 2 percent.

When differences in actual knowledge were compared for students who had health taught as part of a specific course, it was found that the mean scores were: Biology, 23.95; Home Economics, 25.03; Physical Education, 23.16; other courses, 23.63 (Table 21). The differences in actual knowledge by the course in which health was taught were not statistically significant as shown by \( F = 1.43, p \)
Table 21

A Comparison of Mean Scores of Actual Health Knowledge, Perceived Health Knowledge and Interest in Acquiring Health Knowledge by Health Taught in Specific Courses of SLU Freshmen.

<table>
<thead>
<tr>
<th>Courses</th>
<th>N</th>
<th>Mean score actual knowledge</th>
<th>Mean score perceived knowledge</th>
<th>Mean score interest level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>42</td>
<td>23.95</td>
<td>3.05</td>
<td>3.18</td>
</tr>
<tr>
<td>Home Ec.</td>
<td>30</td>
<td>25.03</td>
<td>3.06</td>
<td>3.39</td>
</tr>
<tr>
<td>Physical Education</td>
<td>386</td>
<td>23.16</td>
<td>3.02</td>
<td>3.21</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>23.63</td>
<td>3.29</td>
<td>2.93</td>
</tr>
<tr>
<td>Total</td>
<td>601</td>
<td>23.24</td>
<td>3.00</td>
<td>3.18</td>
</tr>
</tbody>
</table>

MS 1.76 .36 1.80
F, 3 & 465 df 1.43 .87 1.45
p .12NS .58NS .11NS
Therefore, the hypothesis of no difference in actual knowledge was not rejected.

**Null Hypothesis 26.** There is no statistically significant difference in perceived health knowledge by health taught in specific courses for SLU Freshmen.

When differences in perceived knowledge were compared for students who had health taught as part of a specific course, it was found that the mean scores were: Biology, 3.05; Home Economics, 3.06; Physical Education, 3.02; other courses, 3.29 (Table 21). The differences in perceived knowledge by the course in which health was taught were not statistically significant as shown by $F = .87$, $p = .58$. Therefore, the hypothesis of no difference in perceived knowledge was not rejected.

**Null Hypothesis 27.** There is no statistically significant difference in interest in acquiring health knowledge by health taught in specific courses for SLU Freshmen.

When differences in interest in acquiring health knowledge were compared for students who had health taught as part of a specific course, it was found that the mean scores were: Biology, 3.18; Home Economics, 3.39; Physical Education, 3.21; other courses, 2.93 (Table 21). The differences in interest in acquiring health knowledge by the course in which health was taught were not statistically significant as shown by $F = 1.45$, $p = .11$. 
Therefore, the hypothesis of no difference in interest in knowledge acquisition was not rejected.
The purpose of the study was to evaluate the health knowledge of entering college freshmen with a view to adapting health education at the college and secondary level.

The population for the study consisted of entering freshmen at Southeastern Louisiana University in the fall of 1985. A 35 percent sample was drawn. The research questionnaire was administered in a group setting.

The questionnaire was built around six areas of health knowledge, namely personal health, nutrition, chronic diseases, communicable diseases, mental health and alcohol/drug abuse. Actual knowledge, perception of knowledge, and interest in acquiring more knowledge of a number of items in each area were assessed.

Three null hypotheses of relationships among actual knowledge, perceived knowledge and interest in acquiring more knowledge were tested using the Pearson Product-Moment Correlation for the overall sample. Twenty-four null hypotheses of differences in actual knowledge, perceived knowledge, and interest in acquiring more knowledge were tested using the analysis of variance procedure for the variables of sex, race, age, residence,
average high school grade, and health education in high school.

**Major Findings**

**Health knowledge**

1. Out of a possible 36 points, the mean knowledge of students on a knowledge test was 23.24. The highest score was obtained in the area of personal health (4.62), and the lowest in the area of chronic diseases (3.22).

   This finding agrees with the study by Shaw (1969) of the health knowledge and interests of high school and college students. He also found that the students knew the most about personal health but needed more information on chronic diseases and nutrition. Enarson (1981) saw the need for more education in the areas of chronic diseases and nutrition in view of the non-futuristic outlook of the average adolescent and early adult. These groups see the need for health education in things that affect them now such as personal health.

2. Out of a possible 5 points, the mean perceived knowledge of students was 3.0. Students perceived themselves as having most knowledge in alcohol/drug abuse (3.52) and least knowledge about communicable diseases (2.59).

3. Out of a possible 5 points, the mean score of student interest in acquiring more knowledge was 3.18.
Greatest interest was expressed in the area of chronic diseases (3.47), and least interest in personal health (2.85).

This finding does not agree with the findings of Lantagne (1952), Byler (1969), Davis (1984), Downey (1984), and Gaines (1984) who found that students were more interested in problems of chronic and personal health, nutrition, first aid, and drug use and abuse. Mental health was an area of less interest.

4. Out of a possible 5 points, mothers received a mean score of 4.27 as the most important source of health information. Doctors received the next highest mean score (3.87).

5. None of the students indicated being in poor health. The majority (74%) rated themselves as being in very good or excellent health.

Relationships among actual knowledge, perceived knowledge, and interest in acquiring more knowledge.

1. Positive and statistically significant relationships for the total sample were found between actual knowledge and perceived knowledge, perceived knowledge and interest in acquiring more knowledge, and actual knowledge and interest in acquiring more knowledge.

2. The researcher broke the total sample into groups according to sex, race, age, residence, average high school grade and previous health education experience.
Correlations were determined to see if the same relationships existed.

Most of the correlations were statistically significant, but the correlation coefficients were in the low to moderate range. There were only two high correlations. Other races had a correlation of \( r = .65 \) when actual health knowledge and interest in acquiring health knowledge were compared. Those with an "A" average had a correlation of \( r = .61 \) when perceived health knowledge and interest in acquiring health knowledge were compared.

**Differences in actual knowledge, perceived knowledge, and interest in acquiring more knowledge by demographic and educational variables.**

1. Females had significantly more actual health knowledge than males. Their self-perceived knowledge was also greater than that of males. These differences favoring females persisted in all six health areas, except alcohol/drug abuse, wherein actual knowledge was the same for both sexes. Males and females also had the same level of interest in acquiring more knowledge.

This finding supports the findings of Nadelson (1983), Golanty (1982), Stoll (1974), and Carmichael (1977). They suggested that females are the primary nurturers and caregivers in the family, and this characteristic is passed on from mother to daughter. As a result, females have a better overall perspective of
health issues than males. There is also agreement with the Glover study (1980) in which it was determined that females scored significantly higher than males on an actual health knowledge test. Again, as was found in this study, Baldi (1982) showed that males and females had similar interests in having a health education course.

2. Actual health knowledge of whites, blacks and other races (Hispanic, Oriental, American Indian) was the same. Perceived health knowledge of other races was the highest followed by blacks, then whites. This was one case where a set alpha of .05 rather than .10 would have made this test non-significant rather than significant (p was = .08). The only difference in perceived knowledge was in the mental health area. Blacks indicated the greatest interest in acquiring more health knowledge, followed by other races and whites. This was another case where a set alpha of .05 rather than .10 would have made this test non-significant rather than significant (p was = .09). Blacks indicated the greatest interest and whites the least in all health areas except mental health wherein whites expressed greater interest than other races.

This finding does not concur with the Texas study (Glover, 1980) in which it was observed that white students scored significantly higher on the actual knowledge test than other races.
3. Students above 25 years of age had the most actual health knowledge, perceived themselves as having most knowledge and showed the greatest interest in acquiring more knowledge. Students 21-25 years old fell between these older students on all three dimensions and the youngest students who were 16-20 years of age. This pattern of difference was evident in all health areas with regard to actual and perceived knowledge. However, the differences in interest in acquiring more knowledge were significant only in the areas of nutrition, chronic diseases and mental health.

This finding supports the studies of Chervin (1986), Enarson (1981), and Glover (1980) in which it was found that older students have a higher health knowledge level than younger, probably because of the advantage of experience. Many older students have children of their own, and this helps to expand their health knowledge.

4. Regardless of where they lived, students had essentially the same actual and perceived knowledge and interest in acquiring more knowledge.

This finding does not agree with the Texas study (Glover, 1980) in which it was found that those from more populated areas had significantly higher scores than those from less populated areas.

5. Average grade in high school did not make any difference in the health knowledge of students and their interest in acquiring more knowledge.
This finding is not in agreement with Glover's (1980) observation that students with higher grade point averages scored significantly higher than those with lower grade point averages.

6. Whether or not students had a previous health course or learned health as part of another course or specific courses, they had essentially similar health knowledge and interest in acquiring more knowledge.

This finding does not agree with Shaw (1969) who found that there were significant differences in health knowledge after health instruction. These instructions, though, were given to freshmen college students.

Glover (1980) also found that prior health education experience did not yield any test score differences among students having no formal course, a high school course or a college course.

Conclusions and Recommendations

1. Entering college freshmen have some knowledge of health as evidenced by their scores on the knowledge test administered in this study. However, to be able to take care of their health from a maintenance standpoint, it would appear that they need to gain more knowledge, particularly in the areas of chronic and communicable diseases and mental health. That they had the greatest interest in acquiring additional knowledge of chronic
diseases and mental health would suggest learning readi-
ness on their part for such knowledge.

2. Interest expressed by students in acquiring addi-
tional knowledge of health areas was generally favorable. 
This would imply that a broad range of health subjects 
could be included in educational programs at the college 
level.

3. From the standpoint of the methodology of 
knowledge testing and/or evaluation, the finding that 
actual knowledge and self-perceived knowledge of freshmen 
were positively correlated has important connotations. 
Where resource (time, funds, staff) constraints and other 
considerations may limit or prevent the administration of 
knowledge tests, and provided this relationship is 
consistent, it would appear that assessing self-perceived 
knowledge of this group of students is sufficient in 
planning educational programs. Further research on this 
relationship, however, is recommended to substantiate the 
finding. It is also recommended that the direction and 
strength of this relationship be tested in subject-matter 
areas other than health, with college students at the 
sophomore, junior and senior levels, as well as with 
students at the secondary level.

4. Interest in acquiring additional health knowledge 
was positively correlated with both actual knowledge and 
perceived knowledge. This implies that students who have
or perceived themselves as having greater health knowledge are also likely to be more interested in learning more about health. Insofar as this group of students is concerned, it is a favorable situation for the health educator. However, it would appear that the challenge for the educator lies in motivating the less knowledgeable and less interested individuals.

5. The observed differences in health knowledge by certain demographic and educational variables would suggest to health educators the necessity of designing college health education programs which take into consideration these differences. The specific variables where differences were observed are discussed below and suggestions offered.

a. That females scored higher than males on the knowledge test and also perceived themselves to be more knowledgeable is to be expected since they have more exposure to and experiences in health care in a variety of situations such as at home, in school, and in community settings than do males. Alternate methods of bringing information and actual experiences to males should be explored. Mass media, male role models, and health and living courses are some avenues to accomplish this goal. They should also be encouraged to take health-related courses such as home living, marriage and the family in high school and college. Furthermore, pamphlets and other
educational materials tailored to the health needs of males need to be developed.

b. Whites expressed least interest in acquiring additional health knowledge, blacks the most interest and Hispanic, Oriental and American Indian students moderate interest. But the relatively low knowledge scores of all races in the different health areas would suggest that race should probably not be considered as a major factor in designing educational programs. However, besides the formal health education programs in school and college, it would be useful to explore alternate educational strategies built around institutions such as the church, community centers, etc. which can reach and account for unique ethnic needs.

c. The finding that older students had more actual and perceived health knowledge and were also more interested in acquiring additional information than younger students is to be expected. Older students are more mature in their outlook and have had more opportunity to learn about and appreciate the value of health care and health knowledge, particularly from a long-range perspective. Younger students, as was revealed in the literature, have other personal concerns besides their health. It is recommended that before health educators design educational programs for college level students, they should consider the special subject-matter needs of different age groups.
d. Students who had health education experiences in high school did not have more knowledge or interest in acquiring additional knowledge than those who did not have these experiences. This was the case regardless of the type of learning experience—a specific health course or health taught as a part of other courses, such as biology, physical education, etc. This suggests that formal programs at the secondary level are either not providing the necessary knowledge or that students are not retaining the information to any significant degree. It is important that school curricula, teachers and administrators ensure that students are provided with a strong health education base in their early years, particularly impressionable adolescents who form relatively stable living styles at their age. If this is not done, health education courses in college cannot build on a sound foundation and will instead have to be remedial in nature. In this connection, secondary health education courses should be evaluated for content and structure, and possible inclusion in the school curriculum core as specific courses. It is important that secondary health education be in the hands of qualified, competent and interested teachers, and that an assessment be made of health education programs at the elementary and secondary levels.

6. Obviously, there are many sources from which individuals can acquire health information in addition to
formal courses. Since students did express a fair degree of interest in learning more about health, it would be useful to capitalize on this interest by providing non-traditional learning opportunities, such as non-formal programs by community health agencies (The Red Cross, March of Dimes, Cancer Society, Fitness Centers, etc.), hospitals, health fairs, and health booths at shopping malls, community centers, fairs and festivals, church events, etc. In support of these activities, educational materials in the form of pamphlets, films, etc. could be made available by sponsoring agencies, and/or could be developed for the purpose.

7. This study was limited to entering college freshmen. It is recommended that further work be done with sophomores, juniors and seniors to see if a similar pattern exists. It would also be useful to conduct similar research at the secondary level with high school graduates who chose not to attend college or who attended a business or vocational school, as well as students who dropped out of high school. The findings from these studies would strengthen the knowledge base of health education and give both secondary and college teachers a better understanding of health education needs and problems of young people.
REFERENCES CITED


Hanson, D. J. "Trends in Drinking Attitudes and Behaviors Among College Students." Journal of Alcohol and Drug Education. 22:3 (1977), 17-22.


APPENDIX A

QUESTIONNAIRE
SECTION I

Personal Data

Fill in or check the appropriate blank:

Sex:   Male _____  Race:  Black _____
       Female _____  White _____
                     Hispanic _____
                     American _____
                     Indian _____
                     Oriental _____
                     Other _____

Age:  At last birthday: ____________________________

Year graduated from high school __________

High school grade point average:
   If you know exact GPA, please give it _______
   If you don't know exact GPA, give the range you
   would fit in:

   A_____ B_____ C_____ D_____ 

Name of High School _____________________________.

Check the one which best describes where you live (that
is, where your home is located):

_____ Farm or open country
_____ Small community (approximate population of less than
   5,000 people)
_____ Town or city (approximate population of more than
   5,000 people)

Name of home town, community or city_________________.

Name of Home Parish (County)_______________________.

Did you have a separate health course in high school (a
course in health was the only subject taught)?

   _____ Yes   _____ No
Did you have health taught as part of another course?

_____ Yes   _____ No

If so, what was it taught with?

Biology
Home Economics
Physical Education
Other: (write in)

How would you rate yourself regarding your current health status? (Circle one)

5  4  3  2  1
Excellent  Very Fairly Somewhat Poor
5  4  3  2  1
Very Fairly Somewhat Poor
good good poor

To what extent would you say each of the following sources contributed to your health knowledge? (for example, if very much from mother, put "5", etc.)

Use the following scale:

5  4  3  2  1
Very Some Little Very None or
much good little does not

_____ my mother
_____ my father
_____ my spouse
_____ (husband or wife)
_____ my grandparents
_____ my sisters
_____ my brothers
_____ my aunts/uncles
_____ my neighbors
_____ my school classes

_____ my friends
_____ my doctor
_____ my school nurse
_____ my doctor's nurse
_____ books/pamphlets
_____ TV/films
_____ religious groups
_____ youth groups such as
_____ 4-H and scouts
_____ Other (please state):
SECTION II

Perception of Health Knowledge

How much would you say you know about the following areas of health, that is your present knowledge? Would you say very much, much, some, little or none? (write 5, 4, 3, 2, or 1 for each as follows):

<table>
<thead>
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<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very much</td>
<td>Much</td>
<td>Some</td>
<td>Little</td>
<td>Very little or none</td>
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Personal Health

_____ The condition of self-purging (eating and then making self to vomit)
_____ The condition of self-starvation (anorexia nervosa)
_____ Obesity (overweight)
_____ Dental care
_____ First aid such as treating poisonings and cuts

Nutrition

_____ Sources of protein
_____ Uses of sugar
_____ Importance of roughage
_____ Calories
_____ Cooking of foods
_____ Food poisoning

Chronic Diseases

_____ Prevention, signs and symptoms, and treatment for cancer
_____ Prevention, signs and symptoms, and treatment for heart disease
_____ Importance of periodic health examination
_____ Allergies
Communicable Diseases

Prevention, signs and symptoms, and treatment of:

- Colds and flu
- Acquired Immune Deficiency Syndrome (AIDS)
- Herpes
- Measles
- Syphilis
- Gonorrhea

Mental Health

- Attainment of emotional stability/maturity
- Prevention of types of fatigue
- Prevention of types of stress

Alcohol/Drug Use and Abuse

- Problems associated with drinking alcohol
- Problems associated with smoking
- Problems associated with caffeine
- Problems associated with illegal drug use
SECTION III
Health Knowledge Level

In the blank in front of each statement place the number of that answer which you think is correct.

Personal Health

1. _____ Which condition is manifested by eating a large amount of food and then purging (making self to vomit)?
   1. Uremia
   2. Anemia
   3. Bulimia
   4. Toxemia

2. _____ A dangerous disorder which is on the increase (especially in college-age women) and which is related to mental health and nutrition is:
   1. Goiter
   2. Anorexia Nervosa (self-starvation)
   3. Tetanus
   4. Hypochondriosis

3. _____ Most people who are overweight are so primarily because:
   1. They have a poor digestive system.
   2. They have inherited the tendency.
   3. They have an underactive thyroid gland.
   4. They eat too much fattening food and exercise too little.

4. _____ Which one of these chemical salts, when found in drinking water or applied to the teeth, helps to reduce tooth decay?
   1. Chlorides
   2. Fluorides
   3. Sulphates
   4. Carbonates
5. ____ Which one of the following statements on teeth and their care is true?

1. Since wisdom teeth (third molars) are useless and decay early, the sooner they are extracted, the better.
2. Plaque can be cured by the right kind of toothpaste.
3. Eating soft, sugary foods and candies contributes to tooth decay.
4. One's physical condition has little effect on the health of the teeth.

6. ____ When a strong acid has accidentally come in contact with the skin, one should immediately:

1. Wash it off with plenty of water, preferably alkaline.
2. Cover it with oil.
3. Apply an ointment dressing.
4. Wash it off with rubbing alcohol.

Nutrition

7. ____ All except which one food can be used instead of red meat as a source of protein?

1. Fish
2. Dried beans and peas
3. Macaroni
4. Poultry

8. ____ In which way is sugar used in the body?

1. To yield energy
2. To build tissue
3. To regulate the body processes
4. To yield energy and build tissue

9. ____ Milk, which is high in protein and vitamins, completely lacks which one of the following food essentials?

1. Roughage
2. Fats
3. Carbohydrates
4. Minerals
10. ____ A glass of drinking water contains approximately how many calories?

1. None
2. 10
3. 100
4. 200

11. ____ The cooking of foods decreases particularly the value of:

1. Protein
2. Fats
3. Vitamins
4. Calories

12. ____ Botulism refers to:

1. A type of food poisoning
2. One of the newer drugs
3. An enzyme
4. A tropical disease

Chronic Disease

13. ____ The number of cases of organic diseases such as heart trouble and cancer compared with communicable diseases such as typhoid and diphtheria is:

1. Increasing
2. The same
3. Decreasing
4. Not known

14. ____ The periodic health examination is valuable in the detection and prevention of all except which one of these diseases?

1. Typhoid fever
2. Heart diseases
3. Diabetes
4. Cancer

15. ____ Where does heart disease rank as a cause of death in the United States today?

1. First
2. Second
3. Fifth
4. Eighth
16. ____ Which one statement concerning the heart and exercise is incorrect?

1. If heart trouble is already present, excessive muscular activity may lead to trouble.
2. Some heart patients benefit from medically prescribed exercise.
3. Exercise causes "athlete's heart."
4. The death rate from heart disease is lower for people who do heavy physical work as compared with those who do sedentary work.

17. ____ The best method today of lowering the death rate from cancer is by:

1. Early diagnosis.
2. Repeated use of radium and X-ray.
3. Improvement in one's general health.
4. Early operation.

18. ____ Which statement about the inheritance of allergies is the most accurate?

1. Allergies are inherited.
2. Allergies are not inherited.
3. The tendency to develop allergies is inherited.
4. It is not known definitely whether there is an inherited factor.

Communicable Diseases

19. ____ Can communicable diseases be inherited? (Consider only biological inheritance.)

1. Many but not all communicable diseases can be inherited.
2. It is only occasionally that such diseases are inherited.
3. Tuberculosis is one of the two or three communicable diseases that may be inherited.
4. Communicable diseases cannot be inherited.

20. ____ Having which disease(s) does not make the person immune to a second attack of the disease(s)?

1. Colds and flu
2. Mumps
3. Measles
4. Typhoid fever
21. ____ Diseases which are on the increase in the United States are:

1. Diphtheria and smallpox
2. "AIDS" and herpes
3. Tuberculosis and polio
4. Mumps and whooping cough

22. ____ Which disease is transmitted by personal contact?

1. Cancer
2. Anemia
3. Viruses (such as those of "colds" and "flu")
4. Tetanus

23. ____ Venereal diseases (syphilis and gonorrhea) are most frequently contracted in which age group?

1. 13-18 years
2. 19-24 years
3. 25-30 years
4. 31-36 years

24. ____ The blood test required in many states before a marriage license is issued for the purpose of determining whether or not either party has:

1. Syphilis
2. Gonorrhea
3. Tuberculosis
4. Hemophilia

Mental Health

25. ____ Many people lack emotional stability in adult life. The characteristic most probably is traceable to:

1. Early home life
2. Early school life
3. Bad companions
4. Heredity
26. _____ Three of the following four personality traits indicate emotional maturity in a person. Which one does not?

1. Self-discipline
2. Self-satisfaction
3. Determination
4. Independence

27. _____ Which one of these factors contributes most to good mental health?

1. Daydreaming
2. Facing the realities of life
3. Seldom facing unpleasant situations
4. A great deal of introspection

28. _____ The most serious type of fatigue is induced by:

1. Physical work
2. Mental work
3. Emotional strain
4. Not known

29. _____ Fatigue due to sedentary or mental work is best relieved at the end of one's working hours by:

1. Coffee
2. Sleep
3. A shower
4. Recreational activity of a physical type

30. _____ The type of illness that occurs when emotional tension and stress create functional bodily disorders, such as headaches and high blood pressure, is known as:

1. Psychosomatic condition
2. Neurosis
3. Psychosis
4. Insanity

Alcohol/Drug Use and Abuse

31. _____ Which statement is most often true about alcoholics?

1. They eventually become insane.
2. They show personality changes.
3. They suffer from infectious diseases.
4. They suffer from malnutrition.
32. ___ The physiological effect of alcohol upon the nervous system is:

1. As a stimulant.
2. As a depressant.
3. As both a stimulant and a depressant.
4. Either, depending upon the person.

33. ___ What is it in tobacco smoking which causes lung cancer?

1. Nicotine and tars
2. Tobacco spots
3. Carbon monoxide in tobacco smoke
4. The heat of the smoke

34. ___ Cigarette smoking produces all of the following effects except which one?

1. It causes shortness of breath.
2. It causes an increase in mental alertness.
3. It causes a measurable rise in blood pressure.
4. It makes the extremities (feet and hands) cold.

35. ___ Soft drinks of the cola type contain sugar and a drug, caffeine, which acts as a:

1. Depressant
2. Stimulant
3. Narcotic
4. Vitamin

36. ___ What is meant by "tolerance" as used in speaking of drug addiction?

1. A sense of well-being and relaxation caused by the drug.
2. The need for larger doses of the drug with continued use.
3. Physical dependence on the drug.
4. Emotional dependence on the drug.
## KEY TO SECTION III
HEALTH KNOWLEDGE LEVEL

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SECTION IV

Interest in Learning More About Health

Rate the following topics as to whether or not you are interested in learning more about them.

Use the following scale:

5  4  3  2  1
Very much  Much  Somewhat  A little  Very little or interested interested interested interested no interest at all

Personal Health

_____ Problems with the condition of self-purging (eating and then making self to vomit)
_____ Problems with the condition of self-starvation (anorexia nervosa)
_____ Obesity (overweight)
_____ Dental care
_____ First aid such as treating poisonings and cuts

Nutrition

_____ Sources of protein
_____ Uses of sugar
_____ Importance of roughage
_____ Calories
_____ Cooking of foods
_____ Food poisoning

Chronic Diseases

_____ Prevention, signs and symptoms, and treatment for cancer
_____ Prevention, signs and symptoms, and treatment for heart disease
_____ Importance of periodic health examination
_____ Allergies
Communicable Diseases

Prevention, signs and symptoms, and treatment of:
- Colds and flu
- Acquired Immune Deficiency Syndrome (AIDS)
- Herpes
- Measles
- Syphilis
- Gonorrhea

Mental Health

- Attainment of emotional stability/maturity
- Prevention of types of fatigue
- Prevention of types of stress

Alcohol/Drug Use and Abuse

- Problems associated with drinking alcohol
- Problems associated with smoking
- Problems associated with caffeine
- Problems associated with illegal drug use
APPENDIX B

COVER LETTER
TO: INCOMING FRESHMEN AT SOUTHEASTERN LOUISIANA UNIVERSITY

As a beginning freshman at SLU, you have been selected to participate in a study of health knowledge of college freshmen. This research is for my doctoral dissertation in Extension Education at Louisiana State University.

The success of this project is dependent upon your cooperation. I appreciate you sharing your knowledge and opinions with me. Thank you.

______________________________________________
Peggy Wax Harris

DO NOT WRITE YOUR NAME ON THE QUESTIONNAIRE. This is an anonymous study. PLEASE ANSWER ALL THE QUESTIONS ON THE QUESTIONNAIRE.
APPENDIX C

RESPONDENTS' RATING OF SOURCES OF HEALTH KNOWLEDGE

ACCORDING TO IMPORTANCE OF EACH SOURCE
### Appendix C

Respondents' Rating of Sources of Health Knowledge According to Importance of Each Source.

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<th>Some</th>
<th>Little</th>
<th>Very Little</th>
<th>None or does not Apply</th>
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* The number reporting varies according to not applicable source, i.e., no mother, etc.

**Mean = rank of rating based on 5 = very much, 4 = some, 3 = little, 2 = very little, 1 = none or does not apply.
APPENDIX D

ACTUAL HEALTH KNOWLEDGE OF FRESHMEN STUDENTS
AT SOUTHEASTERN LOUISIANA UNIVERSITY IN 1985
## Appendix D

Actual Health Knowledge of Freshman Students at Southeastern Louisiana University in 1985.*

<table>
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<tr>
<th>Health Areas**</th>
<th>Percent Who Answered Correct</th>
<th>Percent Who Answered Incorrect</th>
<th>Mean Score</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. The condition of self-purging</td>
<td>55</td>
<td>45</td>
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</tr>
<tr>
<td>2. The condition of self-starvation</td>
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<tr>
<td>3. Obesity</td>
<td>71</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>4. Dental care</td>
<td>90</td>
<td>10</td>
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</tr>
<tr>
<td>5. Dental care and nutrition</td>
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<td>20</td>
<td></td>
</tr>
<tr>
<td>6. First aid</td>
<td>83</td>
<td>17</td>
<td></td>
</tr>
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<td><strong>Nutrition</strong></td>
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<td></td>
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<td>50</td>
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<td>2. Uses of sugar</td>
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<tr>
<td>3. Milk</td>
<td>63</td>
<td>37</td>
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</tr>
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<td>4. Calories</td>
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<td></td>
</tr>
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<td>5. Cooking of foods</td>
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<td>46</td>
<td></td>
</tr>
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<td>6. Food poisoning</td>
<td>80</td>
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<tr>
<td><strong>Chronic Diseases</strong></td>
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<td>1. Heart trouble and cancer</td>
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<tr>
<td>2. Health exams</td>
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<td>3. Heart disease increasing</td>
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<td>63</td>
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<tr>
<td>4. Exercise</td>
<td>47</td>
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<td>5. Cancer and early diagnosis</td>
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</tr>
<tr>
<td>6. Allergies</td>
<td>32</td>
<td>68</td>
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</table>

* The actual health knowledge was based on a health test of selected health-related items. The items listed here under each health area are just an abbreviated statement which reflect the content of the actual test items. See questionnaire (Appendix A) for actual test section.

** Each area reflects a total of 601 students.

*** Based on mean score of number correct out of a possible 36.

**** Based on mean score of number correct out of a possible 6.
### Appendix D

**(Continued)**

<table>
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<th>Health Areas</th>
<th>Percent Who Answered</th>
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</tr>
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<td>2. Immunity to colds/flu</td>
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<td>38</td>
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</tr>
<tr>
<td>3. AIDS on the increase</td>
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<td></td>
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<tr>
<td>4. Viruses</td>
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<tr>
<td>5. Venereal diseases</td>
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<tr>
<td>6. Syphilis and blood test</td>
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<td><strong>Mental Health</strong></td>
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<td>3.64</td>
</tr>
<tr>
<td>1. Emotional stability</td>
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<td>2. Emotional maturity</td>
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<td>3. Good mental health</td>
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<td>5. Fatigue</td>
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<td>6. Psychosomatic condition</td>
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<td>3. Tobacco smoking and nicotine</td>
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<td>4. Effects of smoking</td>
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<td>5. Caffeine as a stimulant</td>
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<td>6. Drug addiction</td>
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APPENDIX E
PERCEIVED HEALTH KNOWLEDGE OF FRESHMEN STUDENTS
AT SOUTHEASTERN LOUISIANA UNIVERSITY IN 1985
Appendix E

Perceived Health Knowledge of Freshmen Students at Southeastern Louisiana University in 1985.

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<th>Little</th>
<th>Very little or none</th>
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<td>18</td>
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<td>5. First aid</td>
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* Each area reflects a total of 601 students.
**Based on values of 5, 4, 3, 2, 1 from very much to very little or none.
Appendix E
(continued)

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<th>Health Areas*</th>
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***Mean score for entire section.
APPENDIX F

INTEREST IN ACQUIRING HEALTH KNOWLEDGE BY FRESHMEN STUDENTS AT SOUTHEASTERN LOUISIANA UNIVERSITY IN 1985
Appendix F

Interest in Acquiring Health Knowledge by Freshmen Students at Southeastern Louisiana University in 1985.

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<td>3. Importance of roughage</td>
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* Each area reflects a total of 601 students.

**Based on values of 5, 4, 3, 2, 1 from very much to very little or none.
## Appendix F
(continued)

<table>
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<tr>
<th>Health Areas*</th>
<th>Very much Interested</th>
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<th>Somewhat Interested</th>
<th>A little Interested</th>
<th>Very little or no Interest</th>
<th>Mean Score**</th>
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<td>4. Allergies</td>
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<td>2. Acquired Immune Deficiency Syndrome (AIDS)</td>
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<td>3. Herpes</td>
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<td>5. Syphilis</td>
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<td>6. Gonorrhea</td>
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<td>Health Areas*</td>
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<td>A little Interested</td>
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<td>24</td>
<td>27</td>
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<td>2. Problems with smoking</td>
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<td>3. Problems with caffeine</td>
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<td>21</td>
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<td>15</td>
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<td>4. Problems with illegal drug use</td>
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<td>27</td>
<td>14</td>
<td>15</td>
<td><strong>3.24</strong>*</td>
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</table>

***Mean score for entire section.
BIographiesAL PROFILE

The author is a life-long resident of Denham Springs, Louisiana. She is a "post-war" baby from 1948.

She attended the public schools in Livingston Parish and graduated in 1966 from Denham Springs High School. She is the daughter of a retired school principal and a retired school teacher. Her only sibling, a sister, is a public school teacher also.

The author went to college in the "troubled" 60's. After completing one year of Pre-Nursing at LSU-BR she spent three years at LSU Medical Center in New Orleans and obtained a Bachelor of Science degree in Nursing in May, 1970.

She took the state board exam and became a registered nurse in July, 1970.

At this time she married her "high school sweetheart," a coach and school teacher (now a school principal). They live in their hometown of Denham Springs.

She began her nursing career in pediatrics and then moved into obstetrics and gynecology at a Baton Rouge hospital. She worked there for five years (1970-1975) and during these years had two sons (1972 and 1973).

She was experiencing "burnout" after five years of full-time nursing (doing shift work, weekends, holidays).
She was looking for a job change and began teaching at Southeastern Louisiana University School of Nursing on the Baton Rouge Nursing Campus in June of 1975.

Realizing that she liked teaching but would need to get her Masters degree to stay in teaching, she began work on her Masters. She spent a year in residence at the University of Mississippi Medical Center in Jackson, Mississippi in 1977-1978 (leaving four year old and five year old sons with their daddy and grandparents!). She obtained a Masters degree in Nursing with a major in Maternal-Infant Nursing in May, 1978.

She returned to teaching at Southeastern and remains there today. She has completed her twelfth year there. She has tenure and holds the rank of assistant professor.

After being out of the Masters program for only one year, she began work in a doctoral program at LSU-BR in 1979. The major was Extension Education and the minor areas were Sociology and Management.

A year of residency was completed in 1984-1985 when she was granted a leave from her university.

After eight years of study, the author is completing the requirements for the degree, Doctor of Education!
VITA

and

PERSONAL INFORMATION

NAME: Peggy Ann Wax Harris

ADDRESS: 132 Wax Street, Denham Springs, Louisiana 70726

PHONE NUMBER: (504) 664-8407

PERSONAL INFORMATION:

Parents: Mr. and Mrs. Johney B. Wax
Spouse: Patrick F. Harris
Children: John Patrick Harris
         Jason Boyd Harris
Church Affiliation: First Baptist Church
                  Denham Springs, Louisiana

EMPLOYER:

Southeastern Louisiana University School of Nursing
Full-time faculty member

DATE OF APPOINTMENT AND RANK:

1975 - Assistant Professor

REGISTERED NURSE LICENSURE: Louisiana

EDUCATION:

Currently doctoral student at LSU-Baton Rouge
Passed the Qualifying Examination for Doctorate in
Extension Education in April, 1980. Has completed
all but dissertation.

M.N., 1978, The University of Mississippi Medical
Center, Jackson, Mississippi (Maternal-Infant Nursing
and Teaching)

B.S.N., 1970, Louisiana State University Medical
Center School of Nursing, New Orleans, Louisiana

High School, 1966 Valedictorian of Denham Springs
High School, Denham Springs, Louisiana
PREVIOUS EXPERIENCE:

June, 1975 to Present
Southeastern Louisiana University School of Nursing

April-May, 1975
Dixon Memorial Hospital, Denham Springs, Louisiana, Assistant Director of Nursing Service

August, 1970 to April, 1975
Woman's Hospital, Baton Rouge, Louisiana, Staff nurse and Team Leader, Obstetrics and Gynecology

June-August, 1970
Our Lady of the Lake Hospital, Baton Rouge, Louisiana, Staff nurse, Pediatrics

WRITING:


MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

American Nurses Association
Louisiana State Nurses Association
Baton Rouge District Nurses Association
Nurses Association of the American College of Obstetricians and Gynecologists

MEMBERSHIP IN OTHER ORGANIZATIONS:

Louisiana State University Alumni Federation
Louisiana State University School of Nursing Alumni Association
The University of Mississippi Alumni Association

HONORS:

Phi Kappa Phi, 1970
Outstanding Young Women of America, 1980
Sigma Theta Tau (LSU School of Nursing Charter member), 1982
Southeastern Louisiana University School of Nursing Honor Society
Who's Who in American Nursing, 1984
COMMUNITY SERVICE:

Assists Pilot Club of Denham Springs with Blood Pressure Screening Projects

Assists SLU Student Nurses Association with Blood Pressure Screening Projects

Assists with fund raising for the American Heart Association

Assists Church Youth Group with Community Outreach Projects

Instructor for American Red Cross, Preparation for Parenthood and Parenting classes

Volunteer worker with Council on Aging - Senior Citizens Health Fair

PROFESSIONAL AND PERSONAL DEVELOPMENT:

August, 1970 - April, 1975  Inservice Education Programs conducted by employer, Woman's Hospital, Baton Rouge

April, 1973  Nursing Audit Workshop, Baton Rouge

February, 1976  "The Nursing Process" workshop, Baton Rouge

April, 1976  "Physical Assessment" workshop, Hammond

June, 1976  "Infant Nutrition" Lecture, Baton Rouge

June, 1976  "Emergency Drugs" workshop, Baton Rouge

June, 1976  "Intravenous Drug Therapy and the Intravenous Admixture Program," workshop, Baton Rouge


August, 1976  "Drug Therapy in the Pediatric and Obstetric Patient," workshop, Baton Rouge

September, 1976  "Yes, The Nurse is a Teacher," workshop, Baton Rouge
November, 1976  Guest speaker for a session of the Louisiana Section Conference, Nurses Association of the American College of Obstetricians and Gynecologists, Baton Rouge

Received a certificate from the Louisiana State Nurses Association for achieving over thirty continuing education hours in 1976.

May, 1977  NAACOG Spring Conference, New Orleans

May, 1977  "Fluid and Electrolyte Balance," workshop, Hammond

June, 1977  "Care of the Patient with Respiratory Failure," Lecture, Baton Rouge

July, 1977  "Care of the Patient with Head Injuries," Lecture, Baton Rouge

August, 1977 - May, 1978  In graduate school full-time

September, 1978  Louisiana State Board of Nursing Regional Education Conference, New Orleans

February, 1979  "Treatment of the Patient with Diseased Oviducts," Lecture, Dr. Patrick Steptoe, Baton Rouge

May, 1979  NAACOG Spring Conference, New Orleans

May, 1979  "Update of Cancer," workshop, Baton Rouge

October, 1979  NAACOG District Conference, New Orleans

December, 1979  "Cardiovascular and Respiratory Complications of Pregnancy," workshop, Jackson, Mississippi

January 29- February 5, 1980  Certification, workshop for Preparation for Parenthood, American Red Cross, Baton Rouge
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<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>February 7, 1980</td>
<td>&quot;Neonatal Death,&quot; workshop, Woman's Hospital, Baton Rouge</td>
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<td>February 25, 1980</td>
<td>Louisiana State Board of Nursing Educational Conference, New Orleans</td>
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<td>March 31, 1980</td>
<td>&quot;Nursing Theory,&quot; workshop conducted by Dr. Imogene King, New Orleans</td>
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<td>May, 1980</td>
<td>NAACOG Spring Conference, Baton Rouge</td>
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<td>June 15-16, 1980</td>
<td>Conducted workshop for American Red Cross for high school home economic teachers on Parenting and Preparation for Parenthood, Livingston, Louisiana</td>
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<td>March 24, 1981</td>
<td>&quot;Writer's Seminar,&quot; Hammond</td>
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<td>May, 1981</td>
<td>&quot;Physical Assessment,&quot; workshop, Hammond</td>
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<td>May, 1981</td>
<td>NLN Convention, Las Vegas</td>
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<td>May, 1981</td>
<td>Conducted American Red Cross classes on Preparation for Parenthood</td>
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<td>September, 1981</td>
<td>Perinatal Conference, New Orleans</td>
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<tr>
<td>March, 1980 - September, 1981</td>
<td>Participant in a &quot;Headache Study&quot; conducted by LSU Department of Psychology</td>
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<tr>
<td>June, 1981</td>
<td>Army Tour for Nurse Educators, San Antonio</td>
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<td>March, 1983</td>
<td>Coordinator for workshop in &quot;Newborn Assessment,&quot; Baton Rouge</td>
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<td>April, 1983</td>
<td>VOTING Legislative Workshop for Nurses, Baton Rouge</td>
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<td>September, 1983</td>
<td>Ostomy workshop, Baton Rouge</td>
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<tr>
<td>June, 1984</td>
<td>ANA National Convention, New Orleans</td>
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<tr>
<td>August, 1984 - August, 1985</td>
<td>In graduate school full-time</td>
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<tr>
<td>June, 1985</td>
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<td>September, 1985</td>
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<td>November, 1985</td>
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<td>December, 1985</td>
<td>Seminar by a lawyer on &quot;Legal Aspects for Nurse Educators,&quot; Baton Rouge</td>
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<td>April, 1986</td>
<td>Louisiana Perinatal Association Conference, Baton Rouge</td>
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<td>Program on &quot;Adolescent Pregnancy,&quot; Woman's Hospital, Baton Rouge</td>
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<td>Dec., 1986</td>
<td>Program on &quot;Test Construction and Analysis,&quot; SLU, Baton Rouge</td>
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<td>Recertification in CPR by American Heart Association, Baton Rouge</td>
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<td>Jan., 1988</td>
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Candidate: Peggy Ann Wax Harris

Major Field: Extension Education

Title of Dissertation: Actual Knowledge, Perceived Knowledge and Interest in Selected Health Areas of Southeastern Louisiana University Freshmen, 1985

Approved:

[Signatures]

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination: December 14, 1987