What are Female University Students' Perceptions of Their Healthcare Needs?

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WHAT ARE FEMALE UNIVERSITY STUDENTS’ PERCEPTIONS OF THEIR HEALTHCARE NEEDS?

By

Kathleen K. Loose

A THESIS

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ABSTRACT

WHAT ARE FEMALE UNIVERSITY STUDENTS' PERCEPTIONS OF THEIR HEALTHCARE NEEDS?

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The purpose of this study was to gain a greater awareness of the self-perceived healthcare needs of female university students. An anonymous questionnaire was sent to a random sampling of the total female enrollment at a midwest university. A Healthcare Concern Score was tabulated on 230 completed questionnaires. There were 21 items identified as concerns. Students in the 17-24 year old age bracket had a higher healthcare concern score than individuals in the 24-53 year old age bracket. Orem's Self-care Deficit Theory (1991) was the conceptual framework for this study. The majority of identified concerns fell within the category of universal or developmental health care requisites.

Information gained from this research effort will assist in developing nursing interventions for this group of individuals.
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CHAPTER I
INTRODUCTION

There are more individuals attending college today than ever before. According to the U.S. Census Bureau (1997) there were 13,898,000 college students in the United States during the year 1993. Fifty-five percent were female attendees. Females between the age of 18-24 years make up 31% of the total college student population while 24% are women over 25 years of age. Interestingly, there was a 16% increase of female college students from 1973 to 1993. The greatest increase is that of women 25 years old or greater.

When one considers these statistics, it is unfortunate that there is such a lack of information regarding the healthcare needs of the female non-traditional students, those over 25 years old or with dependents. It is difficult to define who or what the non-traditional student is. Historically, a traditional student is described as being 18-24 years old, living on campus, and supported by parents (Lappin, 1992). The remainder of students are of varying ages and backgrounds with just as many varying responsibilities and obligations.

University students encounter numerous new experiences. Traditional age students are crossing the threshold into adulthood. The older college student is often trying to incorporate the new role of student into an already busy life. With the crossing-over into new life roles comes new responsibilities. One of these responsibilities is to make decisions regarding health and healthcare needs. University health centers, wellness centers, residence hall staff, counseling staff, and administrative staff assist the university student with individual health concerns. This assistance is accomplished with
implementation of clinical assessment and treatment, educational programming, activity programming, and counseling. The goal is to provide programs and services according to the needs of the student population.

Traditional age college students make the transition from family living to more independent living with a sense of invulnerability (Delene & Broqowicz, 1990). This is partly due to their developmental status as well as a lack of knowledge and awareness of potential health problems. It may be difficult for them to have a realistic view of what their healthcare needs will be during their academic tenure and beyond.

The older college student may attempt to accommodate many roles during the transition to college life. Developmental, situational, and health-illness transitions can occur during their efforts to obtain a higher level of education (Schumacher & Meleis, 1994). These transitions may impact the health status and healthcare needs of older students.

There have been numerous services and programs provided on university campuses. Are the services and programs developed meeting the true needs of university students or are they developed according to the speculation of what the students’ needs may be? It is important to acknowledge both the students’ perceived needs and the providers’ speculated needs of the student population. If the college student is viewed as a customer, are the customer’s needs being met in the provision of services? Patrick (1995) calls for clarity in the provision of healthcare services to the university population and the special concerns of this group of individuals.

There have been various studies done addressing health concerns of university students. Many are inclusive of male and female students who are 18-24 years old. The
research instruments used have been distributed to students who have majors in health-related fields (Gold, 1995). There are limited studies specific to the self-perceived healthcare needs of all female university students.

Gold (1995), in her report to the Commission on Women's Health on the health of college women, indicated there are studies addressing the health concerns of college-aged women but a very limited number of studies that actually address the healthcare needs of women attending college. This is unfortunate, as female university students are a prime population to impact the future health of families and communities. Gold addressed college women's health issues, reasons for intervention, review of approaches, and goals and guidelines for future program implementation. Issues of concern identified by college women were access to health care, pregnancy, sexually transmitted diseases, abuse of alcohol, tobacco, and illicit drugs, depression, suicide, body image, eating disorders, nutrition, exercise, and violence. She found female university students receptive to preventive health interventions. She cautioned the reader of the special demands of the university student—increased academic demands, work, new social challenges, inflexibility regarding illness, and time management.

Boehm, Selves, Raleigh, Ronis, Butler, and Jacobs (1993) studied students' perceptions of vulnerability and susceptibility to health problems and the student's interest in receiving help and information about health maintenance. This effort included male and female participants 18-22 years old. Findings identified 18 health concerns of college students. Fifty percent of students surveyed were interested in receiving health help or information regarding how to stay healthy, exercise, nutrition, stress management, good health habits, how to stay healthy in middle years, self-care for minor illness, autoimmune
deficiency syndrome, sexually transmitted disease, and birth control. Information obtained from the research effort was used for program development.

The purpose of this study was to gain a greater awareness of the self-perceived healthcare needs of female university students of all ages. This was accomplished by asking the question “what are female university students’ perception of their healthcare needs?” The theoretical perspective of this study was based on Dorothea Orem’s Self-Care Deficit Theory of Nursing (1991). The information gained from this effort provides a broad basis for the planning of holistic healthcare for female university students. The knowledge gained can be utilized to enhance services and program development for this selected population. This, in turn, will impact the health of families and communities in the future.
CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

An individual crossing the threshold into the university community for academic study has many transitions to make. She is confronted with many developmental tasks and responsibilities that impact her ability to care for herself optimally. The nursing professional has an opportunity to aid the university student in acquiring self-care abilities. Orem’s Self-care Deficit Theory of Nursing (1991) provides a theoretical framework to guide the nurse in facilitating the care of university students.

Orem’s Self-care Deficit Theory of Nursing

Orem’s development of the self-care deficit theory of nursing is based on five premises relating to the characteristics of human beings. In summary, they are: (a) human beings need continuous input to remain alive, (b) they have the power to act deliberately, (c) human beings often lack in the performance of caring for self, (d) human agency evolves by increasing awareness of and communicating to others needs of self and others, (e) structured relationships can be established to provide care to those requiring care of self or others (Orem, 1991). The individual’s goal within Orem’s framework is to acquire optimal self-care abilities. The nursing goal is to assist the individual in his/her goal acquisition.

Traditional university students leave parents and pediatrician and for the first time are confronted with the primary responsibility of their own health. Nontraditional university students bring with them many life experiences and responsibilities which,
added to their responsibility of being students, have the potential of impacting their ability to optimally care for themselves or family. Orem's theory provides a strong foundation for the development of a relationship between nurse and client to aid the student client in developing optimal self-care.

Orem identified three interrelated theories within the model. They are the theories of self-care, self-care deficit, and nursing systems (Hartweg, 1991), (see Figure 1).

**Self-care**


**Self-care.** Self-care is purposeful. It is sequential and enhances human structural integrity, function, and development (Orem, 1991).

Self-care is action of mature and maturing persons who have developed the capabilities to take care of themselves in their environmental situations. Persons who engage in self-care have the requisite action capabilities—the agency or power to act deliberately to regulate factors that affect their own functioning and development (Orem, 1991, p. 177).

Self-care Requisites. Self-care requisites are "expressions of action to be performed by or for individuals in the interest of controlling human and environmental factors that affect human function and development...they are the reasons for doing actions that constitute self-care" (Orem, 1991, p. 121). Orem has identified three categories of self-care requisites: Universal, Developmental, and Health-Deviation. "Universal self-care requisites are those of all human beings throughout all stages of the life cycle, and can be
Figure 1. Self-care Deficit Theory of Nursing. <, deficit relationship. R, relationship. From Nursing Concepts in Practice (p.64) by D. Orem, 1991, St. Louis, MO: Mosby. Adapted with permission.
adjusted for age, environment and other factors" (Hartweg, 1991, p. 21). The requisites are essential for human bodily function, safety and socialization. Developmental self-care requisites are maturational and situational. They require conditions that promote development throughout the life cycle. Health-deviation self-care requisites are related to illness, injury, pathology, and require medical diagnosis or treatment (Hartweg, 1991).

**Therapeutic Self-care Demand.** Therapeutic self-care demand is the “summation of measures of self-care demand required at moments in time and for some time duration by individuals in some location to meet self-care requisites particularized for individuals in relation to their conditions and circumstances” (Orem, 1991, p. 65). Orem identified ten basic conditioning factors that influence self-care demand. They can be patterns of living, orientation, family and environmental factors. They are impacted by primary, secondary, and tertiary prevention measures. This, in turn, affects the individual’s self-care agency. “Self-care agency is the power of individuals to engage in self-care and capability for self-care” (Hartweg, 1991, p. 17). It is the ability to maintain and promote integrity and well being of human function and development.

**Self-care Deficit**

The theory of self-care deficit addresses the relationship between self-care agency and therapeutic self-care demand of individuals. There is a self-care deficit when the individual is unable to meet the components of the care demands. Thus, there is a need to enhance the individual’s self-care agency. Self-care deficit legitimizes the existence of nursing. Without a care deficit there is no role for nursing. The nurse must know the self-care requisites before she can assess the self-care deficits of an individual or group in order to provide intervention to enhance self-care agency.
Nursing Systems

The theory of nursing systems consists of three types: wholly compensatory, partly compensatory, and supportive-educative. A nursing system is defined as “the totality of the actions and interactions of nurses and patients and/or family in a nursing situation at a point in time” (Hartweg, 1991, p. 45). The self-care demands and the degree of self-care agency the individual or patient exhibits dictates the type of nursing system instituted.

Orem (1991) identified five methods applicable to the provision of care. They are: acting for or doing for another, guiding another, supporting another, providing for a developmental environment, and teaching another. It is through these avenues that nursing can assess the needs of female university students and provide intervention to increase university students' desires and abilities to gain higher levels of health and well-being.

Orem's Self-care Deficit Theory of Nursing provides the framework for evaluating the perceived healthcare needs of female university students. The theory also provides a foundation for the development of nursing intervention to enhance female university students' self-care agency (see Figure 2). The nursing systems applicable to this study include the partly compensatory and supportive/educative. For example, for the student who has a high level of stress in her life, the nurse could provide a stable, relaxed, safe environment (partly compensatory; doing for another) while instructing the student on effective stress management skills (supportive/educative; teaching another).

Perceived healthcare needs include universal, developmental and health-deviation requisites. For example, if the student does not receive enough rest, a universal requisite, she may not have the physical or emotional stamina to manage the stress in her life, which
Figure 2. Female university students' perceptions of healthcare needs using Orem's Self-care Deficit Theory of Nursing. <, deficit relationship. R, relationship, Italic, study variables. From Nursing Concepts in Practice (p.64) by D. Orem, 1991, St. Louis, MO: Mosby. Adapted with permission.
in turn, could lead to illness. Illness is considered a health deviation requisite. The level of stress for a university student can be impacted by too little or too much socialization, which is considered a developmental requisite.

**Research Using the Self-Care Deficit Theory of Nursing**

Orem's self-care deficit theory of nursing has been well established in nursing literature. It is applicable in numerous settings and client populations. Simmons (1990) and Denyes (1988) have utilized the self-care deficit theory of nursing to address health promotion. Simmons incorporated it with Pender's Health Promotion Model (1987) and the Interaction Model of Client Health Behavior developed by Cox (1982) to propose the Health-Promoting Self-Care System Model. Simmon's work is intended to explain factors influencing therapeutic self-care demand, elements of self-care agency, performance of self-care, and health outcome indicator (p. 1163).

Denyes' (1988) empirical efforts indicate that health is promoted as self-care abilities and self-care is enhanced. An aggregate sample of 369 adolescents was provided self-reporting instruments to evaluate general health status, self-care agency, and self-care. Instrument development was done by the researcher and included Denyes Health Status Instrument, Denyes Self-Care Agency Instrument, and the Denyes Self-Care Practice Instrument. Basic conditioning factors (age, gender, grade level, birth order, number of siblings) and measurement of presence or absence of health problems were evaluated. Self-care and self-care agency were not significant predictors of health problems, however, they were predictors of general health state. This supports the use of Orem's model in health promotion.

Fernsler (1996) implemented a descriptive study to compare patient and nurse
perceptions of patient’s self-care deficits in relation to chemotherapy. Thirty patients and their assigned registered nurses were asked to participate in an open-ended, semistructured interview schedule. Responses were classified according to universal self-care requisites. Patients, more than nurses, perceived more self-care deficit regarding physical side effects of chemotherapy. Nurses perceived more deficits in relation to psychosocial concerns than the patients did. The results indicate that nursing did not have the same perception of the patients’ care needs as the patients did.

Self-care practices among young adult married women were explored by Woods (1985). Self-care activities were recognized as universal or illness-related. Ninety-six women maintained a health diary for three weeks. Symptoms and self-care activities were recorded. This study substantiated that women use a variety of self-care measures. The most often employed illness related self-care activities were the use of over-the-counter medications and change in activity. Vitamins and contraceptive measures were the most common universal self-care measures.

Kirkpatrick, Brewer, and Stocks (1990) implemented a quasi-experimental study using a pre-test, post-test design to evaluate the efficacy of self-care measures for premenstrual syndrome (PMS). Experimental and control groups were established and the 84 participants assigned. Experimental group participants were informed using an educational series regarding premenstrual syndrome and then administered the assessment questionnaire. The control group was administered the assessment questionnaire. The Abraham’s Symptomatology Questionnaire, having 13 open-ended questions and 21 forced-choice questions, was used to measure the severity of signs and symptoms the participants associated with PMS. The self-care practices were evaluated by Kirkpatrick’s
Grady’s Self-Care Checklist. A t-test was used to compare the means of the experimental and control groups. The t-test results suggested that educational intervention increased the self-care measures and decreased the severity of symptoms compared to the control groups. This is an example of using the supportive-educative nursing system within Orem’s theory.

The relationship between self-concept and self-care practices of healthy adolescents was addressed by the work of McCaleb and Edgil (1994). A descriptive study of 160 adolescents, 15 and 16 years old, indicated that these adolescents engaged in self-care practices. An investigator-developed profile was distributed to the participants to determine basic conditioning factors including age, gender, developmental status, health state, family characteristics, and sociocultural characteristics. An expert panel including theorist, Dorothea Orem, established validity of the profile. The Piers-Harris Self-Concept Scale, an 80-item self-report questionnaire, and Denyes Self-Care Practice Instrument, used to measure general self-care actions and universal self-care requisites, were also administered. The total self-care practice score of the group on the McCaleb and Edgil instrument was within a range of 0% to 100% with a mean of 62.0. Nutrition was the lowest scoring self-care practice and the highest scoring self-care practice was safety. The Piers-Harris self-concept scale was computed to have a mean score of 60.0 for this sample. Pearson’s correlation coefficient resulted in a statistically significant relationship between self-concept and self-care practice, which establishes concurrent validity of the McCaleb-Edgil instrument. The results support the thought that sociocultural influences are important predictors of self-care agency development and self-care practices. This was accomplished by using zero-order correlation coefficients and stepwise multiple regression
analysis finding a significance of four variables: self-concepts, race, church attendance, and participation in the paid lunch program in explaining self-care agency and practice.

Review of Literature

Various efforts toward understanding university students’ healthcare concerns have been made though few are specific to the healthcare needs of female university students. Information regarding the healthcare needs of non-traditional students is lacking.

The director of student health services of a midwest university gave an administrator’s point of view. Grace (1997) acknowledged the changes affecting the delivery of health care in the university setting. Students are older, with the average age of the college student being 26 years old, and are financially independent, and underinsured.

There is a greater challenge in meeting the health-related needs of these older students due to changes in healthcare delivery and the complexities represented by the student population. Students have a diversity of needs from sexually transmitted diseases (STDs), eating disorders, and alcohol use to midlife stress, divorce counsel, menopause, and cancer. Alcohol is rated the number one health problem on college campuses. Sexual health issues, stress management, injury, nutrition, and physical activity are recognized as important issues. Grace indicated there is a greater need to address violence, sexual assault, and chronic disease prevention and management. He challenged college health professionals to discard the stereotype of the young, robust, healthy college student, and acknowledge that students today are older with more serious, chronic health problems.

Approaches for meeting students’ health needs were suggested.

Students’ Perceptions of Need

Fatigue, obesity, and stress are identified as health concerns of female students
Specific groups of women on college campuses have special health concerns. Lynch (1993) speaks to the fear of disclosure lesbians have. The author provides constructive ways for healthcare providers in which to develop rapport with lesbians. Langford (1995) discusses the health needs of female college athletes. Health concerns of this population include disordered eating, amenorrhea, osteoporosis, stress management, nutritional demands, allergies, asthma, and musculoskeletal injuries. Langford describes a program approach instituted at a southwestern university to address these issues.

University students' healthcare needs, attitudes, and behaviors have been surveyed (Delene & Brogowicz, 1990; Smiley, Johannessen, Marsh, & Collins, 1992; Wiley et al. 1996). Student populations from a singular university setting and cross-institutional settings were selected (Delene & Brogowicz, 1990). The majority of the sample (n=1,050) were undergraduates and consisted of male and female participants. According to the eight page self-administered survey, students are most concerned with issues related to body image. This is inclusive of food, weight, and physical activity. This was determined by using a variety of cross-tabulations and multivariate analyses. Other areas of concern were anxiety, tension or stress, safety, sexual health, and STDs, though one study (Smiley et al.) indicated that 85% of the students surveyed did not worry about STDs.

Boehm et al. (1993) evaluated students' perceptions of vulnerability/susceptibility and desire for health information. A self-administered questionnaire was distributed to 364 students, ages 18-22 years old, at two midwest universities. The authors expound on the development of the Vulnerability/Susceptibility Scale and the Information Scale. Fifty percent of the students indicated they would be interested in receiving help or information
on the following topics: how to stay healthy now, exercise, nutrition, stress management, good health habits, how to stay healthy in middle years, self-care for minor illness, acquired immune deficiency syndrome (AIDS), STDs, and birth control.

In a technical report prepared for the Commonwealth Fund Commission on Women's Health, Gold (1995) summarized a literature review of major health related issues for university female students. She found that most studies were limited to substance abuse, sexual practices, and lacked generality. She notes that practice of preventive measures and self-care are issues for female students, as well as the specific health concerns identified. The major health concern was having access to care for the following issues: reproductive health, substance use, mental health, and violence. This information was gleaned from 18-24 year old females enrolled in a residential college or university with varying socio-economic and cultural backgrounds.

Related to health concerns of non-traditional students is the work of Degenhart-Leskoskey (1983). Health education, self-care, infant physical care, infant medical and mother-infant psychosocial needs of adolescent (N=22) and non-adolescent mothers (N=30) were compared. Adolescent mothers had greater informational needs for infant medical care and mother-infant psychosocial care. Non-adolescent mothers had greater educational needs regarding their own physical care.

Health Status

Sax (1997) reviewed the health trends of university freshmen over thirty consecutive years, 1966-1995. A subsample was taken from the annual surveys distributed to incoming freshmen during the fall semester. Survey information was acquired from the Cooperative Institute Research Program. Alcohol and other drug use, physical health,
psychological health, and sexual attitudes were reviewed. Results indicated gender and institutional differences. A greater number of students in two year colleges had health-related problems than those entering a four year institution. The self-rating of overall physical health dropped from 61.6% in 1966 to 52.4% in 1995, with females experiencing less physical health than males. Between 1985-1995 there was a 14.6% increase in cigarette smoking with females smoking more than males. There was a steady decline in confidence in emotional health and a 10% increase in students’ psychological stress level between 1985-1995. According to this study, the trend of drinking beer has declined since 1982. A limitation of this study is that it focused on first semester college freshmen leaving a void in information regarding the general university student population.

Guyton et al. (1989) provided a summary of a hearing at the 1987 American College Health Association meeting. Recommendations on college health for the National Health Objectives for the Year 2000 were included. Fifty-eight medical professionals, health educators, and residence staff met and identified five areas of greatest need for the health of college students. Sexual health concerns, alcohol and other drug use, mental health, food as it relates to nutrition and weight management, and financial resources were ranked respectively in terms of need. Immunizations, accident/injury, and prevention of chronic disease were also considered.

Tyden, Bjorkelund, Dilend, and Olsson (1996) and Strader and Beaman (1991) studied knowledge of sexually transmitted diseases and sexual behaviors. Tyden and her co-authors did a five year follow-up study (1989-1995) of female students presenting to a student health center and a random postal survey of female students. Their focus was to ascertain changes in sexual behaviors and attitude relating to the risk of spread of STDs.
Questionnaires were distributed to 275 consecutive students seeking services at a student health center and 200 randomly selected female university students were mailed questionnaires. This was first done in 1989 and repeated in 1994. The mean age of participants was 23 years old. They found a 40% to 60% increase in the rate of condom use for individuals who change sexual partners and for those experiencing sexual intercourse for the first time. The average age of intercourse was consistent at 17.6 years. The average number of lifetime sexual partners was three to four. The authors felt that sexual behavior can be influenced by what they described as intensified information activities over a period of time.

Failure of contraception often leads to an unplanned pregnancy resulting in a decision-making crisis for a woman. Tentoni (1995) recognized that many women who choose to terminate a pregnancy do not have a negative sequela. However, some do have feelings of grief, guilt, and shame. He described his efforts as a therapist counseling five women regarding their pregnancy termination and their outcome. He encouraged college health providers to be creative in their interventions to ease the responses to elective pregnancy terminations.

Ruda, Bourcier, and Skiff (1992), Budden (1995), and Cope (1992) investigated breast care issues. Budden’s descriptive study assessed the knowledge and practice of breast self-examination (BSE) of young women less than 45 years old (N=65) who were second year nursing students. Results of the survey indicated that 27% of the participants performed BSE on a regular basis. The reason most often cited for not performing BSE was forgetting. Interestingly, there was no statistically significant difference in practicing BSE between women with a known family history of breast cancer and those without a
positive breast cancer family history.

A comparison study of nursing (N=59) and non-nursing (N=55) students' knowledge of breast cancer, perceived susceptibility to breast cancer, and perceived benefit of BSE was done by Ruda, Bourcer, and Skiff (1992). There was a statistically significant difference in knowledge between the two groups. Nursing students were found to be more knowledgeable regarding BSE and breast cancer but this did not impact their practice of BSE over that of non-nursing students. Both groups viewed BSE to be highly beneficial but again, there was not significant difference in the practice of BSE. Nursing students gave reasons for not practicing BSE as "too busy," "rather not think about breast cancer," or forgetting. The reasons non-nursing students identified for not practicing BSE were lack of skill and embarrassment. Twenty-nine of the nursing students who had provided care to an individual with breast cancer showed increased frequency of BSE over those who had not provided such care.

Alcohol abuse is known to be a significant health concern on college and university campuses. Marion, Fuller, Johnson, Michels, and Diniz (1996) explored drinking problems of nursing students. Ninety-two percent of the sample population (N=313) were females, 17-57 years old. Using the Michigan Alcoholism Screening Test and the Children of Alcoholics Screening Test, they found 21.5% of the subjects to be probably alcoholic or alcoholic. One-third of the nursing students were found to be at risk for drinking problems. This presents concern regarding the profession's image and also the ability to learn and provide safe care. It would behoove educators to be alert to drinking habits of their students and peers.

Gleason (1994) used the framework of relational theory in her discussion of
women who use alcohol. She takes into account normal and abnormal psychological development of women. She proposes that alcohol use—especially on college campuses—is a way of being with others and facilitating relationship. It can also hamper relationship. Alcohol not only can lead to abuse but can be used as a coping mechanism following abuse. In this sense, alcohol is often used as a self-medication to impact stress, coping, denial, losses, shame, anger, sexual dysfunction and consequences of sexual assault. The author encourages college health-care providers to be alert to risk factors influencing alcohol abuse in women—family alcoholism, a history of an eating disorder or lesbian sexual identity. Understanding relational issues and recognizing risk factors associated with alcohol abuse among women will provide an increased ability to identify and support women using alcohol.

It has been reported that violence on campus is becoming an increasingly greater health and safety issue (Grace, 1997; Gold, 1995; Leidig, 1992). Liedig reviews the myths, beliefs, and assumptions that underlie links to violence against women. She identifies a continuum of violent acts against women and discusses psychological and physical consequences of violence in our society. She encourages colleges and universities to provide primary, secondary, and tertiary prevention measure to assist women who are at risk for experiencing a violent act against them. Urbanic (1992) incorporates Orem's nursing systems theory when she discusses the concept of empowerment as a basis for intervention to use with adult female incest survivors. She encourages a collaborative model of helping women turn from denial, blame, or minimizing the incest experience, to one that focuses on support, increasing the woman's self-worth, mastery, competence, and control.
Lappin (1992) identifies issues and problems of non-traditional students in general. Academic stress, women's health issues beyond contraception and STD prevention and treatment, families, health status—prevention and/or management of chronic diseases, disabilities, psychological stress, isolation, and geographic mobility are some of the issues confronting non-traditional students. Mundt (1996) did a systematic sampling of students (N=600) at an urban university. Most students were older, working full-time with a part-time student status, had family obligations, and commuted to campus. Mundt assessed what types of services the students believed to be available at the Student Health Service (SHS). She also assessed health status, health insurance status, and most important health concerns. Fifty-eight percent of the females used the SHS and 45% of the males visited the SHS. Good or excellent health status was reported by 93% of the respondents. Nineteen percent did not have health insurance. Seventy percent of individuals without insurance were more likely to use the SHS. Health concerns identified were diet, nutrition, exercise, weight reduction, stress reduction, and leading a healthy life.

Information Needs

Ford and Goode (1994) asked 224 African American college students attending a required health education class what health issues they thought students needed to know more about. From a possible 18 health related issues, the five areas of most concern to the students were sexually transmitted diseases, contraception, date rape, stress management, and male/female relationships.

Interest in developing health programs to better meet the needs of diverse cultural groups led McCaughran (1995) to survey 870 students at a Midwestern university. The strata consisted of African American, Asian, Latino and White students. This descriptive
study indicated that there is a variation in knowledge of health issues and practices related to health concerns among cultural groups. African Americans are more knowledgeable about autoimmune deficiency syndrome (AIDS) than the three other groups. Asians consume less alcoholic beverages. Latinos are the least knowledgeable regarding STDs. The research suggested that the provision of healthcare and health information be tailored to ethnicity and varying belief systems.

Self-care information needs relating to contraceptive use was explored by Hawkins, Fahey, Kurien, Roberto, and Simons (1981). A pretest/posttest questionnaire was distributed to female resident students seeking care at a women's health clinic or who attended a required educational session in order to utilize the services at that particular clinic. The researchers examined health care information needs and contraceptive use, and knowledge of the participants. Some form of contraception was used by 82.6% of the sample (n=528). Contraceptive failure resulting in pregnancy was reported by 64 of the respondents who used contraceptives. The majority of respondents (n=508) indicated a need for more information regarding the correct usage of various contraceptive methods. The authors acknowledged discrepancies between knowledge and practice. They recommend a shift from education identifying methods of birth control to that addressing the proper use of contraceptive methods to enhance self-care ability in the prevention of pregnancy.

Summary and Implications for Study

In summary, there are few studies which are specific to the overall healthcare needs of female university students. As Gold (1995) indicated, the majority of the research efforts relating to female university students address issues relating to sexual
health practices or substance abuse. There is a lack of generability noted throughout the review of literature. Many studies are limited to specific groups of students: ethnic, age, academic class status, and academic courses are but a few of the selected samplings.

Grace (1997) recognizes the increased challenges of meeting the healthcare needs of university students. These challenges are a result of changes in healthcare delivery and the increasing complexities of the student population. Diverse populations create diverse healthcare needs.

Using Orem's theory (1991) for direction, the nurse should assess a student's self-care requisites before identifying self-care deficits. Femsler's (1986) also identified differences in perceived healthcare needs between patients and their professional caregivers. The gap between female university students' perceived needs and that by healthcare providers, educators, and administrators needs to be closed. According to Orem, the individual's goal is to acquire optimal self-care abilities. Nursing's goal is to assist the female university student in goal acquisition, or in other words, assist the student in the development and acquisition of self-care agency.

More information is needed as college health services move away from a medical model and closer to a biopsychosocial model for the provision of healthcare. Patrick (1995) recognizes the need for better knowing our clients/patients/customers in order to appropriately meet their needs. The provision of care, be it medical/nursing care, educational programming, or counseling, will impact the student's ability to care for self if the interventions are directed toward the student's perceived needs.
Research Question

This research identified the perceived healthcare needs of female university students of all ages. The research question was: "What are female university students’ perceptions of their healthcare needs?" Findings provide a foundation for university educators, administrators, and healthcare providers to develop services for this population.

Definition of Terms

Female university student refers to any female registered as a student at a university or college.

Perceived health care needs. Self-care requisite is an expression “...of actions to be performed by or for individuals in the interest of controlling human and environmental factors that affect human functioning and human development” (Orem, 1991, p. 121). For the purpose of this study, self-care requisite(s) is the student’s perceived healthcare need(s). Self-care agency is the ability to engage in self-care practices. Orem (1991) defines self-care as “the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being” (p. 117). Self-care agency in this study is the student’s ability to recognize and identify her healthcare need(s).
CHAPTER 3

METHODS

There are a limited number of research studies that address the healthcare needs of female university students. The majority of research efforts have focused on sexual health behaviors and/or substance abuse issues, mainly alcohol. The purpose of this study was to provide information about the self-perceived healthcare needs of female university students. The data from this research will be utilized to develop interventions and services for this population.

Design

A descriptive design was used to identify the perceived healthcare needs of female university students. A computer generated simple random sampling of the entire female student enrollment of a midwestern university was surveyed. Every twentieth female student was chosen for the survey. The effort was accomplished by eliciting the assistance of the registrar's office and the dean of students office. Students chosen received a cover letter and questionnaire at their local address via first class mail. The questionnaires were anonymous to encourage honesty and protect the student's confidentiality.

Sample

The research questionnaire was distributed to 492 female students enrolled at the university during the fall semester, 1998. Four questionnaires were returned due to no forwarding address. A total of 243 questionnaires were returned to the researcher. This was a 49.8% return rate of the 488 delivered questionnaires.

The age of participants ranged from 17-53 years old with the mean age of 26.1 years (SD=9.55). Sixty-one percent of the sample was 17-24 years old with 38.3% being
25-53 years old. The distribution across class ranks included freshmen (20.2%), sophomores (11.1%), juniors (16.9%), seniors (23.5%), and graduate students (22.6%). Some individuals (5.8%) designated "other" for class rank. The majority (60.9%) was enrolled full-time with part-time (37.4%), and 1.2% were guest students. Approximately 18% lived on campus with the remainder living off campus by themselves (10.7%), with family (51.9%) or with friends (19.3%). Miles commuted to class ranged from 1-350 miles.

The majority of students had never married (64.6%), 30% were married, 4.9% were divorced or separated. Approximately 28% of the students had at least one dependent. Two students (0.8%) identified themselves as international students; 90.5% of the students were White with 4.5% Black, 1.2% Hispanic, 1.2% Asian-Pacific, 0.8% Native American, and 1.2% Other. The majority of the students (76.1%) were employed. The median household income ranged from $25,001 - $50,000 per year. Two hundred twenty-six (93%) had health insurance coverage. There were many academic majors represented. Educational majors represented 19.8% of the sample, with nursing majors at 10.3%, psychology majors at 6.6%, business majors included 5.3%, and 4.1% were social work majors. The remainder was distributed among 42 areas of study. The demographics are summarized in Table 1.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>(M=26.1; SD 9.5)</td>
<td></td>
</tr>
<tr>
<td>17-24</td>
<td>61</td>
</tr>
<tr>
<td>25-33</td>
<td>38.3</td>
</tr>
<tr>
<td>Class standing</td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>20.2</td>
</tr>
<tr>
<td>Sophomore</td>
<td>11.1</td>
</tr>
<tr>
<td>Junior</td>
<td>16.9</td>
</tr>
<tr>
<td>Senior</td>
<td>23.5</td>
</tr>
<tr>
<td>Graduate</td>
<td>22.6</td>
</tr>
<tr>
<td>Other</td>
<td>5.8</td>
</tr>
<tr>
<td>Enrollment status</td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>60.9</td>
</tr>
<tr>
<td>Part time</td>
<td>37.4</td>
</tr>
<tr>
<td>Guest</td>
<td>1.2</td>
</tr>
<tr>
<td>Current Residence</td>
<td></td>
</tr>
<tr>
<td>On-campus</td>
<td>17.7</td>
</tr>
<tr>
<td>Off-campus alone</td>
<td>10.7</td>
</tr>
<tr>
<td>Off-campus with family</td>
<td>51.9</td>
</tr>
<tr>
<td>Off-campus with friends</td>
<td>19.3</td>
</tr>
<tr>
<td></td>
<td>0.4</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>64.6</td>
</tr>
<tr>
<td>Married</td>
<td>30.0</td>
</tr>
<tr>
<td>Separated</td>
<td>0.4</td>
</tr>
<tr>
<td>Divorced</td>
<td>4.9</td>
</tr>
<tr>
<td>Dependents</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>27.6</td>
</tr>
<tr>
<td>No</td>
<td>72.0</td>
</tr>
<tr>
<td></td>
<td>0.4</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>90.5</td>
</tr>
<tr>
<td>Black</td>
<td>4.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>1.2</td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>1.2</td>
</tr>
<tr>
<td>Employed</td>
<td></td>
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<tr>
<td>Yes</td>
<td>76.1</td>
</tr>
<tr>
<td>No</td>
<td>23.9</td>
</tr>
<tr>
<td>Annual household income</td>
<td></td>
</tr>
<tr>
<td>&lt;$10,000</td>
<td>23.0</td>
</tr>
<tr>
<td>$10,001-$25,000</td>
<td>13.2</td>
</tr>
<tr>
<td>$25,001-$50,000</td>
<td>25.9</td>
</tr>
<tr>
<td>$50,001-$75,000</td>
<td>20.6</td>
</tr>
<tr>
<td>&gt;$75,000</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>5.3</td>
</tr>
<tr>
<td>Health insurance</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>93.0</td>
</tr>
<tr>
<td>No</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
</tr>
</tbody>
</table>

Note: * Missing information.
Students rated their health as poor (0.4%), fair (9.1%), good (52.7%), and excellent (37.4%). The majority of students (73.2%) sought professional healthcare 0 to 3 times a year; 61.7% requested or sought health related information 0 to 3 times a year.

Instrument

The investigator designed the instrument because no existing tool could be found to adequately address the research question. The development of the instrument was based on the review of literature, the professional experience of the researcher, and portions of the questionnaire developed by Boehm et al. (1993).

The first portion of the questionnaire elicited information regarding demographics. In Orem’s work (1991), this information would be considered basic conditioning factors. This information included age, residence, academic class standing, enrollment status, marital status, dependents, socioeconomic factors, ethnicity, major area of study, and availability of health insurance.

The second portion of the questionnaire addressed the self-perceived healthcare needs of the population. The questionnaire requested the student to rate each of the forty-seven concerns using a five point semantic differential scale to determine degree of concern from “not at all concerned” = 1 to “extremely concerned” = 5. Statements were designed to represent the self-care requisites (universal, developmental, health-deviations) identified by Orem (1991). Space was provided for subjects to identify other concerns that were not listed (see Appendix D).

The questionnaire was submitted to an expert panel to determine content validity. The panel consisted of a director of university health services, a manager of health advocacy services for a university, and a nurse practitioner experienced in caring for
student populations. A pilot study of the questionnaire was conducted. The questionnaire was distributed to ten undergraduate and graduate female students. Changes were made to improve clarity of the instructions for the completion of the questionnaire and to incorporate additional concerns identified by the expert panel and/or pilot study participants. Limitations of the questionnaire format include social desirability response set bias, extreme response bias, and acquiescence response bias. The subjects were reassured that there were no right or wrong answers to minimize these potential biases. A Cronbach's Alpha of .92 demonstrated the reliability of the healthcare concern scale.

Procedure

Upon approval of the Human Research Review Committee at Grand Valley State University, a cover letter and an anonymous questionnaire with a first class stamped return addressed envelope were mailed to the study participants. The subjects were asked to complete the questionnaire and return it in the envelope addressed to the investigator's committee chairperson at Kirkhof School of Nursing, Grand Valley State University, Allendale, MI 49401. The receipt of the completed questionnaire was the subject's implied consent for study participation. A follow-up postcard reminder was sent to all participants two weeks following the initial mailing. The study was terminated two weeks following the mailing of the reminder postcard.

The investigator acknowledged the potential for increased stress and anxiety in the students at the onset of a new academic term or semester. Therefore, the third or fourth week of fall semester, 1998, was chosen for data collection. The timeframe also preceded mid-term exams.

This research benefited the subjects in two ways. First, it gave them the
opportunity to evaluate their personal healthcare needs and develop a keener awareness of their health issues. Secondly, collectively, the information acquired provides a foundation for the development of quality health services and programming for the university population.

Human Subjects Protection

The Human Research Review Committee at Grand Valley State University granted permission to proceed with this study. The participants were informed of the purpose of the study. Confidentiality was maintained as there was not a student identifier included in the instrument. Participation was on a voluntary basis. Completion and return of the questionnaire to the researcher served as consent to participate in the research study. There were no known risks associated with participation in the study. The students were informed that their participation would not have an influence on their student status at the university.
CHAPTER 4
DATA ANALYSIS

The purpose of this study was to gain a greater awareness of the self-perceived healthcare needs of female university students. Questionnaires distributed to female students enrolled for a given semester at a midwestern university were analyzed (N=230). The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. The level of statistical significance was set at 0.05.

Healthcare Concerns

Participants were asked to rate 47 healthcare concerns. A five point semantic differential scale was used to determine the degree of concern from “not at all concerned” = 1 to “extremely concerned” = 5. Based on the range of 1-5, it was determined that any rating equal to three or more was an identified concern. The item was considered a concern if the statistical mean was three or more. Some questionnaires were incomplete, therefore, the final sample for determining the healthcare concern score was 230 (N=230). The possible Healthcare Concern Total Score range for the instrument was 47-235. The actual scores ranged from 70-225 with a mean of 132.2 (SD=26.8).

Overall, there were 21 items considered to be of concern to the participants. “Too much stress in my life” was ranked as the number one concern with a mean of 3.96 (SD=1.02). “Getting a physical exam” was ranked as the least of the identified concerns with a mean of 3.01 (SD=1.30) (see Table 2).
Table 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much stress in my life</td>
<td>3.96</td>
<td>1.02</td>
</tr>
<tr>
<td>Healthy environment</td>
<td>3.95</td>
<td>0.92</td>
</tr>
<tr>
<td>Academic performance</td>
<td>3.92</td>
<td>1.14</td>
</tr>
<tr>
<td>Getting enough rest</td>
<td>3.86</td>
<td>1.04</td>
</tr>
<tr>
<td>Accessing good healthcare</td>
<td>3.67</td>
<td>1.19</td>
</tr>
<tr>
<td>Getting cancer</td>
<td>3.63</td>
<td>1.26</td>
</tr>
<tr>
<td>Preventing chronic disease</td>
<td>3.63</td>
<td>1.09</td>
</tr>
<tr>
<td>Not getting enough exercise</td>
<td>3.56</td>
<td>1.17</td>
</tr>
<tr>
<td>Eating habits</td>
<td>3.50</td>
<td>1.10</td>
</tr>
<tr>
<td>Changes in my health</td>
<td>3.50</td>
<td>1.11</td>
</tr>
<tr>
<td>My nutrition</td>
<td>3.48</td>
<td>1.02</td>
</tr>
<tr>
<td>Major illnesses</td>
<td>3.47</td>
<td>1.12</td>
</tr>
<tr>
<td>Body image</td>
<td>3.41</td>
<td>1.18</td>
</tr>
<tr>
<td>Family issues/relationships</td>
<td>3.38</td>
<td>1.26</td>
</tr>
<tr>
<td>Finances</td>
<td>3.35</td>
<td>1.25</td>
</tr>
<tr>
<td>My sleeping habits</td>
<td>3.32</td>
<td>1.26</td>
</tr>
<tr>
<td>Being safe</td>
<td>3.21</td>
<td>1.14</td>
</tr>
<tr>
<td>Having a significant other in my life</td>
<td>3.17</td>
<td>1.43</td>
</tr>
<tr>
<td>Enough time for myself</td>
<td>3.15</td>
<td>1.19</td>
</tr>
<tr>
<td>Weighing too much</td>
<td>3.09</td>
<td>1.40</td>
</tr>
<tr>
<td>Getting a physical exam</td>
<td>3.01</td>
<td>1.30</td>
</tr>
</tbody>
</table>

Note: Semantic differential scale 1 = not at all concerned; 5 = extremely concerned.

Subjects were divided into two age groups. A t-test was used to determine differences in healthcare concerns between students 17-24 years old and students more than 24 years old. The younger students identified 22 healthcare concerns. Students in the higher age bracket identified 18 healthcare concerns. There was a significant difference in healthcare concerns with the 17-24 year olds having a concern score of 136.9
and 25-53 year olds with a healthcare concern score of 124.5 ($t=3.50$, $df=228$; $p=.001$).

Individuals in the 17-24 year old group ($n=143$) ranked academic performance as their greatest concern with a mean of 4.10 ($SD=1.01$). Women older than 24 years of age ($n=87$) ranked a healthy environment as their greatest concern with a mean of 4.34 ($SD=0.84$). (See Tables 3 and 4.)

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic performance</td>
<td>4.10</td>
<td>0.01</td>
</tr>
<tr>
<td>Too much stress in my life</td>
<td>4.03</td>
<td>1.04</td>
</tr>
<tr>
<td>Getting enough rest</td>
<td>3.95</td>
<td>1.01</td>
</tr>
<tr>
<td>Healthy environment</td>
<td>3.70</td>
<td>0.89</td>
</tr>
<tr>
<td>Finances</td>
<td>3.59</td>
<td>1.17</td>
</tr>
<tr>
<td>My nutrition</td>
<td>3.59</td>
<td>1.03</td>
</tr>
<tr>
<td>Not getting enough exercise</td>
<td>3.57</td>
<td>1.23</td>
</tr>
<tr>
<td>Getting cancer</td>
<td>3.55</td>
<td>1.30</td>
</tr>
<tr>
<td>Eating habits</td>
<td>3.55</td>
<td>1.16</td>
</tr>
<tr>
<td>Body image</td>
<td>3.51</td>
<td>1.14</td>
</tr>
<tr>
<td>Being safe</td>
<td>3.49</td>
<td>1.10</td>
</tr>
<tr>
<td>Preventing chronic disease</td>
<td>3.48</td>
<td>1.12</td>
</tr>
<tr>
<td>Accessing good healthcare</td>
<td>3.47</td>
<td>1.17</td>
</tr>
<tr>
<td>Major illnesses</td>
<td>3.45</td>
<td>1.29</td>
</tr>
<tr>
<td>Family issues/relationships</td>
<td>3.44</td>
<td>1.30</td>
</tr>
<tr>
<td>My sleeping habits</td>
<td>3.44</td>
<td>1.28</td>
</tr>
<tr>
<td>Significant other in my life</td>
<td>3.35</td>
<td>1.37</td>
</tr>
<tr>
<td>Changes in my health</td>
<td>3.33</td>
<td>1.08</td>
</tr>
<tr>
<td>Enough time for myself</td>
<td>3.12</td>
<td>1.13</td>
</tr>
<tr>
<td>Having friends</td>
<td>3.09</td>
<td>1.27</td>
</tr>
<tr>
<td>Weighing too much</td>
<td>3.08</td>
<td>1.45</td>
</tr>
<tr>
<td>Effective birth control</td>
<td>3.03</td>
<td>1.50</td>
</tr>
</tbody>
</table>

*Note.* Semantic differential scale 1 = not at all concerned; 5 = extremely concerned.
Table 4  
Ranked Healthcare Concerns of 25-33 Year Old Female University Students (n=87)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy environment</td>
<td>4.34</td>
<td>0.84</td>
</tr>
<tr>
<td>Accessing good healthcare</td>
<td>3.98</td>
<td>1.15</td>
</tr>
<tr>
<td>Preventing chronic disease</td>
<td>3.86</td>
<td>1.01</td>
</tr>
<tr>
<td>Too much stress in my life</td>
<td>3.86</td>
<td>0.98</td>
</tr>
<tr>
<td>Changes in my health</td>
<td>3.76</td>
<td>1.12</td>
</tr>
<tr>
<td>Getting cancer</td>
<td>3.74</td>
<td>1.20</td>
</tr>
<tr>
<td>Getting enough rest</td>
<td>3.73</td>
<td>1.07</td>
</tr>
<tr>
<td>Academic performance</td>
<td>3.63</td>
<td>1.28</td>
</tr>
<tr>
<td>Not getting enough exercise</td>
<td>3.54</td>
<td>1.07</td>
</tr>
<tr>
<td>Major illnesses</td>
<td>3.49</td>
<td>1.19</td>
</tr>
<tr>
<td>Eating habits</td>
<td>3.43</td>
<td>.98</td>
</tr>
<tr>
<td>My nutrition</td>
<td>3.31</td>
<td>.99</td>
</tr>
<tr>
<td>Family issues/relationships</td>
<td>3.29</td>
<td>1.18</td>
</tr>
<tr>
<td>Body image</td>
<td>3.25</td>
<td>1.23</td>
</tr>
<tr>
<td>Enough time for myself</td>
<td>3.19</td>
<td>1.28</td>
</tr>
<tr>
<td>My sleeping habits</td>
<td>3.13</td>
<td>1.22</td>
</tr>
<tr>
<td>Weighing too much</td>
<td>3.10</td>
<td>1.30</td>
</tr>
<tr>
<td>Getting a physical exam</td>
<td>3.04</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Note. Semantic differential scale 1 - not at all concerned; 5 - extremely concerned.

Students without dependents had a higher concern score (135.5) than those with dependents (122.7) (t=3.37; df=227; p=.001). Full-time students had a higher healthcare concern score (136.0) than part-time students (126.1) (t=2.73; df=224; p=.007). There was not a statistically significant difference in healthcare concerns based on whether the student was employed or not (t=1.20; df=228; p=.23).

Analysis of Variance (ANOVA) was done to determine differences in healthcare concerns related to class standing, income level, seeking healthcare services, or seeking
healthcare information. A post-hoc Sheffe test determined that individuals in the lowest income bracket had the highest healthcare concern score F(4,213)=3.86, p=.004. Students who sought healthcare more often had a higher level of concern than those who did not F(2,227)=5.62, p=.004. There was not a statistically significant difference in healthcare concerns related to class standing, number of commute miles or the number of times an individual sought health-related information in a given year.

**Other Findings of Interest**

Approximately 90% rated their health as good or excellent. Students were asked to indicate their reason for selecting the category or rating of health. Though this was not computed in the data analysis, it was noted that many related their level of health to exercise and dietary habits.

The students were given opportunity to identify healthcare concerns, which were not included in the questionnaire. Forty-eight students replied with various concerns. The concerns most often identified were related to health insurance coverage, where to get quality healthcare, and the educational preparation and knowledge of healthcare providers.

**Summary**

According to the Healthcare Concern Score (M=132.2, SD=26.8), female university students have a moderate level of healthcare concern. The mean age of the participants was 26.1 years old. Seniors represented the largest number of respondents. The majority of participants were enrolled as full-time students and employed; 71.2% lived off campus with family or friends. Thirty-percent of the students were married and 27.6% had at least one dependent. Ethnic diversity of the group was limited, as 90.5% were white. There was not good representation of international students with only two
respondents indicating international student status. The average annual household income represented by the sample was $25,001-$50,000. Insurance coverage was available to 93% of the individuals. Overall, 21 healthcare concerns were identified and ranked. "Too much stress in one's life" was the highest ranked healthcare concern. Responses were divided into groups according to age. A healthy environment was the highest ranked concern of individuals older than 24 years of age. The 17-24 year olds ranked academic performance as their greatest concern. The younger age group had a higher healthcare concern score. Students without dependents, enrolled full-time, who sought healthcare more often, and who were in an income bracket of less than $10,000 per year had a higher level of concern. There was not a statistically significant difference related to healthcare concerns based on employment, class standing, and number of times an individual sought health-related information or the number of miles one commuted to campus.
CHAPTER 5
DISCUSSION

The purpose of the study was to gain a greater awareness of the self-perceived healthcare needs of female university students. This chapter contains discussion of the findings obtained from this research effort. Limitations of the study, implications for nursing practice, and recommendations for future research will be addressed.

Findings

It was evident by the 49.8% return rate of the questionnaires that female university students desire to have others know about their healthcare concerns. The average age of college students reported by Grace (1997) was 26 years old. This was also true of the current study sample and dispels the idea that most college students are 18-22 years old. The majority of the respondents were in the upper-level class ranks: juniors, seniors, or graduate students.

It is evident by the analysis that the majority of students live off campus and are enrolled as full-time students. The majority (76.1%) are employed but it is unknown if their employment status is part-time or full-time. Sixty-five percent of the respondents have never married and 27.6% have the responsibility of a dependent. The sample represented a wide range of academic interests and study. Though the sample was diverse in interests, it was not diverse in racial representation with 90.5% indicating they were white. It was the desire of the researcher to gain insight regarding the healthcare concerns of international students. This was not possible due to only two respondents being identified as international students.

Demographic information is considered basic conditioning factors when using the
Self-care Deficit Theory of Nursing developed by Orem (1991). The researcher was interested in knowing the self-perceived healthcare needs, the student’s healthcare requisite, and what factors influenced their identified needs.

An overall review of the findings shows “too much stress in my life” as the highest ranked healthcare concern. Stress related issues are reported as health concerns by other authors (Grace, 1997; Lee, Lentz, Taylor, Mitchell, & Woods, 1994; Musaiger & Radwan, 1995; gold, 1995; Makat, 1996). Access to good health care, nutrition concerns, body image, safety, and physical activity are overall concerns that were identified in previous studies. Many university administrators and healthcare providers view drinking behaviors and sexual behaviors as healthcare concerns. These concerns were not identified by the students in the overall ranking of healthcare concerns in this study. Keeping in mind that a concern was identified as having a mean of 3.0 or more, the greatest concern of 17-24 year olds was academic performance; the least of their concerns was effective birth control. Does this indicate that female students are not sexually active or that they feel comfortable with their method of contraception? Or is it based on their sense of invulnerability? Perhaps it relates to the age of the students participating in this study. With the mean age of 26.1 years, many of the students may be comfortable with their contraception, therefore, it is not a concern.

The older group of students, 25-53 year olds, identified a healthy environment as their greatest concern followed by access to good healthcare. Their least concern was getting a physical exam.

Both age groups had similar health concerns but ranked them differently. Concerns specific to the 17-24 year olds and not identified by the 24-53 year olds were...
finances, being safe, having a significant other in my life, having friends, and effective birth control. The one concern specific to the older group was getting a physical exam. Perhaps fear of knowing or not knowing one’s health status impacts the older student more than the younger student.

Students without dependents, those enrolled at the university full-time, and individuals in the lowest income bracket had the highest healthcare concern scores. There was not a statistically significant difference in healthcare concern scores related to employment status, class standing, commute miles, or amount of health information sought.

Implications for Nursing Practice

According to Orem, nursing cannot identify a self-care deficit without knowing the self-care requisites of an individual or group of individuals. The respondents in the sample have identified their selfcare requisites by identifying and rating their perceived healthcare needs. The findings of this study support, in part, results of previous studies. It is acknowledged that stress related issues, body image, and physical activity are major concerns for university students. Interestingly, the results of this study did not indicate a high level of concern regarding drinking behaviors, sexually transmitted diseases, pregnancy issues, or violence. Though the researcher does not dispute studies that indicate the aforementioned issues are of great concern for the university student, it is proposed that nursing professionals listen more intently to the student/patient/consumer. It is imperative to listen and to acknowledge the patient’s goal in the provision of care. How do the psychosocial concerns of the individual impact her physical healthcare concerns? How do our practices and facilities provide care for women? What
components of women's health are we providing care for? Which ones are we neglecting?

Do we have a comprehensive approach to the provision of healthcare to female university students?

Nursing has a vast opportunity to provide care in both the partly compensatory and supportive/educative nursing system outlined in Orem's theory. It is from this framework that the professional nurse acts to enhance the self-care agency of university students. This can be accomplished, for example, by the nurse being the student's advocate in accessing appropriate health care. This would be "acting for" or "doing for" by Orem (1991). The nurse can guide another by mentoring the student in dealing with stressful relationships, perhaps helping a student role-play a situation. Another avenue of providing care is supporting another. An example of supporting another is protecting one's confidentiality or providing anticipatory guidance. Orem recognizes the provision of a developmental environment as nursing care. The university community is one of ongoing development. The nurse can provide a safe place for the student as she experiences the developmental transitions of adulthood. The last intervention Orem identifies is teaching. There are many teachable moments the nurse can have with a client. Teaching preventive health measures to detect or prevent major illnesses is one way the nurse can instruct the student in her health management. It is important to note that the concerns identified by students cross-disciplinary boundaries, therefore, a multidisciplinary approach to the provision of care for university students would be beneficial.

Limitations

The researcher designed the instrument. Further instrument development with factor analysis to determine how precisely the instrument measures the three categories of
self-care requisites: universal, developmental, and health-deviation would be beneficial.

In retrospect, the lack of identifying the level of concern in words on the scale used for rating the healthcare concerns would be a threat to validity. Level one was designated as “not at all concerned”. Level five was designated as “extremely concerned”. The researcher assumed that level three indicated a moderate level of concern. It could have been interpreted as neutral—with or without concern.

Clarification of question fourteen is needed. Students were asked to describe their health at the given time—poor, fair, good, or excellent. When asked to give reasons for their selection, many responses related to whether or not they had health insurance coverage. Perhaps this was a carryover from question thirteen, which referred to insurance coverage.

Wholistic health is inclusive of physical, emotional, intellectual, and spiritual components. The spiritual component of health was not included in this study.

The use of one study site and the lack of racial diversity in the sample limit generality of the study. The sample does not represent international students.

Recommendations for Further Research

Replication of this study is recommended to determine generizability. There is need for further awareness of the totality of women’s health concerns on university campuses. Using multiple sites including two year colleges and private institutions of higher education in different regions of the state or nation would assist in determining the overall concerns of female university students. It would be of interest to learn more about healthcare concerns of select populations, especially those of international students.

Continued efforts must be made to close the gap between the patients’ perceived
healthcare needs and those perceived by the professional nurse. It is time to create partnerships with community and university resources, such as hospitals, the public health department, and sharing interdepartmental resources of time, money, and skills, to enhance awareness of female students’ healthcare concerns. University departments to consider could be Nursing, Counseling, Campus Wellness, Housing, and departments providing education in health-related fields. This will provide a foundation for the provision of care and a higher level of consumer satisfaction with healthcare thus, improving the health of the community.
May 28, 1998

Kathy Loose
2907 Trudy Lane
Lansing, MI 48910

Dear Kathy:

Your proposed project entitled "What are Female University Students' Perception of Their Healthcare Needs" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

Robert Hendersen, Acting Chair
Human Research Review Committee
April 6, 1998

Jill Davenport
Mosby – Year Book, Inc.
11830 Westline Industrial Dr.
St. Louis, MO 63146
Fax: 314-523-4968

Dear Representative:

I am writing to ask permission to copy or adapt figures published in the following book:


Figure 3-1 A conceptual framework for nursing (p. 64) and Figure 3-2 Constituent theories, the self care deficit theory of nursing (p. 66), will be incorporated into my graduate thesis if permission is granted.
Copies of the thesis will be distributed to three committee members and to the university library.

Thank you for your consideration. You may reply to the above address or by fax at 517-349-3220.

Sincerely,

Kathy Loope
Graduate Student
Kirkhof School of Nursing
Grand Valley State University
Allendale, MI

Mosby, Inc.
11830 Westline Industrial Drive
St. Louis, MO 63146

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4/24/98

Patricia K. Ochember
Permissions Coordinator
Library Services and Permissions
APPENDIX C
Dear Student,

I am a graduate student in the Kirkhof School of Nursing, Grand Valley State University. As a nurse practitioner I am interested in learning more about how women perceive their healthcare needs.

You are one of approximately 450 people selected to participate in a graduate research effort to better answer the question, "What are female university students' perceptions of their healthcare needs?"

Please enjoy a cup of tea as you take five to ten minutes to complete the enclosed questionnaire. The questionnaire has two parts. The first section includes demographic information. The second section requests your concerns regarding your healthcare needs.

There are no known risks associated with participation in this study. Responding to the research items will not influence your student status at Grand Valley State University. This study has been designed to protect the confidentiality of respondents, and will in no way link you with your response.

The completion and return of the questionnaire will serve as your consent to participate in this study. Please return the completed questionnaire in the addressed, stamped envelope provided, by October 12, 1998.

If you have questions or concerns regarding this study you may contact me at (517) 482-4254; my thesis chairperson, Phyllis Gendler at (616) 895-3516; or Robert Henderson, Acting Chair of Human Research Review Committee at (616) 895-2472.

Thank you for taking time to participate in this study. It is my hope that the information obtained will provide a foundation to better understand and meet the healthcare needs of female university students.

Sincerely,

Kathy Loose, BSN, RN-C, WHNP
Graduate Student
Kirkhof School of Nursing
Grand Valley State University
Healthcare Needs Questionnaire

PART A

I. What is your age? _______

II. What is your college class standing?
   1. Freshman  
   2. Sophomore  
   3. Junior  
   4. Senior  
   5. Graduate  
   6. Other _______

III. What is your enrollment status at the university?
   1. Full-time  
   2. Part-time  
   3. Guest _______

IV. What is your major area of study? ______________________________________________________________________

V. Current residence:
   1. On-campus housing  
   2. Live off-campus by myself  
   3. Live off-campus with family  
   4. Live off-campus with friends  
   Number of miles to campus _______

VI. What is your marital status?
   1. Never married  
   2. Married  
   3. Separated  
   4. Divorced  
   5. Widowed _______

VII. Do you have dependents?
   1. Yes  
   2. No _______

VIII. What is your race?
   1. White  
   2. Black, Non-Hispanic  
   3. Hispanic  
   4. Asian or Pacific Islander  
   5. American Indian or Alaskan Native  
   6. Other _______

IX. Are you an international student?
   1. Yes  
   2. No _______

X. What is your religious preference? ______________________

XI. Are you currently working for pay?
   1. Yes  
   2. No _______

XII. Annual household income?
   1. under $10,000  
   2. $10,001-$25,000  
   3. $25,001-$50,000  
   4. $50,001-$75,000  
   5. over $75,000
XIII. Do you have health insurance?
   1. Yes  2. No

XIV. How do you describe your health at this time?
   Please indicate reasons for selecting this category of health

XV. How many times a year do you seek professional healthcare?
   1. 0-1  2. 2-3  3. 4-5  4. 6-7  5. more than 7

XVI. How many times a year do you seek health-related information?
   1. 0-1  2. 2-3  3. 4-5  4. 6-7  5. more than 7
PART B

XVII. I am interested in learning about your healthcare concerns while you are a Grand Valley State University student. There are no right or wrong answers. Using the following scale, please rate each item and circle the number on the scale that most accurately represents your overall level of concern for the following issues:

<table>
<thead>
<tr>
<th>Not at all concerned</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Extremely concerned</th>
</tr>
</thead>
</table>

I am concerned...

1. ...about changes in my health ................................................................. 1 2 3 4 5
2. ...about getting a physical examination .................................................. 1 2 3 4 5
3. ...about a healthy environment ................................................................ 1 2 3 4 5
4. ...about allergies ....................................................................................... 1 2 3 4 5
5. ...about minor illnesses ............................................................................. 1 2 3 4 5
6. ...about preventing chronic disease ......................................................... 1 2 3 4 5
7. ...about getting cancer ............................................................................... 1 2 3 4 5
8. ...about major illnesses ............................................................................. 1 2 3 4 5
9. ...about accessing good healthcare .......................................................... 1 2 3 4 5
10. ...about menstruation ............................................................................... 1 2 3 4 5
11. ...about getting pregnant ......................................................................... 1 2 3 4 5
12. ...about not getting pregnant ................................................................. 1 2 3 4 5
13. ...about effective birth control methods .................................................. 1 2 3 4 5
14. ...about getting a sexually transmitted disease ....................................... 1 2 3 4 5
15. ...about too much stress in my life ........................................................... 1 2 3 4 5
16. ...about getting enough rest ..................................................................... 1 2 3 4 5
17. ...about my sleeping habits ..................................................................... 1 2 3 4 5
18. ...about not getting enough physical activity/exercise ............................ 1 2 3 4 5
19. ...about my eating habits ......................................................................... 1 2 3 4 5
20. ...that I don't weigh enough .................................................................... 1 2 3 4 5
21. ...about my nutrition ............................................................................... 1 2 3 4 5
22. ...that I weigh too much ........................................................................... 1 2 3 4 5
23. ...about my body image ................................................................. 1 2 3 4 5
24. ...about my alcohol consumption ................................................... 1 2 3 4 5
25. ...about my cigarette smoking ....................................................... 1 2 3 4 5
26. ...that I take too many medications ................................................. 1 2 3 4 5
27. ...that I use illegal drugs ...................................................................... 1 2 3 4 5
28. ...about my academic performance .................................................. 1 2 3 4 5
29. ...about being alone ........................................................................ 1 2 3 4 5
30. ...about socializing with others ......................................................... 1 2 3 4 5
31. ...about being in an accident ............................................................ 1 2 3 4 5
32. ...about being safe ........................................................................... 1 2 3 4 5
33. ...about sexual harassment ............................................................... 1 2 3 4 5
34. ...about being assaulted ................................................................... 1 2 3 4 5
35. ...about having enough time to myself .............................................. 1 2 3 4 5
36. ...about having friends ..................................................................... 1 2 3 4 5
37. ...about family issues/relationships .................................................. 1 2 3 4 5
38. ...about having a significant person in my life .................................... 1 2 3 4 5
39. ...about depression .......................................................................... 1 2 3 4 5
40. ...about suicide ................................................................................ 1 2 3 4 5
41. ...about my finances ........................................................................ 1 2 3 4 5
42. ...about knowing where to get healthcare ........................................ 1 2 3 4 5
43. ...about getting accurate health information .................................... 1 2 3 4 5
44. ...about making decisions regarding my health .................................. 1 2 3 4 5
45. ...about making decisions regarding the health of my family members .. 1 2 3 4 5
46. ...about the confidentiality of my healthcare ..................................... 1 2 3 4 5
47. ...about being able to pay for my healthcare ..................................... 1 2 3 4 5

XML. Please identify and rate additional concerns you have about your health or healthcare

____________________________________________________________________ 1 2 3 4 5
____________________________________________________________________ 1 2 3 4 5

Thank you for your time and consideration in completing this questionnaire!
APPENDIX E
A Reminder...

...to complete the questionnaire about your healthcare concerns and return it.

If you can't remember where you put it, you may pick one up at Dean of Students Office, Kirkhof School of Nursing, or Student Health Services.

Please return it to Phyllis Gendler, Kirkhof School of Nursing, Henry Hall, by October 30, 1998.
List of References


