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Health Promotion Practices Of Nurse Practitioners Practicing In The State Of Mississippi

Valerie O'Briant Sullivan

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HEALTH PROMOTION PRACTICES OF NURSE PRACTITIONERS PRACTICING IN THE STATE OF MISSISSIPPI

by

VALERIE O'BRIANT SULLIVAN

A Thesis
Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Nursing in the Division of Nursing Mississippi University for Women

COLUMBUS, MISSISSIPPI
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Health Promotion Practices of Nurse Practitioners Practicing in the State of Mississippi

by

Valerie O'Briant Sullivan

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Abstract

Health promotion has become a major factor in the practice of modern medicine for reasons such as cost effectiveness, disease prevention, and health promotion. Nurse practitioners are on the forefront in educating the public about health promotion practices. The purpose of this study was to describe the health promotion practices of nurse practitioners who practice in the state of Mississippi. Pender's (1992) Health Promotion Model which uses wellness orientation guided the research. The study addressed the question: What are the health promotion practices of nurse practitioners who practice in the state of Mississippi? The sample was comprised of all nurse practitioners in the state of Mississippi who returned the questionnaire. The research design was a nonprobability convenience sample. The Health-Promoting Lifestyle Profile II developed by Pender, Sechrist, and Walker (1995) was used to measure health-promoting lifestyle. A researcher-developed questionnaire was attached to the survey to request demographic data and ask open-ended questions on the individual reasons for practicing health promotion. Data were collected by a mailed survey. The results showed nurse practitioners did engage in health-promoting
behaviors, but they were least likely to engage in physical activities. Most nurse practitioners reported lack of time as the most frequent reason for not engaging in health-promoting behaviors. The study was limited in that it did not request information on smoking.

Recommendations for future studies include replication of the current studies with more specifics toward health-promoting behaviors and studies in the area of patient beliefs about nurse practitioners and their health-promoting behaviors.
Acknowledgements

Many people have played an important role in assisting me during this year. I could not have completed such an endeavor without the help of my family. Many thanks to my parents, husband, and child for all the sacrifices they made during this year.

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Chapter I
The Research Problem

Health promotion is grounded on the philosophy of individual and community control which involves educating people to take control and responsibility for their own health (King, 1994). Nurse practitioners must be committed to educating their patients in the area of health promotion. At present the health promotion practices of nurse practitioners are unknown. This chapter will discuss the problem of the unknown health promotion practices of nurse practitioners, the significance of nurse practitioners' health promotion practices, and the theoretical framework used to guide this study.

In the recent decade health care has changed dramatically with a greater emphasis on health promotion. Within health care, health promotion involves health-related behaviors and preventive health care. Health-related behaviors involve any activities engaged in by the person which may prevent illness, maintain health, or improve health. Preventive health care involves activities engaged in by a person to prevent illness or detect illness in an asymptomatic stage. The general assumption has been that the health care professional should be a
role model concerning health promotion practices and the client will be more likely to comply with health promotion practices if the health care professional role models the health promotion practices (Callaghan, 1995). There has been considerable research on the health promotion practices of other health care professionals (including nurses), but no studies were identified regarding the health promotion practices of nurse practitioners (Callaghan, 1995). The focus of this research was to document the health promotion practices of nurse practitioners in Mississippi.

Establishment of the Problem

Research has supported a link between certain health behaviors and disease (Callaghan, 1995; King, 1994; Wardle & Steptoe, 1991). Diseases such as coronary artery disease, stroke, cancer, and acquired immunodeficiency syndrome (AIDS) have been linked to behaviors such as smoking, lack of exercise, diet, excess alcohol intake, and unsafe sexual practices (Callaghan, 1995). The aforementioned diseases are the major causes of death in the Western society. Studies have indicated that certain lifestyle behaviors, such as smoking, alcohol consumption, and diet, are major influencing determinants in the incidence of premature death. National estimates reveal that approximately 50% of the morbidity in the United States relates to improper health practices or
environmental conditions. Many of these health practices could be changed through initiation of health promotion practices (Callaghan, 1995; Wardle & Steptoe, 1991).

Preventive health care involves regular participation in routine screening practices and lifestyle modifications. Individuals participate in their own preventive health care by reporting unusual signs and symptoms, performing self-breast exams, and performing self-testicle exams. Other suggested preventive health behaviors include abstaining from smoking, moderation of alcohol intake, sleeping 7 to 8 hours per night, exercising regularly, maintaining a desirable body weight, avoiding high-caloric, high-fat, and low nutritional foods, eating breakfast regularly, regular use of seat belts, and obeying speed limits (Wardle & Steptoe, 1991).

Health promotion varies from person to person. Several determinants affect the individual performance of health-related behaviors. The individual determinants are personality, motivation, environment, knowledge, and perceived benefits (King, 1994). A proven association exists between knowledge and following positive health behavior, such as diet control, smoking, decreased consumption of alcohol, and regular exercise habits. Therefore, health care providers, who have both the aforementioned knowledge and insight, should act as a role model for health promotion practices in addition to
educating their clients in this area (Wardle & Steptoe, 1991).

Nurses are the largest group of health care professionals in Western society (Callaghan, 1995). Research studies support that nurses generally do not comply with health promotion practices, especially when compared with the general public. The extent of noncompliance and effects on client outcomes have not been established. Empirical evidence does exist that noncompliance in clients may be directly influenced by the noncompliance or poor example of those involved in providing care (Callaghan, 1995; Wardle & Steptoe, 1991).

Many studies have been conducted regarding the health promotion habits of other medical professionals, including nurses, but none have been found which explicitly focused on nurse practitioners' behaviors. Most of the previous attempts to study nurses' practice of health promotion in their own lives has focused on smoking and alcohol use. During the past decade, the acceptability of smoking has declined, yet Olive and Ballard (1992) found that 23% of nurses are cigarette smokers. Additionally, Olive and Ballard found that health care professionals who smoke may not be as effective in counseling their clients to stop smoking as health care professionals who do not smoke. Henderson (1994) discovered that the number of registered nurses who smoke has declined (31% in 1974 to 18% in
Nonsmokers have been found to practice health-promoting lifestyles more often than smokers, and smoking is a direct indicator of overall lifestyle. Physicians who smoke have been found to counsel their clients less on smoking cessation than physicians who do not smoke, but other areas of health promotion practices have not been confirmed (Henderson, 1994).

Nurses have more contact with clients than any other group of health care providers. Nurse practitioners in primary care are capable of influencing their clients' health behaviors in many different areas, but first they need to evaluate their own perceptions regarding the practice of health-promoting behaviors. If nurse practitioners have a strong belief in health promotion practices and practice them in their daily lives, then they may be more likely to persuade their clients to participate in health promotion practices. In turn, clients who are educated and believe in health promotion practices are much more likely to practice them in their daily lives (Callaghan, 1995).

To improve health and decrease medical costs, many studies have been conducted on health promotion practices. However, no research studies have been identified regarding nurse practitioners' perceptions of their own health promotion practices. Therefore, the purpose of this study was to describe the health promotion practices of
nurse practitioners in Mississippi. Once the health promotion practices of nurse practitioners in Mississippi have been established, then further research can be initiated regarding the influences of nurse practitioners' health promotion practices on the health promotion practices of their clients.

Significance to Nursing

The nurse practitioner is instrumental in the education of clients concerning health promotion and disease prevention. Knowledge in the area of health promotion practices of nurse practitioners adds to the general body of nursing knowledge, thus adding to nursing research. The current study evaluates Pender's theory in a new arena involving nurse practitioners. Nurse educators can begin at entry level to teach students about the impact of personal health on client outcomes. Research may assist nursing leaders to identify areas in which they can help their practitioners stay healthy. Nurse practitioners must analyze their own beliefs and practices in the area of health promotion. The nurse practitioner should focus on changing or improving the client's own beliefs about health promotion and disease prevention through education and making the client aware of the positive health benefits received from practicing these behaviors. If nurse practitioners are expected to act as role models for health promotion practices, then nurse practitioners
should be aware of how their practices are represented as a group.

Theoretical Framework

Pender's (1992) Health Promotion Model provided the framework to guide the study. The Health Promotion Model was designed to identify and lend understanding to factors which influence client participation in health promotion activities. The Health Promotion Model identifies personal fulfillment and self-actualization rather than the threat of disease as motivation to practice health-promoting behaviors (Pender, 1992).

Pender (1992) hypothesized that demographic and biological characteristics influence health promotion behavior indirectly. Demographic factors include age, sex, income, marital status, and educational level. Biological factors are characteristics such as height and weight. The Health Promotion Model identifies interpersonal influences which involve the expectations of significant others and previous family patterns of health care. There also are situational variables which influence health care, such as prior experience with health promotion. These situational factors are described as modifying factors which influence health promotion through the cognitive-perceptual mechanisms which are identified in the Health Promotion Model (Johnson, Ratner, Bottorff, & Hayduk, 1993; Pender, 1992).
Cognitive-perceptual factors directly affect behavior and are influenced by the modifying factors. The cognitive-perceptual factors are classified as primary motivational factors. The first of the primary motivational factors is the individual's perception of the importance of health. The perception is the more a person values his or her health, the more likely he or she is to practice health-promoting behaviors. The second motivational factor is the individual's perceived control of health, in which the individual's knowledge enables him or her to change his or her health (Pender, 1992).

A third factor is the individual's level of self-efficacy. A person's perception of being healthy and feeling good about health serves as motivation for the practice of health promotion. A fourth factor is the individual's own personal definition of health. A fifth factor is the individual's current state of health which can influence whether or not health promoting behaviors may be practiced. The individual's perceived benefits of practicing health-promoting behaviors is a sixth factor. Individuals will be much more likely to participate in health-promoting behaviors if they perceive the benefits to be advantageous for themselves and their quality of life. The last of the cognitive-perceptual factors are the barriers an individual perceives to practice health-promoting behaviors. When an activity is difficult to
perform or obtain, the individual is much less likely to
perform the behavior (Pender, 1992).

Pender's (1992) Health Promotion Model focuses on the
individual. The Health Promotion Model consists of two
phases. The first phase involves individual decision
making, and the second phase involves the individual
taking action. The factors concerned in the decision-
making phase involve individual perceptions and modifying
factors. The action-taking phase concerns the individual's
perceived barriers and cues to action. The individual may
shift back and forth between the two phases. The model
recognizes that the individual's pursuit of health is of
great importance to that individual. Pender (1992)
identifies health as a positive state of well-being. The
responsibility for health ultimately rests upon the
individual. The Health Promotion Model can be used by
nurse practitioners to promote healthy lifestyles in their
clients as well as in themselves (Callaghan, 1995; Pender,
1992). For the purpose of the proposed study, Pender's
(1992) Health Promotion Model was used as a framework to
assess the health promotion practices of nurse
practitioners.

Assumptions

The following assumptions were made:

1. Health beliefs are an important motivator for
   health-promoting behaviors.
2. Individuals are responsible for their own health-promoting behaviors.

3. Nurse practitioners are capable of self-reporting their own health-promoting behaviors.

4. Health-promoting practices can be empirically measured.

**Purpose of the Study**

There has been much research on the health promotion practices of other health care professionals, but none to date regarding the health promotion practices of nurse practitioners. Therefore, the purpose of this study was to describe the health promotion practices of nurse practitioners in the state of Mississippi.

**Statement of the Problem**

Health promotion has become a primary issue in health care in the 1900s (King, 1994). Nurse practitioners are increasingly the primary care providers in Mississippi. It is of utmost importance for nurse practitioners to be well grounded in the teaching and practice of health promotion in their own lives and the lives of their clients. Therefore, the problem addressed in this study was the health promotion practices of nurse practitioners in Mississippi.
Research Question

One research question was answered in this study: What are the health promotion practices of primary care nurse practitioners in Mississippi?

Definition of Terms

For the purpose of this study, terms were defined as follows:

Health promotion practices: multifaceted interventions practiced by the individual and health care professionals to promote or maintain health and to prevent illness or detect it while asymptomatic. It is designed to promote a positive state of health and well-being (King, 1994). Scores on the Health-Promoting Lifestyle Profile II measured and defined the health promotion practices (Walker, Sechrist, & Pender, 1995).

Nurse practitioner: a registered nurse prepared through a formal organized educational program that meets guidelines established by the profession (American Nurses Association, 1995). Nurse practitioners were identified by certification with the Mississippi State Board of Nursing (Mississippi State Board of Nursing, 1995).

Conclusion

In this chapter, the problem was identified as unknown health promotion practices of nurse practitioners. Pender's (1992) Health Promotion Model was identified and
discussed as the theoretical framework. Health promotion involves many areas of health care, and nurse practitioners must be actively involved in all areas. The following chapter will review literature pertinent to the study.
Chapter II
Review of the Literature

In the recent decade the concept of health promotion has escalated in popularity within the health care field and the general public. Modern health care has focused on improving the public's health care for reasons such as disease prevention and cost effectiveness. Through offering health education to the public, health care researchers are now looking at the impact of health promotion on improving the health care practices of the public. Before improving the health of others, health care providers must first look at their own health promotion practices and be cognizant of what health providers' actions exemplify to their patients. There have been many studies on other health care providers, but none specifically on nurse practitioners. This review of literature examined health-promoting practices of nurses, dietitians, students, physicians, pharmacists, and the public. The following literature examined the findings pertinent to the present study.

A study by MacDonald, Lang, and Faulkner (1994) was germane to the proposed study. MacDonald et al. examined the health-promoting behaviors of student nurses in a
baccalaureate nursing class. The purpose of the study was twofold: to establish a student profile of health-promoting behaviors in a first year nursing class and to examine perceived control as a cognitive-perceptual determinant of specific health-promoting behaviors. The term health-promoting behaviors referred to the lifestyle and practices a person engaged in to improve or maintain health in a state of physical, mental, or social well-being (MacDonald et al., 1994).

The researchers sought to ascertain whether there was a relationship between health locus of control and health-promoting behaviors in student nurses. Pender's (1992) Health Promotion Model was used to determine health-promoting behavior in the nursing students. The sample \((N = 88)\) consisted of first year nursing students in a baccalaureate program. During the first term, the students studied personal lifestyle behavior and perceived locus of control. Following completion of the term, the study was explained to the class. Completion of the measurement tool and returning it gave implied consent for the study. Lifestyle behavior forms were compiled \((n = 68)\), and locus of control scale forms also were completed \((n = 35)\). The lifestyle behavior form was a 48-item questionnaire, Pender's Health-Promoting Lifestyle Profile, in which respondents indicated the frequency of their own health care practices. Perceived control was measured using
Multidimensional Health Locus of Control, Forms A and B. Each form contained 18 items which were designed to determine how individuals perceive important health-related issues (MacDonald et al., 1994).

MacDonald et al. (1994) found that highest item mean scores on the Health-Promoting Lifestyle Profile were in the areas of interpersonal support and self-actualization, and the lowest item mean score was in the area of health responsibility. Exercise, nutrition, and stress management also were scored relatively low. The students made comments concerning barriers which influenced their health-promoting behaviors such as lack of time related to nursing school curriculum and personal relationships. The researchers concluded that while the students value health-promoting behaviors, they do not practice them in their own lives.

MacDonald et al. (1994) recommended more research in the area of educational programs and student health promotion activities. The researchers also recommended studies on those people who already practice health promotion behaviors to determine what factors influence their activities.

Wardle and Steptoe (1991) assessed a wide range of health behaviors in their European Health and Behavior Survey. The importance of healthy behaviors and lifestyle practices has been widely accepted. Many studies have
indicated that certain behaviors or practices may predispose a person to illness or disease. The researchers sought to examine the wide variety of behaviors and practices a person engages in to promote health and prevent illness. Health promotion behaviors were defined as any behavior or activity engaged in to improve or maintain health and to prevent disease or detect it at an asymptomatic stage. The European community was chosen for two reasons. First, the incidence of major disease occurrence varied greatly across the continent, and secondly because Europe has experienced a great cultural integration which helped to vary the sample participants. The researchers addressed the question of what are the health practices and beliefs of the selected sample (Wardle & Steptoe, 1991).

Wardle and Steptoe (1991) chose to obtain a sample from university students seeking non-medical degrees. A target population of males (n = 200) and females (n = 200) in the age range of 18 to 30 years was chosen. The university population was chosen because these students were easily identifiable and were usually a healthy group.

The first phase of the study consisted of 219 males and 200 females, all in the chosen age range. The students were all enrolled at the University of London and were studying in areas of law, engineering, economics, and physical sciences. In addition to health behaviors and
beliefs, the researcher-developed questionnaire obtained information on age, height, weight, and demographic data. The data-gathering procedure involved the researcher explaining the survey to the students, followed by instructions that international comparisons would be made from the data. The students were guaranteed anonymity and then given the survey before they left class (Wardle & Steptoe, 1991).

Wardle and Steptoe (1991) found that the test-retest stability was highly stable ($L = 0.50-0.96; G = 0.91-0.99; p < .001$) except in the areas of exercise and alcoholic beverages consumed. When asked whether or not they had exercised during the past 2 weeks, 22% of the respondents changed categories. There were also changes in the reported number of days in which alcoholic beverages were consumed. The authors stated that these changes probably reflected normal variations in the daily living practices of the students. The correlation between health beliefs and health-promoting behavior was significant for all items ($p < .005$), ranging from .44 (caffeine consumption) to .90 (never drinking and driving).

The sample characteristics showed that the men were slightly older, taller, and heavier than the women. The women in the survey did report more health problems than the men, but the health problems were usually minor
(p < .001). The most frequent problems reported were colds, flu, and skin conditions such as acne or eczema. The women were more likely than their male counterparts to take over-the-counter medications (Wardle & Steptoe, 1991).

Wardle and Steptoe (1991) determined that the health-related behaviors for men and women were equal in their consumption of alcohol and cigarette smoking. There were no differences in the number of smokers and drinkers who wished to cut down on their activities according to sex. The men reported more frequent exercise than the women, but the women practiced healthier lifestyles in areas such as preventative care, food consumption, driving practices, and screening practices. Of the women surveyed, 23% knew how to perform self-breast exam, but only 2.6% actually performed the exam more than 10 times a year. Of the males surveyed, only 8% reported being familiar with self-testicular exam, and only 1.9% reported doing that exam 10 or more times a year (Wardle & Steptoe, 1991).

Of the health beliefs surveyed, Wardle and Steptoe (1991) found avoidance of driving after drinking received the highest rating. Women rated healthy diets, driving practices, avoidance of direct sunlight, and safe sexual practices higher than the men in the survey. Wardle and Steptoe found that "women rated self-testicle exam as more important than do men, while men consider self-breast exam
to be of more importance than do women" (Wardle & Steptoe, 1991, p. 931).

In the area of health knowledge, most participants were aware of the effects of smoking on lung cancer, consumption of animal fats on heart disease, and sun exposure on skin cancer, while most were not aware of the effects of smoking on heart disease and alcohol on hypertension. A majority of survey participants believed that stress played a major role in the incidence of illness, hypertension, and heart disease, and a majority believed that smoking was a major cause of breast cancer. In the area of links between health behavior, beliefs, and knowledge, many associations were found. For every item in the survey, there was significant correlation between the practice and beliefs about the practice. If a participant reported that he or she practiced a certain health behavior routinely, then the participant also reported strong beliefs that this activity was important in maintaining health. In examining links between health behavior and knowledge about health, only a few relationships were noted. Smokers' and non-smokers' opinions in the area of smoking having an influence on illness showed no significant differences. Also, conscious efforts to eat a healthy diet were not associated with knowledge of the link of diet to certain illness. A statistically significant finding was demonstrated in the
incidence of alcohol consumption; the regular and occasional drinkers were more aware of the influences of alcohol on illness than were the non-drinkers ($p = < .01$) (Wardle & Steptoe, 1991).

Wardle and Steptoe (1991) established that beliefs about the benefits of practicing health-promoting behaviors are strongly associated with the individual's practice of such health-promoting behaviors. Thus, the individual has a stronger commitment toward the practice of health-promoting behaviors if he or she performs those activities on a regular basis. The more frequently a behavior was performed, the stronger the belief about the importance of the behavior. Knowledge about the importance of health behavior or practice showed little importance in connection with the performance of health behaviors. The researchers concluded that participant belief was of greater importance than participant knowledge. The researchers recommended a continued emphasis for education in the areas of health promotion and disease prevention. Future studies should analyze the association between health beliefs and knowledge in more detail (Wardle & Steptoe, 1991).

Gorin (1992) conducted a study relevant to the current study in which the purpose was to examine and compare student nurses' attitudes and beliefs toward
health promotion. The cross-sectional study used 13 schools of nursing in the New York metropolitan area. The participants (N = 505) were students in their senior and second year of nursing school.

The students were given a questionnaire, the Nurses and Health Survey. The questionnaire was designed to assess attitudes and beliefs toward health promotion. Information was obtained on socio-demographics. The survey questions were rated from 1 to 5, 1 was "not important" and 5 was "very important." Testing was done at the beginning of classes (Gorin, 1992).

Gorin (1992) found that health behavior rankings, when compared to other groups, were similar to those completed on other health care providers. Small, but significant, relationships emerged among the students who had previously worked in five specialty areas and their beliefs toward health promotion behaviors. The students surveyed showed a high correlation in their ranking of health-promoting behaviors. Students listed knowledge about drug content and side effects as number one in importance. Cigarette smoking and eating a balanced diet were second and third, respectively. Seat belt usage and eliminating cigar smoking were fourth and fifth. The students rated regular exercise and decreasing sugar intake as items of lesser importance (Gorin, 1992).
The health promotion beliefs found in the Gorin (1992) study were compared to those of other health care providers (physicians, dietitians, and pharmacists). Among the professional disciplines previously surveyed, the student nurses were in agreement in the area of cigarette smoking, ranking it highest or second highest. Student nurses and dietitians rated eating a balanced diet third in importance, with physicians rating it fourth, and pharmacists rating it seventh in importance. Avoidance of fat in diet was ranked highest by the student nurses (sixth), and lowest by the pharmacists (10th). Avoidance of excess calories was ranked highest by physicians at third in importance and lowest by student nurses at ninth in importance. Having an annual physical exam was ranked highest by the student nurses (11th) and lowest by the physicians (18th). Engaging in aerobic activity was ranked highest by the student nurses (15th) and lowest by the pharmacists (22nd). All groups of health professionals, including student nurses, rated taking vitamin supplements as an item of less importance (Gorin, 1992).

Gorin (1992) discovered that there had been great attention paid to the high numbers of nurses who smoke in comparison to other health care professionals. This may reflect the students ranking the importance of smoking cessation as high. The nurse's role as health care provider may also reflect the other behaviors ranked as
important. Gorin recommended that future studies in this area should concentrate on the relationship between attitudes and practices of health promotion, nurses' own practice of health risk reduction and promotion, and lifestyle modification among these nurses' patients. The recommendation for future studies in the area of nurse's own practice of health risk reduction and promotion was germane to the author's study which described nurse practitioner's own health promotion practices (Gorin, 1992).

Vickery and Cotugna (1990) conducted a study which examined the health promotion beliefs of dietitians. The subjects were registered dietitians throughout the state of Delaware (N = 146). The mail-out survey was a health beliefs questionnaire that included 25 health-related items. The response rate was 65%. Descriptive statistics were used to analyze the data.

Vickery and Cotugna (1990) found that in the area of health-promoting behaviors agreement among the respondents was statistically significant (p < .0001). Ninety-nine percent of the respondents believed eating a balanced diet was important, and this health behavior was ranked in the top five behaviors. Eliminating smoking (cigarette, pipe, or cigar) was ranked number one among the participants. Use of condoms with multiple sex partners was ranked second. Use of seat belts ranked fourth. Other health
behaviors ranked included avoiding excessive calories (6th), avoiding high cholesterol (14th), regular exercise (15th), decreasing dietary salt (198th), and use of vitamin supplements (25th). The researchers believed that dietitians were ranking diet as a whole instead of focusing on individual aspects (Vickery & Cotugna, 1990).

Vickery and Cotugna (1990) compared the findings of this study to studies done previously with dietitians, pharmacists, and physicians. Elimination of smoking was ranked first or second among all groups, and vitamin supplements were ranked last or next to last among all groups.

Vickery and Cotugna (1990) concluded that dietitians agree that health promotion is part of their professional role. The researcher stated that the beliefs found in this study are indicative of the dieticians' personal health promotion practices, and the dietitians studied are positive role models for their patients. The researchers recommended that future studies should examine the specific health promotion practices that practitioners are engaged in to promote a healthy lifestyle.

Callaghan (1995) conducted a study relevant to the current study which examined the health-related behaviors of student nurses who lived in Southeast England. The researcher based the study on the premise that student nurses are expected to be role models for their clients.
The study was based on the assumption that clients are more likely to participate in health promotion activities and behaviors if the behavior is role-modeled by the health care provider. The purpose of the study was threefold: to examine nurses' health promotion behavior, to compare health promotion behavior to previous studies conducted in the United States and United Kingdom, and to compare health promotion behavior of males and females (Callaghan, 1995).

Callaghan (1995) utilized a questionnaire which had been developed by Wardle and Steptoe (1991) and was used in the European health and behavior survey. The questionnaires were given to nursing students (n = 80) at the end of a class period. Mailed questionnaires were sent to students (n = 130) who had completed classes. Callaghan (1995) obtained 113 usable questionnaires.

Callaghan (1995) found that females were generally more compliant with health-related behaviors than males which reflected the findings in the Wardle and Steptoe (1991) study. Callaghan established that of the student nurses surveyed almost one half reported smoking. Males were more likely to smoke than females (58% and 36%, respectively), but more males (83%) voiced a desire to quit smoking than females (73%). The majority of the student nurses sampled (85%) reported alcohol consumption, but most reported being only occasional consumers. Over
one half of the sample (65%) reported exercising in the previous 2 weeks. The average number of hours slept per night was 7. One half of the sample reported regular use of sun protection, and one third reported never sunbathing. Over one half of the participants (58%) reported consuming at least one serving of fruits and vegetables per day. In the area of diet, females were more compliant than males. This correlates with the study by Wardle and Steptoe (1991). In the area of fat and cholesterol consumption, 69% of the sample reported avoidance, and again females were more likely to avoid fat and cholesterol consumption. Twenty-six percent of females reported dieting, while only 10% of males reported dieting (Callaghan, 1995).

In safe driving practices, the sample reported using seat belts regularly (95%), and 65% reported driving within the speed limit. Callaghan (1995) found that 6% of the females reported involvement in drinking and driving in the past year. No males reported drinking and driving. Callaghan (1995) also found that females were more knowledgeable concerning self-breast examination. Overall, the study established that females were more likely to engage in preventative health screening practices than males (Callaghan, 1995).

Callaghan (1995) recommended that future research should focus on health behaviors studied in the survey.
plus expansion of the research to explore the impact of psychological health. Callaghan suggested that information on the health promotion practices of health care providers is unknown. Additionally, patient compliance to health promotion practices has not been directly assessed; any research in this area would be worthwhile in developing strategies in patient care.

A correlational study by Duffy (1989) examined the extent to which health locus of control, self-actualization, and specific health promotion activities explained the health status of employed women. Duffy considered influences of age, education, income, and present state of health of the participants. The purpose of the study was to examine the extent these factors explain women's reported health status. Pender's Health Promotion Model was used as the theoretical framework (Duffy, 1989).

The subjects (N = 800) were obtained utilizing systematic sampling of mailing lists of full-time employees of a state agency and an educational institution. Multiple instruments were used. Health locus of control was measured by the Multidimensional Health Locus of Control Scale. Self-esteem was measured on a 4-point Likert scale using the Rosenberg Self-Esteem Scale. The lower scores reflect higher self-esteem. Health status was measured by Ware's Health Perception
Questionnaire. Health promotion activity was measured by the Health-Promoting Lifestyle Profile. The Health-Promoting Lifestyle Profile was developed within the framework of Pender's Health Promotion Model (Duffy, 1989).

With a final participation of 420, Duffy (1989) discovered that women in this study who rated their overall health as good were more likely to have high internal locus of control, good household incomes, exercise frequently, have no diagnosed health problems, and score high on self-actualization. Yet the aforementioned women scored low on health responsibility. The researcher concluded that the women felt more in control of their own health. The findings support Pender's model in the areas of primary motivational mechanisms such as importance of health, perceived control of health, and perceived health status. Duffy's (1989) findings support a previous study by Duffy (1988) which surveyed mid-life women and found that women who eat a balanced diet and exercise routinely report an increased sense of well-being. The 1988 study by Duffy found that women who reported a high health locus of control, high self-esteem, and high perceived health status are more likely to engage in health-promoting behaviors. This further supports Pender's theory that interpersonal interactions nourish self-actualization (Duffy, 1988; Duffy, 1989).
Campbell and Kreidler (1994) conducted a qualitative study with older adults using Pender's (1992) Health Promotion Model. The study examined specific beliefs that elders have about wellness. The subjects (N = 33) were age 64 years and over, of low socioeconomic status, lived in subsidized housing, and had a diagnosis of at least one chronic illness. The subjects were visited and interviewed five times during a 3-month period.

Campbell and Kreidler (1994) found that the subjects viewed their health as beyond their control. The subjects stated that they depended on their doctors to determine their health status. The subjects' definition or perception of health was based on freedom from symptoms related to the diagnosed illness, physical mobility, and socialization with others rather than independent living. This group depended on their doctor for determination of their health, and one specific subject stated that he was healthy when the doctor told him so. Campbell and Kreidler's (1994) findings suggest that freedom from pain, ability to be mobile, and ability to socialize improve the elderly's perception of wellness.

Fleetwood and Packa (1991) conducted a study on determinants of health-promoting behaviors in adults. The purpose of their study was to determine whether there were correlations among adults' practice of health-promoting
behaviors, health locus of control, value of health, and knowledge of coronary artery disease risk factors.

The participants (N = 520) were military officers attending an educational course. Pender's Health-Promoting Lifestyle Profile was used to determine the health-promoting behaviors of the participants. Individual's knowledge and beliefs about coronary artery disease were assessed by a 13-item questionnaire. Health locus of control was assessed by the multidimensional Health Locus of Control instrument (Fleetwood & Packa, 1991).

Fleetwood and Packa (1991) found that the average score for the Health-Promoting Lifestyle Profile was 131 (range 48 to 194). Higher scores indicate higher health-promoting lifestyles. The Health-Promoting Lifestyle Profile consists of six subscales. The mean scores for the subscales were self-actualization, 42 (range 13 to 52; health responsibility, 22 (range 10 to 40); exercise, 13 (range 6 to 24); nutrition, 16 (range 6 to 24); interpersonal support, 21 (range 7 to 28); and stress management, 18 (range 7 to 28). The researcher found no statistical difference using Pearson's r in the total scores for those subjects reporting known coronary artery disease and those without coronary artery disease. Significant positive correlations were found between the Health-Promoting Lifestyle Profile scores and coronary artery disease risk knowledge scores.
Fleetwood and Packa (1991) concluded that subjects who were knowledgeable of coronary artery disease risk factors were more likely to participate in health-promoting behavior. The findings indicate that an individual's belief about health locus of control, health value, and knowledge about coronary artery disease risk factors are strongly related to the individual engaging health-promoting activities.

A study by Fincham and Smith (1988), which was related to the present study, was a mailed survey to pharmacists in Mississippi. The pharmacists' views about health promotion were collected. The survey consisted of a 25-item questionnaire in which the respondents rated their responses on a Likert scale. The pharmacists (N = 1,115) were chosen by a 50% random stratified sample in each community in Mississippi. Seven hundred forty-eight usable questionnaires were obtained (Fincham & Smith, 1988).

Fincham and Smith (1988) found that the respondents rated taking prescription drugs as the best way to promote health. Elimination of cigarette, pipe, or cigar smoking was rated as second in importance. Vitamin supplementation was ranked 24th of the 25 items surveyed. Pharmacists ranked sixth the importance of obtaining information to recognize the early signs of disease. Routine aerobic exercise was ranked 22nd. The ranking of an annual physical exam was relatively low at 16th. These findings
were germane to the current study which examined the health promotion practices of nurse practitioners in Mississippi.

Fincham and Smith (1988) concluded that pharmacists are in a position to influence the personal health practices of their patients, and this is an important component of their professional role. Fincham and Smith cited a position paper by the American Public Health Association which stated that community pharmacist rarely engage in public health activities ("Policy Statement," 1991). Fincham and Smith recommended greater attention on education of pharmacists is needed in the area of health promotion (Fincham & Smith, 1988).

Frauman and Nettles-Carlson (1991) conducted a study which examined clients in a nurse practitioner clinic. The nurse practitioner's practice focused on health promotion. The clinic was located in the Southeastern United States. The purpose of the study was to determine if health-related characteristics could influence the likelihood of a person's engaging in health promotion practices. Pender's Health Promotion Model was used as the theoretical framework. Three hundred thirty-four subjects were chosen for the mailed questionnaire survey, and 100 usable questionnaires were returned.

Frauman and Nettles-Carlson (1991) found that Pender's proposed relationship between perceived control
of health and engaging in health promotion activities was supported by this study. Eighty percent of the subjects reported a strong internal health locus of control, and 29% reported that they ranked health as their highest value. Among Pender's modifying factors, only higher income and education made a significant difference in the practice of health-promoting lifestyles. Race, age, gender, and rural or urban lifestyles were not significant on the Health-Promoting Lifestyle Profile survey. Frauman and Nettles-Carlson suggested that clinicians should assess the client's own definition of health when planning and implementing health care (Frauman & Nettles-Carlson, 1991).

The review of literature indicated a significant amount of research in the area of health promotion. The studies revealed that education plays a key role in an individual's practice of health promotion (Fincham & Smith, 1988; Fleetwood & Packa, 1991; MacDonald et al., 1994), but personal beliefs were a major factor in assessing the likelihood that an individual will practice health promotion (Wardle & Steptoe, 1991).

The studies by Callaghan (1995) and Wardle and Steptoe (1991) found that females were more likely to engage in health promotion behaviors than males. The studies also agreed that women were more compliant with
dietary practices and were more knowledgeable concerning self-breast examination than males.

The researchers (Callaghan, 1995; Fincham & Smith, 1988; Gorin, 1992; MacDonald et al., 1995; Vickery & Cotugna, 1990; Wardle & Steptoe, 1991) recommended future studies in the area of health promotion, and the study by Gorin (1992) recommended that nurses' own health promotion practices be studied specifically. The author for the current study concluded that there was a great need for a survey of specific health promotion practices of nurse practitioners in Mississippi.

Summary

This selected review of literature discussed the health promotion practices of student nurses, university students, dietitians, employed women, adults, older adults, and pharmacists. This allows for better understanding of the need for a study of health promotion practices of nurse practitioners. The following chapter will describe the methods used to conduct the study.
Chapter III
The Method

Health promotion has become a primary issue in health care in the 1900s. With nurse practitioners moving to the forefront in primary care in Mississippi, it will be of utmost importance for nurse practitioners to be well versed in the teaching and practice of health promotion, both in their own lives and in the lives of their clients. Therefore, the purpose of this study was to describe the health promotion practices of nurse practitioners in Mississippi.

The following chapter identifies the method in which the data were gathered. Certified nurse practitioners who provide care in the state of Mississippi were a sample of convenience. The Health-Promoting Lifestyle Profile II and a researcher-developed questionnaire were used to collect the data. Data were analyzed using descriptive statistics.

Design of the Study

The design of the study was a quantitative, descriptive design using a survey format. The study documented and described the health promotion practices practiced by nurse practitioners in primary care in the state of Mississippi. The sampling design was a
nonprobability sample of convenience. The Health-Promoting Lifestyle Profile II developed by Walker, Sechrist, and Pender (1995), and a researcher-developed questionnaire developed by the author were used to obtain the data (see Appendices A and B).

**Variables.** For the study, the controlled variables were certified nurse practitioners providing health care in the state of Mississippi. The variables of interest were the health promotion practices of nurse practitioners.

**Setting, Population, and Sample**

The setting was primary care facilities in Mississippi where certified nurse practitioners provide care. Mississippi has a variety of populations and cultures. The poverty rate for Mississippi families in the year 1989 was 20.2%, compared with a national poverty rate of 10.0%. The number one cause of death in Mississippi in 1995 was heart disease. The second and third highest causes of death were cancer and cerebrovascular disease. Diabetes mellitus was the seventh leading cause of death (Mississippi Department of Health, 1994; Winston County Economic Development District, 1994).

Mississippi's infant mortality rate for 1992 was one of the highest in the nation. Total live births in Mississippi to unwed mothers were 42.9%. Teen pregnancy rates for 1992 were 21.4%. The average per capita income
in Mississippi in the year 1991 was $13,318 per year, compared nationally to $19,169 per year (Winston County Economic Development District, 1994).

Availability of medical care in Mississippi in 1992 was lower than the national statistics. Mississippi recorded 1.3 physicians per 1,000 residents, while the national level showed 2.4 physicians per 1,000 residents. Mississippi has an average of 10.2 nurses per 1,000 residents, while the national number of nurses per 1,000 residents was 13.8 (Winston County Economic Development District, 1994).

Nurse practitioners providing health care were the target population, and all (N = 344) certified nurse practitioners who provide health care in the state of Mississippi were the target population. Nurse practitioners (n = 183) who responded to the survey were the sample population. Nurse practitioners in Mississippi function in a variety of specialties: Family, Adult, Pediatric, Geriatric, Midwifery, Neonatal, and Women's Health.

Method of Data Collection

Instrumentation. Permission was obtained from S. N. Walker, EdD, RN, FAAN, for the use of Health-Promoting Lifestyle Profile II (see Appendix C). The instrument was developed by Walker, Sechrist, and Pender (1995). The instrument is a revision of Pender's (1992) Health-
Promoting Lifestyle Profile. The revision reflects review of current literature and health practices. There have been no publications of the instrument in manuscript at this point. For the Health-Promoting Lifestyle Profile II, the Cronbach's alphas are as follows: Health Responsibility (.861), Physical Activity (.850), Nutrition (.800), Spiritual Growth (.864), Interpersonal Relations (.872), Stress Management (.793), and Total Health-Promoting Lifestyle Profile II (.943). The survey is a 52-item questionnaire which is rated on a 4-point Likert scale. The scale measures frequency of self-reported health-promoting behaviors. All information of the Health-Promoting Lifestyle Profile II was obtained from S. N. Walker.

The researcher-developed questionnaire was attached to the survey and requested demographic data such as age, sex, height, weight, and open-ended questions on personal beliefs about the practice of health-promoting behaviors. The questionnaire asked the participants to rank their health on a scale from 1 to 10, 10 being the most healthy.

Procedures. Data collection was begun after approval from the Committee on Use of Human Subjects in Experimentation at Mississippi University for Women (see Appendix D). Prospective subjects were mailed packets which contained the Health-Promoting Lifestyle Profile II
and Sullivan's questionnaire. The packet contained a cover letter which explained the study and confidentiality for the subjects (see Appendix E). The packet included a stamped envelope addressed to the researcher. The subjects were requested to place the data in the envelope and mail it to the researcher. The subjects were given the option to obtain a copy of the data by placing their name in the return address area of the envelope. They were instructed that they would potentially relinquish their confidentiality if they requested a copy. The subjects were informed in the cover letter that if they did place their name on the envelope, the researcher detached the questionnaire from the envelope upon receipt.

**Method of Data Analysis**

Data were analyzed using descriptive statistics. The statistics were utilized to describe nurse practitioners in Mississippi in terms of scoring on the Health-Promoting Lifestyle Profile II. Scoring was documented by the means and standard deviations for each variable of the Health-Promoting Lifestyle Profile II for the sample. The data were checked by frequency distribution analysis to insure appropriate responding. Subscales were computed by taking the mean for each item and then calculating the mean across the specific items for each of the six subscales and the overall total scale.
Demographic data were analyzed by obtaining the mean and range for each question. The open-ended questions were analyzed by grouping the responses into categories. A numerical value was obtained for the number of responses in each category.

Summary

The goal of the study was to produce descriptive information on the health promotion practices of nurse practitioners in the state of Mississippi. All certified nurse practitioners in the state of Mississippi were chosen as the target population. The survey was a mailed questionnaire. Descriptive statistics were used to analyze the data.
Chapter IV
The Findings

The purpose of this study was to describe the health promotion practices of nurse practitioners in the state of Mississippi. In this chapter, the sample will be described and findings from data analysis will be presented. The tools used to obtain the data were the Health-Promoting Lifestyle Profile II (HPLP II) and a researcher-developed questionnaire. The data were analyzed using descriptive statistics.

Description of Sample

All nurse practitioners currently certified in the state of Mississippi were chosen as the sample. The sample represented a variety of specialties, such as adult, family, geriatric, midwifery, neonatal, pediatrics, and women's health. The mailing sample included 344 subjects. Questionnaires were mailed on March 7, 1996, and the last questionnaires were accepted on April 26, 1996. Twelve questionnaires were returned to the researcher after the data had been analyzed. Of the sample, seven questionnaires were returned with incorrect address and 32 returned were incomplete. A total of 183 usable questionnaires was obtained. The age of the respondents
ranged from 25 to 67 years with a mean age of 42.480. The respondents were mostly female (92.9%). The mean height of the respondents was 65.295 inches, and the mean weight was 157.410 pounds. Of the specialties represented, family nurse practitioners supplied 74.3% of the participants, with adult (9.8%), pediatric (7.7%), midwifery (5.5%), geriatric (1.6%), women's health (0.5%), and neonatal (0.5%) representing other specialties.

Results of Data Analysis

The study addressed the following question: What are the health promotion practices of nurse practitioners in Mississippi? Participants (N = 183) completed the 52-item HPLP II (see Appendix F for mean and standard deviation of each question). Participants answered each question by selecting the frequency for which they participated in the practice as N for never, S for sometimes, O for often, and R for routinely. Data were analyzed using a score of 1 for never, 2 for sometimes, 3 for often, and 4 for routinely. The higher the score, the stronger the health-promoting lifestyle. Using descriptive statistics, the frequency and percentiles for highest and lowest scores are represented in Tables 1 and 2.
Table 1

Highest Responses to Statements on HPLP II

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th></th>
<th>Sometimes</th>
<th></th>
<th>Often</th>
<th></th>
<th>Routinely</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>48. Feel connected with greater force</td>
<td>1</td>
<td>.5</td>
<td>13</td>
<td>7.1</td>
<td>29</td>
<td>15.8</td>
<td>140</td>
<td>76.5</td>
</tr>
<tr>
<td>12. Believe life has a purpose</td>
<td>0</td>
<td>.0</td>
<td>11</td>
<td>6.0</td>
<td>42</td>
<td>23.0</td>
<td>130</td>
<td>71.0</td>
</tr>
<tr>
<td>13. Maintain meaningful relationships</td>
<td>1</td>
<td>.5</td>
<td>14</td>
<td>7.7</td>
<td>50</td>
<td>23.7</td>
<td>118</td>
<td>64.5</td>
</tr>
<tr>
<td>42. Aware of what is important</td>
<td>1</td>
<td>.5</td>
<td>11</td>
<td>6.0</td>
<td>58</td>
<td>31.7</td>
<td>113</td>
<td>61.7</td>
</tr>
<tr>
<td>25. Show love easily</td>
<td>0</td>
<td>.0</td>
<td>10</td>
<td>5.5</td>
<td>68</td>
<td>37.2</td>
<td>105</td>
<td>57.4</td>
</tr>
<tr>
<td>18. Look forward to future</td>
<td>2</td>
<td>1.1</td>
<td>12</td>
<td>6.6</td>
<td>60</td>
<td>32.8</td>
<td>109</td>
<td>59.6</td>
</tr>
<tr>
<td>7. Praise other people easily</td>
<td>0</td>
<td>.0</td>
<td>15</td>
<td>8.2</td>
<td>79</td>
<td>43.2</td>
<td>89</td>
<td>48.6</td>
</tr>
</tbody>
</table>

Note. N = 183.
Table 2
Lowest Responses to Statements on HPLP II

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>41. Practice relaxation and meditation</td>
<td>79</td>
<td>43.2</td>
<td>67</td>
<td>36.6</td>
<td>20</td>
<td>10.9</td>
<td>17</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>28. Do stretching exercises</td>
<td>58</td>
<td>31.7</td>
<td>73</td>
<td>39.9</td>
<td>30</td>
<td>16.4</td>
<td>22</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>16. Participate in moderate physical activity</td>
<td>57</td>
<td>31.1</td>
<td>68</td>
<td>37.2</td>
<td>33</td>
<td>18.0</td>
<td>25</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>40. Check pulse when exercising</td>
<td>42</td>
<td>23.0</td>
<td>82</td>
<td>44.8</td>
<td>36</td>
<td>19.7</td>
<td>23</td>
<td>12.6</td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 183.
A number of questions received notably high mean responses. Participants (N = 183) scored high on Question 7 which asked, "Do you praise other people easily for their achievements?" The mean score for this question was 3.404. Question 12 received a mean score of 3.650 which asked the question, "Do you believe that your life has a purpose?" A total of 130 participants reported they routinely believed their life had a purpose. Question 13, "Do you maintain meaningful and fulfilling relationships with others?" received a mean score of 3.557. Question 18 asked, "Do you look forward to the future?" It received a mean score of 3.508. Question 25 asked the question, "Do you find it easy to show love and concern for others?" The mean score for this question was 3.519.

The highest score obtained was for Question 48, "Do you feel connected with some force greater than yourself?" The mean score for this question was 3.683. The lowest mean score was 1.863 on Question 41, "Do you practice relaxation or meditation for 15-20 minutes daily?" Only 17 participants reported routinely engaging in relaxation or meditation.

The HPLP II contained seven subscales within the questionnaire. The higher the subscale score, on a scale from 1 to 4, the stronger the health-promoting practice. Health-promoting lifestyle was measured by Questions 1
through 52. The mean score for each of the subscales can be seen in Table 3.

Table 3

HPLP II Subscale Scores Regarding Health Promotion Practices of Nurse Practitioners

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health-promoting lifestyle</td>
<td>2.864</td>
</tr>
<tr>
<td>Health responsibility</td>
<td>2.737</td>
</tr>
<tr>
<td>Physical activity</td>
<td>2.336</td>
</tr>
<tr>
<td>Nutrition</td>
<td>2.836</td>
</tr>
<tr>
<td>Spiritual growth</td>
<td>3.361</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>3.247</td>
</tr>
<tr>
<td>Stress management</td>
<td>2.574</td>
</tr>
</tbody>
</table>

Additionally, four open-ended questions were asked. The first question asked participants to describe what factors in their life encouraged them to practice health-promoting behaviors. The second question asked participants what factors in their life prevented them from practicing health-promoting behaviors. Most participants provided more than one answer for each question. The answers were grouped into categories, and the number of participants in each category was noted. In
Tables 4 and 5, information gained from open-ended Questions 1 and 2 is summarized.

Table 4

Factors Which Encourage Health Promotion

<table>
<thead>
<tr>
<th>Factors</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value healthy lifestyle/disease prevention</td>
<td>93</td>
</tr>
<tr>
<td>Professional knowledge</td>
<td>59</td>
</tr>
<tr>
<td>Love of family</td>
<td>35</td>
</tr>
<tr>
<td>Family history/illness</td>
<td>20</td>
</tr>
<tr>
<td>Personal appearance</td>
<td>17</td>
</tr>
<tr>
<td>To be a role model</td>
<td>5</td>
</tr>
<tr>
<td>Taught as a child</td>
<td>4</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>2</td>
</tr>
<tr>
<td>Religious beliefs</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 5
Factors Which Prevent Health Promotion

<table>
<thead>
<tr>
<th>Factor</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long work hours/time</td>
<td>115</td>
</tr>
<tr>
<td>Lack of willpower</td>
<td>47</td>
</tr>
<tr>
<td>Family</td>
<td>18</td>
</tr>
<tr>
<td>Tired</td>
<td>13</td>
</tr>
<tr>
<td>Distance/lack of facilities</td>
<td>11</td>
</tr>
<tr>
<td>Stress/anxiety</td>
<td>5</td>
</tr>
<tr>
<td>Poor habits</td>
<td>5</td>
</tr>
</tbody>
</table>

The third and fourth open-ended questions asked participants to describe beliefs about teaching health promotion practices to clients and whether or not their own health promotion practices encouraged or discouraged their clients' health promotion practices. A total of 151 participants believed a nurse practitioner was more likely to influence clients to practice health promotion if the nurse practitioner conducted such practices in daily life. Many participants expressed the belief that they could teach health promotion practices to clients while they did not practice them, but they would be more effective if they did practice health promotion personally. For that reason, many participants responded positively to both questions.
Seventy-five participants believed that nurse practitioners could not adequately teach health promotion practices if they did not practice them in their own lives. Sixteen participants stated that they did not believe that nurse practitioners' personal health promotion practices influenced clients. These 91 participants were very decisive in their answers.

Participants were asked to rate their personal health on a scale from 1 to 10, 1 being poor health and 10 being excellent health. The mean health rating was 7.301 with a standard deviation of 1.472. Table 6 displays the number of participants who selected scores from 4 to 10. No participants rated a health score of less than 4.

Table 6

<table>
<thead>
<tr>
<th>Score</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>8</td>
<td>59</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

Note. N = 183.
The 75 participants who believed that they could not teach health promotion practices to their clients if they did not practice them in their daily life received a mean health score of 7.79. The 16 participants who believed that their health promotion practices did not influence their clients received a mean health score of 7.13. All participants who answered yes to both questions or no to both questions on influencing clients were excluded from these scores.

Summary

The purpose of the study was to describe the health promotion practices of nurse practitioners in the state of Mississippi. All certified nurse practitioners in Mississippi were chosen as the sample. A total of 183 usable questionnaires were obtained. The HPLP II and researcher-developed questionnaire were used to obtain the data. The responses obtained provided data to describe the health promotion practices of nurse practitioners in Mississippi.
Chapter V
The Outcomes

In the past decade health promotion has become a major area of interest for providers of primary health care. Nurse practitioners are on the forefront of providing health promotion teaching in primary care. The purpose of this study was to describe the health promotion practices of nurse practitioners in the state of Mississippi. All certified nurse practitioners in Mississippi were selected as the target population. The sample consisted of all certified nurse practitioners in Mississippi who returned the mailed survey. The survey consisted of two questionnaires. The Health-Promoting Lifestyle Profile II was used to measure health-promoting lifestyle. A researcher-developed questionnaire was used to obtain demographic data and open-ended questions on the individual's reasons and beliefs about health promotion practices. Data were analyzed using descriptive statistics. In this chapter, the outcomes of the study are presented.

Summary and Discussion of the Findings

The research question asked what are the health promotion practices of nurse practitioners in Mississippi?
Data were obtained through a mailed survey of certified nurse practitioners in the state of Mississippi.

Mississippi is a state which ranks last or close to last in most surveys of health, education, and income. Nurse practitioners in Mississippi are challenged by poor patient health ratings. Low physician- and nurse-to-client ratios occur in many underserved areas. Nurse practitioners are integral to providing health care for the underserved in Mississippi.

A study on nursing students by MacDonald et al. (1994) used the original Health-Promoting Lifestyle Profile to describe the health promotion practices of the students. The researchers discovered that the highest item mean scores for the students were in the areas of interpersonal support and self-actualization. Nursing students rated lowest in the area of health responsibility. The current researcher found that nurse practitioners in Mississippi scored second highest in the area of interpersonal relations (\(M = 3.247\)). Spiritual growth received the highest mean score at 3.361. Physical activity received the lowest score for the subscales at 2.336. Health responsibility received a relatively low score of 2.737. The scores correlate with the findings of MacDonald et al. (1994). These similarities underscore the fact that, while nurse practitioners are doing well in the
areas of spirituality and emotions, physical health-promoting behaviors are a low priority.

Not surprising in Mississippi, the heart of the "Bible Belt," the responses to the question, "Do you feel connected with some greater force than yourself?" received the highest mean score (3.683). Nurse practitioners further responded to the question, "Do you feel that your life has a purpose?" with a high mean score of 3.650. It can be inferred from the high score that nurse practitioners in Mississippi believe themselves to be spiritually healthy and find their lives purposeful.

An unfortunate but not unusual finding was the mean score in the area of physical activity. Question 16, which asked about participation in light physical activity, had a mean score of 2.142. Participation in stretching exercises scored even lower at 2.087. Obtaining exercise during daily activities, Question 34 was rated slightly higher at 2.781. However, participants scored lowest on Question 41 which asked about participation in relaxation or meditation for 15-20 minutes each day. The mean score for this question was 1.863, which would seem to conflict somewhat with the concept of spiritual health.

The author concluded that nurse practitioners do wish to engage in health-promoting behaviors, but are unable to because of lack of time. On the open-ended questions
participants overwhelmingly reported long work hours and lack of time as primary deterrents to health promotion.

Nurse practitioners scored relatively high in areas of nutrition, spiritual growth, and interpersonal relations. Nurse practitioners also scored relatively high on physical activities in daily life, such as taking the stairs instead of the elevator and parking cars away from the destination to encourage walking. These scores led the author to conclude that nurse practitioners do practice some health-promoting behaviors when they can fit the practice into their daily routine, but most nurse practitioners are simply pushed for time to participate in routine exercise or relaxation methods.

Wardle and Steptoe (1991) found in their European Health and Behavior Survey that a person's belief in a behavior and the frequency of participating in that behavior was strongly correlated. The researcher for the current study found that those nurse practitioners who believed that one could not adequately teach health promotion practices to clients unless they practiced such behaviors in their own daily lives scored slightly higher (M = 7.79) on the health score rating than those nurse practitioners who did not believe that health promotion practices of a nurse practitioner influenced clients (M = 7.13).
Wardle and Steptoe (1991) further established that beliefs about benefits of practicing health-promoting behavior were strongly associated with the practice of health-promoting behaviors. Wardle and Steptoe concluded that belief was stronger than knowledge in determining whether or not a person would engage in health-promoting behaviors. The researcher for the current study found that most participants stated they valued a healthy lifestyle and desired disease prevention. Many also stated that professional knowledge encouraged them to participate in health promotion practices.

Seventy-five of the participants in this study had strong beliefs about health promotion practices in their own lives and teaching health promotion practices to clients. These 75 indicated that they could not adequately teach health promotion behaviors to clients if they did not personally engage in such practices. Only 16 participants felt that their own health promotion behaviors had no effect on encouraging clients to participate in health-promoting behaviors. Many participants \((n = 92)\) indicated that they believed a nurse practitioner could practice adequately in either situation.

Gorin (1992) conducted a study in which student nurses' attitudes and beliefs toward health promotion were examined. The researcher found that student nurses listed
knowledge about drug content and side effects, an issue of being informed, as number one in importance. Fleetwood and Packa (1991) had a similar finding in that knowledge was a major factor in determining participation in health-promoting behavior. The current researcher found that nurse practitioners listed knowledge of health promotion practices, an information issue, as the second most important fact which influenced health promotion practices.

A study conducted by Duffy (1989) examined the health locus of control, self-actualization, health status, and specific health promotion activities of employed women. The women in the Duffy study who reported high internal locus of control and high household incomes, exercised frequently, had no diagnosed health problems, and scored high on self-actualization, yet were found to score low on health responsibility. In the current study, in which the majority of the participants were female, a relatively low score was revealed (fourth of seven subscales) in the area of health responsibility (2.737).

Fleetwood and Packa (1991) conducted a study regarding determinants of health-promoting behaviors of adults in the military. The researchers used Pender's original Health Promotion Lifestyle Profile. There were six subscales on the original Health Promotion Lifestyle Profile; and the higher the score, the higher the
health-promoting lifestyle. The highest score in the 1991 study for the subscales was Self-Actualization, which received a mean score of 42. The second highest score was Health Responsibility ($M = 22$). The following four subscales were listed in descending order: Interpersonal Support ($M = 21$), Stress Management ($M = 18$), Nutrition ($M = 16$), and Exercise ($M = 13$). The researcher for the current study found the subscales to rank in the following order: Spiritual Growth, Interpersonal Relations, Nutrition, Health Responsibility, Stress Management, and Physical Activity.

Physical Activity was rated lowest in both the Fleetwood and Packa study and the current study. With the emphasis on the need for exercise in the media and from health care providers, it is of particular importance that the nurse practitioners did not participate in exercise.

Fincham and Smith (1988) conducted a study in which participants were pharmacists in Mississippi. The researchers concluded that pharmacists are in a position to influence the personal health practices of their clients by being role models. Of the nurse practitioners who responded to the current study, 5 stated that they were encouraged to participate in health-promoting behaviors because they wanted to be role models.
Findings Relevant to the Theoretical Framework

The author's findings and conclusions support Pender's Health Promotion Model. In the Health Promotion Model, Pender (1992) identifies cognitive-perceptual factors which serve as primary motivational mechanisms. Pender identifies perceived benefits of health-promoting behaviors as a cognitive-perceptual factor. Many participants reported perceived benefits of behaviors such as disease prevention, current illness, personal appearance, and improved self-esteem.

Pender (1992) identified perceived barriers in the cognitive-perceptual factors. Many participants reported barriers in their lives which prevented engaging in health-promoting behaviors. Some of the more commonly cited barriers were long work hours, family, lack of willpower, too tired, long distance to facility, and lack of facilities.

Pender (1992) noted perceived health status as a cognitive-perceptual factor. The current state of feeling well or ill can influence a person to engage in health-promoting behaviors. Many participants reported family history of illness or personal illness as a factor which encouraged them to engage in health-promoting behaviors. Importance of health also was noted. The 75 participants who believed participating in health promotion activities in their own lives was necessary to encourage their
clients to engage in health-promoting activities scored slightly higher ($M = 7.79$) on the health score rating than the 16 participants ($M = 7.13$) who did not believe their own health-promoting behaviors had an effect on their clients.

The researcher concluded that nurse practitioners do engage in health promotion practices but have some weak areas such as physical activity. Overwhelmingly, nurse practitioners stated that the main factor which prevented them from engaging in health-promoting practices was lack of time. Pender identifies cognitive-perceptual factors as having a direct effect on health-promoting behaviors. Lack of time was the most frequently perceived barrier to nurse practitioners.

After the data were obtained, the author noted that there was no question which directly inquired about smoking. The Health Promotion Lifestyle Profile II did not include smoking nor did the researcher-developed questionnaire. This was a major weakness of the study. Many of the previous studies in the literature review discussed the high incidence of smoking in the medical field.

Another limitation noted was the target population was confined to one geographical area, the state of Mississippi. The study consisted of a convenience sample which decreased the ability to generalize the findings.
The study examined the health promotion practices of certified nurse practitioners in Mississippi. Based on the findings from this study, a number of conclusions were drawn.

The majority of the nurse practitioners stated they believed that the personal practice of health-promoting behaviors would improve the ability to educate and encourage clients. Only 16 participants believed that personal health-promoting behaviors had no effect on their clients. Many nurse practitioners felt that honesty was the best policy, suspected that clients knew whether or not nurse practitioners practiced what they taught, and reported being highly spiritual.

Nurse practitioners scored lowest in the area of physical activity. Nurse practitioners need to acknowledge that exercise is an important lifestyle change that should be made if they are to encourage their clients to practice this change.

Nurses have traditionally been taught to care for others above themselves. Nurse practitioners must learn that they must first meet their own needs before they can adequately care for someone else.

**Implications for Nursing**

Pender's (1992) Health Promotion Model states that the individual is ultimately responsible for his or her own health. Nurse practitioners who have been socialized
to always put others before self may need to rethink their behavior. Each individual should make time to practice health-promoting behaviors for individual health. Nurse practitioners need to find time to engage in health-promoting behaviors. If nurse practitioners are aware of the benefits of health-promoting behaviors, but do not participate in such activities, personal health, as well as opportunities for role-modeling, will inevitably be lost.

The strong belief by many nurse practitioners that personal practice of health-promoting behaviors would improve the ability to educate clients should encourage those nurse practitioners who do not engage in health promotion in their own lives to change their practices. These nurse practitioners who believed that personal health promotion practices had no effect on clients' practice of health promotion should be encouraged to reevaluate their beliefs. Therefore, nurse practitioners could be more positive role models for clients to pattern their health promotion practices.

Many corporations and hospitals have implemented wellness centers for employees. Such centers allow employees to exercise before or during work hours. This would be a suggestion for nurse practitioners who work in these facilities. While most nurse practitioners are in rural settings, some planning would be needed to achieve
health promotion. Nurse practitioners must assume responsibility for their own health. Nurse practitioners who are busy and have limited hours need to be creative in finding ways to engage in health-promoting behaviors.

The study evaluates Pender's theory in a new realm involving nurse practitioners. There were no research studies found involving the health promotion practices of nurse practitioners. The study will add to the general body of nursing research.

Knowledge concerning the health promotion practices of nurse practitioners in Mississippi has been described by this study. Nurse practitioners will be apprised of the findings of this study.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Replication of the same study in other states for comparisons.

2. Replication of the study using a national sample.

3. Conduction of research on client beliefs about nurse practitioners and their health-promoting behaviors.

4. Publication of findings from research that examines the health promotion practices of nurse practitioners.
REFERENCES
References


Mississippi State Board of Nursing. (1995). Certified nurse practitioners in Mississippi. (Available from Mississippi State Board of Nursing, Jackson, MS)


Walker, S. N., Sechrist, K., & Pender, N. J. (1995). Health-Promoting Lifestyle Profile II. (Available from University of Nebraska Medical Center, College of Nursing, 600 South 42nd Street, Omaha, NE 68198-5330)


APPENDIX A

LIFESTYLE PROFILE II
LIFESTYLE PROFILE II

DIRECTIONS: This questionnaire contains statements about your present way of life or personal habits. Please respond to each item as accurately as possible, and try not to skip any item. Indicate the frequency with which you engage in each behavior by circling:

- N for never, S for sometimes, O for often, or R for routinely

<table>
<thead>
<tr>
<th></th>
<th>NEVER</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ROUTINELY</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Discuss my problems and concerns with people close to me. N S O R</td>
<td></td>
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<tr>
<td>2.</td>
<td>Choose a diet low in fat, saturated fat, and cholesterol. N S O R</td>
<td></td>
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<tr>
<td>3.</td>
<td>Report any unusual signs or symptoms to a physician or other health professional. N S O R</td>
<td></td>
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<td>4.</td>
<td>Follow a planned exercise program. N S O R</td>
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<td>5.</td>
<td>Get enough sleep. N S O R</td>
<td></td>
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<tr>
<td>6.</td>
<td>Feel I am growing and changing in positive ways. N S O R</td>
<td></td>
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<td>7.</td>
<td>Praise other people easily for their achievements. N S O R</td>
<td></td>
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<tr>
<td>8.</td>
<td>Limit use of sugars and food containing sugar (sweets). N S O R</td>
<td></td>
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<tr>
<td>9.</td>
<td>Read or watch TV programs about improving health. N S O R</td>
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<tr>
<td>10.</td>
<td>Exercise vigorously for 20 or more minutes at least three times a week (such as brisk walking, bicycling, aerobic dancing, using a stair climber). N S O R</td>
<td></td>
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<tr>
<td>11.</td>
<td>Take some time for relaxation each day. N S O R</td>
<td></td>
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<td>12.</td>
<td>Believe that my life has purpose. N S O R</td>
<td></td>
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<tr>
<td>13.</td>
<td>Maintain meaningful and fulfilling relationships with others. N S O R</td>
<td></td>
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<tr>
<td>14.</td>
<td>Eat 6-11 servings of bread, cereal, rice and pasta each day. N S O R</td>
<td></td>
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<tr>
<td>15.</td>
<td>Question health professionals in order to understand their instructions. N S O R</td>
<td></td>
<td></td>
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<tr>
<td>16.</td>
<td>Take part in light to moderate physical activity (such as sustained walking 30-40 minutes 5 or more times a week). N S O R</td>
<td></td>
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<tr>
<td>17.</td>
<td>Accept those things in my life which I cannot change. N S O R</td>
<td></td>
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<tr>
<td>18.</td>
<td>Look forward to the future. N S O R</td>
<td></td>
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<tr>
<td>19.</td>
<td>Spend time with close friends. N S O R</td>
<td></td>
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<tr>
<td>20.</td>
<td>Eat 2-4 servings of fruit each day. N S O R</td>
<td></td>
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<tr>
<td>22.</td>
<td>Take part in leisure-time (recreational) physical activities (such as swimming, dancing, bicycling). N S O R</td>
<td></td>
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<tr>
<td>23.</td>
<td>Concentrate on pleasant thoughts at bedtime. N S O R</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>24.</td>
<td>Feel content and at peace with myself. N S O R</td>
<td></td>
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<tr>
<td>25.</td>
<td>Find it easy to show concern, love and warmth to others. N S O R</td>
<td></td>
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<tr>
<td>26.</td>
<td>Eat 3-5 servings of vegetables each day. N S O R</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>NEVER</td>
<td>SOMETIMES</td>
<td>OFTEN</td>
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<tr>
<td>27.</td>
<td>Discuss my health concerns with health professionals.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>28.</td>
<td>Do stretching exercises at least 3 times per week.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>29.</td>
<td>Use specific methods to control my stress.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>31.</td>
<td>Touch and am touched by people I care about.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>32.</td>
<td>Eat 2-3 servings of milk, yogurt or cheese each day.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>33.</td>
<td>Inspect my body at least monthly for physical changes/danger signs.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>34.</td>
<td>Get exercise during usual daily activities (such as walking during lunch, using stairs instead of elevators, parking car away from destination and walking).</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>35.</td>
<td>Balance time between work and play.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>36.</td>
<td>Find each day interesting and challenging.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>37.</td>
<td>Find ways to meet my needs for intimacy.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>38.</td>
<td>Eat only 2-3 servings from the meat, poultry, fish, dried beans, eggs, and nuts group each day.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>39.</td>
<td>Ask for information from health professionals about how to take good care of myself.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>40.</td>
<td>Check my pulse rate when exercising.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>41.</td>
<td>Practice relaxation or meditation for 15-20 minutes daily.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>42.</td>
<td>Am aware of what is important to me in life.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>43.</td>
<td>Get support from a network of caring people.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>44.</td>
<td>Read labels to identify nutrients, fats, and sodium content in packaged food.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>45.</td>
<td>Attend educational programs on personal health care.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>46.</td>
<td>Reach my target heart rate when exercising.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>47.</td>
<td>Pace myself to prevent tiredness.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>48.</td>
<td>Feel connected with some force greater than myself.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>49.</td>
<td>Settle conflicts with others through discussion and compromise.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>50.</td>
<td>Eat breakfast.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>51.</td>
<td>Seek guidance or counseling when necessary.</td>
<td>N</td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>52.</td>
<td>Expose myself to new experiences and challenges.</td>
<td>N</td>
<td>S</td>
<td>O</td>
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</tbody>
</table>
APPENDIX B

SULLIVAN'S QUESTIONNAIRE
Sullivan's Questionnaire

Please fill in each blank to the best of your ability.

1. Age:__________
2. Sex:__________
3. Height:__________
4. Weight:__________
5. Specialty
   ____ Adult
   ____ Family
   ____ Midwifery
   ____ Pediatric
   ____ Geriatric

6. What factors in your life, if any, encourage you to practice health promotion practices?

7. What factors in your life, if any, prevent you from practicing health-promotion practices?

8. On a scale from 1 to 10 (1 being extremely unhealthy and 10 being extremely healthy), how do you rank yourself? 1 2 3 4 5 6 7 8 9 10

9. Tell me your beliefs.
   Do you feel that you can adequately teach health-promotion practices to your patients if you do not practice them in your own life?

10. Do you feel that because you practice health-promotion behaviors in your own life that you are more likely to encourage your patients to practice health-promotion behaviors?
APPENDIX C

PERMISSION TO USE TOOL
November 27, 1995

Susan Noble Walker, EdD, RN, FAAN
Department of Gerontological, Psychosocial, and Community Health Nursing
600 South 42nd Street
Omaha, NE 68198-5330

Dear Ms. Walker,

I am writing to request consent to use your Health-Promoting Lifestyle II in my graduate research. I am studying the health-promotion practices of nurse practitioners in the state of Mississippi. I am presently seeking a MSN in the Family Nurse Practitioner Program at Mississippi University for Women.

I look forward to hearing from you soon. Thank you for your time and consideration.

Sincerely,

Valerie O. Sullivan, RN, BSN
Dear Colleague:

Thank you for your request and payment to use the Health-Promoting Lifestyle Profile II. As indicated in the enclosed form, you have permission to copy and use the enclosed Health-Promoting Lifestyle Profile II for non-commercial data collection purposes such as research or evaluation projects provided that content is not altered in any way and the copyright/permission statement at the end is retained. The instrument may be reproduced in the appendix of a thesis, dissertation or research grant proposal without further permission. Reproduction for any other purpose, including the publication of study results, is prohibited without specific permission.

While not required as a condition of use, we would appreciate your providing us your HPLPII data along with a few demographic items on disk at the completion of your study. Such data would be used only to develop norms for various population groups and to evaluate psychometric characteristics of the scales across population groups. If the event that you are willing to provide such data, a cover sheet and instructions for format are enclosed.

We thank you for your interest in the Health-Promoting Lifestyle Profile II and wish you much success with your efforts.

Sincerely,

Susan Noble Walker, EdD, RN, FAAN
Professor and Chair,
Department of Gerontological, Psychosocial and Community Health Nursing

Encl.: Health-Promoting Lifestyle Profile II
Scoring instructions
List of publications reporting use of the original Lifestyle Profile
Dear Colleague:

Thank you for your interest in the *Health-Promoting Lifestyle Profile II*. The original *Health-Promoting Lifestyle Profile* became available in 1987 and has been used extensively since that time. Based on our own experience and feedback from multiple users, it has been revised to more accurately reflect current literature and practice and to achieve balance among the subscales. The *Health-Promoting Lifestyle Profile II* continues to measure health-promoting behavior, conceptualized as a multidimensional pattern of self-initiated actions and perceptions that serve to maintain or enhance the level of wellness, self-actualization and fulfillment of the individual. The 52-item summated behavior rating scale employs a 4-point response format to measure the frequency of self-reported health-promoting behaviors in the domains of health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations and stress management. It is appropriate for use in research within the framework of the Health Promotion Model (Pender, 1987), as well as for a variety of other purposes.

The development and psychometric evaluation of the English and Spanish language versions of the original instrument have been reported in:

A manuscript describing the reliability and validity of the revised instrument is in preparation. For *Health-Promoting Lifestyle Profile II*, the Cronbach’s alphas are as follows: Health Responsibility (.861), Physical Activity (.850), Nutrition (.800), Spiritual Growth (.864), Interpersonal Relations (.872), Stress Management (.793), Total HPLP II (.943). A principal axis factor analysis supported the presence of the six factors used as subscales.

Copyright of all versions of the instrument is held by Susan Noble Walker, EdD, RN, FAAN, Karen R. Sechrist, PhD, RN, FAAN and Nola J. Pender, PhD, RN, FAAN. Permission no longer will be given to use the original *Health-Promoting Lifestyle Profile*. The extensive demand for use has been gratifying to us, but also costly. To offset the costs associated with revision, psychometric evaluation and distribution of the *Health-Promoting Lifestyle Profile II* at the University of Nebraska, there is now a small charge for use. If you wish to use the instrument, please complete and sign 2 copies of the enclosed permission form, along with a check for $10.00 made payable to the University of Nebraska Medical Center College of Nursing and return to:

Susan Noble Walker, EdD, RN, FAAN
University of Nebraska Medical Center
College of Nursing
600 South 42nd Street
Omaha, Nebraska 68198-5330

A copy of the instrument, scoring instructions, signed permission for use and a list of publications reporting research using all versions of the instrument will be forwarded to you.

Sincerely,

Susan Noble Walker, EdD, RN, FAAN
Professor and Chair, Department of Gerontological, Psychosocial and Community Health Nursing

University of Nebraska—Lincoln  University of Nebraska Medical Center  University of Nebraska at Omaha  University of Nebraska at Kearney
PERMISSION FORM

I plan to use the Health-Promoting Lifestyle Profile II in a research or evaluation project entitled:
Health Promotion Practices of Nurse Practitioners in Primary Care in the State of Mississippi.

I am enclosing a check for ten dollars ($10.00) payable to the University of Nebraska Medical Center College of Nursing.

Valerie Ciliento Sullivan
Print Name
Student FNP
Position
109 Oakshire Drive
Mailing Address
Louisville, MS 34329

Valerie Ciliento Sullivan
Signature
(601) 773-2295
Area Code Telephone #

Permission is granted to the above investigator to copy and use the Health-Promoting Lifestyle Profile II for non-commercial data collection purposes such as research or evaluation projects provided that content is not altered in any way and the copyright/permission statement at the end is retained. The instrument may be reproduced in the appendix of a thesis, dissertation or research grant proposal without further permission. Reproduction for any other purpose, including the publication of study results, is prohibited without specific permission.

Susan Noble Walker
Date 12/15/95

Please send two signed copies of this page to: Susan Noble Walker, Ed.D., R.N., F.A.A.N.
University of Nebraska Medical Center
College of Nursing
600 South 42nd Street
Omaha, Nebraska 68198-5330
APPENDIX D

APPROVAL OF MISSISSIPPI UNIVERSITY FOR WOMEN COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION
March 5, 1996

Ms. Valerie O. Sullivan  
c/o Graduate Program in Nursing  
Campus

Dear Ms. Sullivan:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research as submitted.

I wish you much success in your research.

Sincerely,

Susan Kupisch  
Vice President  
for Academic Affairs

SK:wr

cc: Mr. Jim Davidson  
Dr. Mary Pat Curtis

Where Excellence is a Tradition
APPENDIX E

COVER LETTER TO PARTICIPANTS
108 Oakshire Drive  
Louisville, MS  39339

Dear Nurse Practitioner,

I am a student in the Family Nurse Practitioner Program at Mississippi University for Women. I am doing my research on the health-promotion practices of nurse practitioners in the state of Mississippi. Enclosed is a Lifestyle Profile Survey II and Sullivan's Questionnaire. I would greatly appreciate it if you could take a few minutes of your time to fill out the questionnaire.

By filling out the questionnaire and mailing it back to me in the enclosed, stamped envelope, you will be giving consent for me to use the information that you have provided. Do not place your name on the questionnaire or the envelope. The information that you provide will be anonymous.

If you would like me to send you a copy of the results, place your name and address on the outside of your return envelope. By doing this, you may have the potential to lose your anonymity, but the information and your name will be kept separate as soon as the researcher obtains the envelope.

Thank you for your participation.

Sincerely,

Valerie O. Sullivan, RN, BSN
APPENDIX F

HPLP II SCORES
### HPLP II Scores

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