Self-Diagnosis and Self-Treatment Behaviors in Registered Nurses

Margaret M. Hatfield

Grand Valley State University

Follow this and additional works at: http://scholarworks.gvsu.edu/theses

Part of the Nursing Commons

Recommended Citation
Hatfield, Margaret M., "Self-Diagnosis and Self-Treatment Behaviors in Registered Nurses" (1996). Masters Theses. 288.
http://scholarworks.gvsu.edu/theses/288

This Thesis is brought to you for free and open access by the Graduate Research and Creative Practice at ScholarWorks@GVSU. It has been accepted for inclusion in Masters' Theses by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.
ABSTRACT

SELF-DIAGNOSIS AND SELF-TREATMENT BEHAVIORS
IN REGISTERED NURSES

By
Margaret M. Hatfield, B.S.N., R.N.C.

This is a descriptive correlational study to determine the prevalence of types of self-diagnosing and self-treatment (SD/ST) behavior in registered nurses and how this may influence their use of a primary care provider. It is modeled after a study of this behavior in physicians by Cockerham, Creditor, Creditor, & Imrey (1980). Multiple choice SD/ST responses were made to 13 acute, self-limiting symptom scenarios by a random sample of registered nurse (n=101). The response choices were grouped as; (1) non-physician dependent(NPD), e.g. treat symptoms with over-the-counter drugs, (2) traditional physician-dependent(TPD): sought care of regular primary care provider, and (3) non-traditional physician-dependent(NTPD), e.g. sought advice or prescription from a physician co-worker. This study explored the relationships between the SD/ST behaviors of registered nurses and levels of nursing education, years of nursing experience,
practice role, and practice setting. The length of time since their last visit with their primary care provider was also correlated to the type of self-care they practiced.

Findings suggest that nurses with the lowest levels of education are most likely to choose NTPD. No statistically significant relationships were found with any other demographics. Also of interest, 94% of the sample had visited their provider within the past 2 years. Implications for nursing practice are also presented.
I would like to acknowledge and thank Linda Bond, Ph.D., RNC, my thesis chair, mentor, and friend. She has taught me perseverance and did not allow me to give up even though time passed and places changed. A sincere gratitude goes to my husband, Tom, who has modeled courage by just continuing on when uncertainty looms greatest.
Table of Contents

List of Tables ...................................... vi
List of Appendices .................................. vii

CHAPTER

1 INTRODUCTION ........................................ 1

2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK ................. 9

  Conceptual Framework ................................ 9
  Review of Literature ................................ 12

3 METHODOLOGY ......................................... 21

  Design .............................................. 21
  Population and Sample .............................. 22
  Instrument ......................................... 23
  Procedure ......................................... 26

4 RESULTS/DATA ANALYSIS ................................ 28

  Demographics ....................................... 28
  Self-Diagnosis/Self-Treatment Responses .............. 31

5 DISCUSSION AND IMPLICATIONS ............................ 38

  Discussion ......................................... 38
  Limitations ......................................... 42
  Implications for Practice ........................... 43
  Implications for Research ........................... 44

APPENDICES .............................................. 46

REFERENCES ........................................... 52
List of Tables

Table 1. Description of Symptom Scenarios................................. 24
Table 2. Demographic Characteristics.............. 29
Table 3. Time Length since Last Visit with Primary Care Provider......... 30
Table 4. Self-Diagnosis/Self-Treatment Response Groups...................... 32
Table 5. Responses by Group per Scenario...... 36
Table 6. Response Frequency of Group 3 Behaviors......................... 37
List of Appendices

A. Permission for Use of Instrument ........... 46
B. Human Subjects Review ...................... 47
C. Cover Letter ......................... 48
D. Demographic Questionnaire ............... 49
E. Instructions for Self-Diagnosis/
   Self-Treatment Tool ......................... 50
F. Self-Diagnosis/Self-Treatment Tool ........ 51

vii
CHAPTER 1

INTRODUCTION

Self-care has existed in some form since the beginning of the human species. The extent of and manner in which it has been practiced is influenced by intuition, experiences, learned knowledge, cultural traditions, and the ability of the individual to perform self-care with available resources. In the early 1970's the self-care movement in the field of health gained definition and momentum in the United States fueled by the women's movement and the dissatisfaction with the "establishment" of the 1960's (Northrup, 1993).

Examples of changes in self-care are found in nursing and to some extent in medicine. Nursing was an early proponent of the self-care movement. Dorothea Orem published *Nursing: Concepts of Practice* in 1971. This nursing theory is based on the concept of self-care. Self-care is conceptualized by Orem as a baseline health behavior for the population and nursing is only required when individuals are unable to meet this need for
themselves. This self-care nursing theory includes the presupposition: "All things being equal, human beings have the potential to develop intellectual and practical skills and maintain motivation essential for self-care and care of dependent family members" (Orem, 1991, p. 69). The scope of any individual's ability for self-care is expandable with additional knowledge and practice of skills.

The self-care movement was fostered by some in the medical community as efforts were made to educate the public on the basics of self-care in health and illness. Tom Ferguson, M.D. authored Medical Self-Care in 1980. This text and accompanying classes provided the lay public with the knowledge and skills to treat many common health problems. Use of basic diagnostic tools, such as sphygmomanometers, stethoscopes, otoscopes, and thermometers was taught to health care consumers. Treatment plans were given for many common problems that included home remedies as well as over-the-counter medication. In 1988 the American Medical Association published The American Medical Association Home Medical Adviser. The book was "designed to help you (the lay person) to distinguish between what may be a minor problem and what may require professional medical attention. . . . will also help (the lay person) decide how long
(the lay person), as a concerned but sensible person, should wait before seeking medical help" (A.M.A., 1988, p.5). The algorithms included in this text contain information on self-care for health problems as well as when a condition may be life-threatening and immediate medical attention is needed.

Self-Care in Registered Nurses

In the United States, registered nurses are included among those individuals with the greatest education and skill in the treatment of health problems. The nurse is also often the gatekeeper for the family's utilization of health care and perceives the use of health resources through the consumer's eye. Utilizing the Orem (1991) concept of self-care, registered nurses would be capable of providing a higher level of health care for themselves. Registered nurses accumulate years of education and experience. Their ability to effectively treat the health problems of others is enhanced by broader assessment skills, the synthesis of their knowledge and experience, and their ability to enlist patients in their own treatment plan.

Theoretically, the ability of the registered nurse to care for his or her own health problems should be increased because of their expanded
knowledge and increased clinical practice skills (Friedson, 1970). The American Nurses Association's definition of nursing practice (1981) states that registered nurses possess advanced knowledge and are capable of recognizing symptoms that will lead to the formation of diagnoses and treatment plans. The curriculum for advanced practice nursing programs include diagnosis and treatment of health problems and are strongly rooted in the current medical treatment for the same problems.

The majority of registered nurses work in environments which provide easy access to diagnostic equipment and medication that would facilitate self-diagnosis and self-treatment of their own health problems. Casual observation reveals that some registered nurses do self-diagnose their own health problems and carry out treatment plans. Their treatment plans may employ prescriptive or over-the-counter medication. If they need prescriptive medication, they may use drug samples left for patient use by pharmaceutical representatives or they may ask a physician co-worker for a prescription. Sometimes these nurses will use unused portions from previously filled prescriptions found at home.

Besides the obvious concerns about this

4
behavior, such as possibly using outdated prescriptive drugs or "borrowing" from medicine intended for other household member's use, there are questions about whether this extension of self-care behavior in illness is harmful or beneficial to the person practicing them.  

"Promotion of health, well-being, and ability to care for oneself among all age, social, and cultural groups" has been identified as a research priority by the Cabinet on Nursing Research of the American Nurses Association in 1985 (Talbot, 1995, p. 17).  

In 1992 registered nurses in the United States composed a group of nearly 2,239,816 with the overwhelming majority of these nurses being female (U.S. Public Health Service, 1994). The female traditionally takes on the role of nurturer. In an historical context, females have also functioned as herb-gatherers and healers. Nurses have unique knowledge and access to treatments that are not available to the general public.  

This research will explore what are some of the non-traditional methods that nurses use for self-diagnosis and self-treatment of their own health problems.
Problem Statement

There are complex issues that surround self-care behavior in registered nurses. An exploratory study of this phenomenon will bring to the surface some factors that may or may not compromise the health of this significant group of mainly female health professionals. For example, the possibility exists that increased self-diagnosing and self-treating behaviors in registered nurses decreases their use of a primary care provider, which in turn may make their use of regular health screening tests like Pap smears and mammograms less likely. In self-diagnosis and self-treatment there is the potential for loss of objectivity, thus increasing the possibility of over-treating, under-treating, or misdiagnosing. There may be difficulties with the acquisition of the needed prescription or prescriptive drugs. In some work places, taking sample drugs for personal use can jeopardize employment.

Registered nurses, as well as the lay public, are affected by circumstances that make receipt of care by a primary health care provider difficult. Finances, convenience, the length of waiting time for an appointment date and extensive waiting room time are dissatisfiers for the registered nurse who has already diagnosed her own health problem and is
knowledgeable about a treatment plan.

**Purpose of the Study**

The purpose of this study is to determine the prevalence of various types of self-diagnosing and self-treatment behavior among registered nurses and how this may influence their use of a primary care provider. A tool used initially with physicians by Cockerham, Creditor, Creditor, and Imrey (1980) will be adapted and sent to nurses. The questionnaire will identify self-diagnosis and self-treatment behaviors for self-limiting, acute health problems that would not normally require treatment by a physician. The respondents will be asked to identify how they responded to these symptoms and what methods of diagnosis and treatment were employed by them. This descriptive study will look for relationships that may exist between the increased practice of certain types of self-diagnosis and self-treatment behaviors and an increased length of time since last visit to their regular health care provider. Information will also be sought regarding their nursing education, length of clinical experience in nursing, practice role, practice arena, as well as demographics. The study will help define types of self-diagnosis and self-treatment behaviors in nurses. It will explore if
there are relationships between the practice of these different types of behavior and nursing education, length of experience in nursing, practice area, and practice role. This attempt to define behavior that appears to exist among many health professionals will add to the existing body of knowledge about self-care.
CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Conceptual Framework

Orem's self-care theory of nursing has provided the theoretical framework for many nursing research studies (Fawcett, 1989). Possibly this level of utilization is due to the primary belief in western culture that the individual will desire to retain a degree of control when in a condition of diminished health or when an opportunity for improved wellness is possible. The ideation of personal responsibility for health has been promoted by the managed health care movement and the pursuit of health care reform by federal and state governments. This desire for autonomy in health/illness decision-making is not necessarily true of other cultures where the sick role may reap even more social benefits (Northrup, 1993). There are segments within western culture whose ethnic roots also define a more dependent role in health matters.

According to the self-care theory (Orem, 1991), the individual must attain the
essential elements of knowledge of when care is needed, how care can be provided, and the skill to provide that care. The deficit of any or all of these components triggers the need for nursing care (Orem, 1991). The proposition is then put forth that the registered nurse with an expanded knowledge base will experience less self-care deficit for health needs than the lay public. As the knowledge base is expanded even more by advanced education and experience, even greater autonomy in self-care is possible for the registered nurse. However, much of the research using the self-care framework has been done in health promotion and disease prevention in non-nursing individuals (Fawcett, 1989).

Orem conceptualizes nursing as "the complex ability to accomplish, or contribute to the accomplishment of a person's usual and therapeutic self-care by compensating for or aiding in overcoming the conditions or disabilities that cause the person: (1) to be unable to act, (2) to refrain from acting, or (3) to act ineffectively in self-care" (1991, p. 187). Self-care requisites, or requirements, include: universal, developmental, and health deviation. While universal and developmental self-care requisites are important, health care deviation is the focus of this study. Health deviation self-care includes care required to
diagnose and correct conditions of illness, injury, or disease.

Health deviation self-care requisites are: (1) seeking and securing appropriate medical assistance..., (2) being aware of and attending to the effects and results of pathologic conditions and states..., (3) effectively carrying out medically prescribed diagnostic, therapeutic, and rehabilitative measures..., (4) being aware of and attending to or regulating the discomforting or deleterious effects of prescribed medical measures..., (5) modifying the self-concept (and self-image) in accepting oneself as being in a particular state of health and in need of specific forms of health care, (6) learning to live with the effects of pathological conditions and states and the effects of medical diagnostic and treatment measures in a life-style that promotes continued personal development (Orem, 1991, p.134).

Self-care deficit is defined as "the relationship between self-care agency and therapeutic self-care demands of individuals in which capabilities for self-care, because of existent limitations, are not equal to meeting some or all of the components of their therapeutic self-care demands" (Orem, 1991, p.173). Self-care
limitations discussed include "restrictions of knowing, judgment, decision-making, and result-achieving actions in either the investigative or production phases of self-care" (Orem, 1991, p. 170). Based on this reasoning, registered nurses would be limited in their own self-care demands only by the extent of their knowledge, experience, physical limitations, and any legal/ethical constraints.

Self-care behaviors in illness have been studied by medical sociologists. T. Parsons (1951) describes the sick role and the unique characteristics in the behavior between patients and healers. The sick role is not self-care but socially prescribed behavior when a person is ill and among those behaviors is the expectation that the person seek out competent help, i.e. physician care. The shift in recent years toward more autonomous care by individuals in western culture has also been noted in the field of medical sociology (Cockerham, 1992).

Review of the Literature

In reviewing a twenty year window of the literature regarding self-care behavior of health care providers, there was a paucity of studies about their responses to illness. The few studies found will be reviewed.
Beatty (1991) studied locus-of-control, self-actualization and self-care agency among registered nurses (n=100). The self-care agency was measured by the Kearney and Fleischer Exercise of Self-Care Agency Scale (ESCA). This instrument generally focuses on the level of autonomy of the individual in health care decision-making as it pertains to health promotion. This study did not discuss the self-care behaviors of registered nurses in regard to self-diagnosis and self-treatment of common illnesses.

Nonetheless, this sample of nurses did display statistically significant differences from the norm for self-actualization on the Shostrom Personal Orientation Inventory. The locus-of-control orientation was generally internalized, but statistically significant differences from the mean existed, compared with the norm group. The sample was at the norm for exercise of self-care agency with no significant statistical difference from the norm mean.

Ladewig (1989) studied the relationships among locus-of-control, self-care agency and degree of autonomous decision-making about health care. The subjects (n=328) used were not health care providers. The six brief scenarios, with forced
choices that measured the degree of autonomous decision-making about health care, presented situations in which a doctor had already made a diagnosis and presented a treatment plan. The possible replies measured the following constructs of decision-making: expert authority, social support, and seeking additional information about a condition. Ladewig's findings that locus-of-control and exercise of self-care agency as measured by the Multidimensional Health Locus of Control (MHLC) and ESCA were more related to health and not to decision-making about specific illness situations.

More importantly, Ladewig stated that the assumption that the factors that influence decision-making about health are the same as the factors that influence decision-making about illness, may be erroneous and limiting (p.115). She goes on to suggest that previous experience with a specific illness situation, whether personally or through others, may influence autonomous decision-making.

Cockerham et al. (1980) surveyed a group of 375, predominantly male, physicians from a variety of specialties in 1976 regarding their illness behaviors. The purpose was to understand the "proper" behavior toward illness using the physician as a role model.

The instrument, developed for the study,
asked about most recent self-care behaviors in personally experienced symptoms that would normally be self-limiting. Responses were categorized by whether or not the action was physician-dependent. The physician-dependent responses included: "ordered diagnostic studies on myself", "sought care from other physician", and "treated myself with prescription drugs". The non-physician dependent actions were: "did nothing", "interrupted my normal daily routine", and "treated myself with over-the-counter drugs".

Responses to 3 of the 13 ailments resulted in a high frequency of physician-dependent action. Another four of the ailments resulted in a moderate frequency of physician-dependent action.

The physicians were divided into specialty groupings and age groups of over or under 50. The older group of physicians took more physician-dependent actions (p<.001) but there was no significant difference by specialty. The study is limited by a non-randomized sample and the tool was not piloted. Reliability was not reported. It is not known if this tool has been used subsequently. This study suggests that the expectation to seek professional assistance (a medical solution) may be reinforced by physicians through their own behavior.

Cockerham et al. (1980) suggest that
knowledge about disease tends to encourage physicians to be very sensitive to their own bodily states and to freely use the health care delivery system. Bunker and Brown's study (as cited in Cockerham, 1980) compared rates of use of surgical services among physicians, lawyers, ministers, businessmen and their spouses. Unexpectedly, physicians had the highest use rates of surgical services and wives of physicians had the highest use rates among the spouse group.

In a later study, (Cockerham, Kunz, Lueschen & Spaeth, 1986) a comparison was made between the United States and West Germany samples of the lay public in regard to symptom recognition and response. Interestingly, these findings supported the notion that as socio-economic status increases, the more likely the individual is to behave favorably toward self-control and acceptance of personal responsibility in health care matters. The poor were more likely to visit a physician than the affluent when symptoms were experienced (Cockerham, 1983; Sharp, Ross, & Cockerham, 1983; Cockerham et al., 1986) Since physicians are usually among the higher socio-economic level, questions exists about how the health care provider utilizes a health care provider for personal care. The areas of control, knowledge of and informal access to
treatment modalities, may be motivating and facilitating factors in how and why health care providers practice self-diagnosis and self-treatment in illness.

Summary of Literature Review

While the literature abounds in research in health promotion activities, there is a dirth of information related to how common illness is self-diagnosed and self-treated by the health care professional. The review of the literature for the past 20 years revealed few studies that examined health care behaviors of health care professionals. This study was a modification of the Cockerham et al. (1980) study with adaptations to the instrument, using a sample of registered nurses, although the original study was done with physicians. Even though the historical effects may be immeasurable due to the many changes in health care in the past quarter of a century, comparisons will be made between the behaviors of nurses and physicians in illness. The advent of managed care and the increased number of advanced practice nurses and physician extenders are just examples of a few of the many changes. Even some treatments philosophies are different; many common illnesses previously treated with antibiotics are now only treated symptomatically.
Despite these changes, the question that remains is what are the self-care practices of registered nurses as related to the treatment of illness. Other factors that may influence how registered nurses practice self-care in illness are: education and experience in nursing, practice environment, and nursing role. This study therefore proposes to examine the construct of self-care and how various factors effect its practice.

Operational Definitions

These definitions are closely adapted from Orem(1991).


SELF-DIAGNOSIS: the method by which an individual perceives and interprets experienced symptoms to form a definition for the existing health state. Available diagnostic tools may be used to measure physical parameters to confirm suspected conditions.
SELF-TREATMENT: The activities performed by the individual to effect an improvement or resolution of a perceived health problem. The scope of these activities are limited by access to resources (equipment, medication, etc.) that are identified by the individual as beneficial to their self-prescribed treatment plan.

NON-PHYSICIAN DEPENDENT BEHAVIORS: those actions of self-diagnosis and self-treatment that are not dependent on physician involvement in either knowledge or access. These methods are available to the lay public.

TRADITIONAL PHYSICIAN-DEPENDENT BEHAVIORS (as defined by Cockerham et al., 1980): actions requiring involvement with a physician, i.e. "sought care of my regular physician". The other physician-dependent behaviors identified by Cockerham will be included in NON-TRADITIONAL PHYSICIAN-DEPENDENT BEHAVIORS since they bypass the conventional route of diagnosis and treatment through the regular physician.

NON-TRADITIONAL PHYSICIAN-DEPENDENT BEHAVIORS: behaviors in illness that may not be available to the general public either by access or knowledge
without a physician. Nurses, however, by their increased health care knowledge are able to formulate diagnoses and treatment plans. Cockerham's physician-dependent responses of "ordered diagnostic studies on myself" and "treated myself with prescription drugs" are further extrapolated to include scenarios by which nurses can more autonomously treat themselves without contacting their regular physician.

**Research Questions**

1. Is there a relationship between the years of experience in nursing and the self-diagnosis and self-treatment behaviors of registered nurses?

2. Is there a relationship between the level of nursing education and the self-diagnosis and self-treatment behaviors of registered nurses?

3. Is the practice role in nursing related to the self-diagnosis and self-treatment behaviors of registered nurses?

4. Is the practice setting related to the self-diagnosis and self-treatment behaviors of registered nurses?

5. Is there a relationship between self-diagnosis and self-treatment behaviors and the length of time since the registered nurse last visited her regular health care provider?
CHAPTER 3

METHODOLOGY

Design

This was a descriptive correlational study adapted from a research study done by Cockerham in 1976. The descriptive correlational study design was appropriate due to the nature of the desired outcome. The registered nurses were asked to report on their most recent self-diagnosis and self-treatment behaviors for given acute, intermittent, self-limiting conditions. The objectives of this study were to investigate traditional and non-traditional self-diagnosis and self-treatment behaviors of registered nurses.

Threats to external validity are acknowledged: (Polit & Hungler, 1991)

1. sample characteristics; subjects were chosen by random number from a membership list of a professional perinatal nursing organization from a midwest state. It may be difficult to generalize these findings to nurses in other specialties and in other geographic areas.

Threats to internal validity are also
1. History: With the before mentioned changes in health care practices in the past 26 years and with the increased scope of nursing practice, most registered nurses will realize that the symptom clusters presented are self-limiting in nature and do not necessitate treatment.

2. Selection: This threat was minimized by the randomized selection of sample participants from the population of perinatal nurses.

3. Social desirability response set bias: Subjects voluntarily responded to the questionnaire and replied anonymously. Due to the possible legal and/or ethical considerations of the non-traditional self-diagnosis and self-treatment practiced, a social desirability response set bias may be in operation.

Population and Sample

An alphabetical list of 689 Michigan members of the Association of Women's Health, Obstetric and Neonatal Nurses was obtained. A probability sample of approximately 170 was sought by a simple random selection. By choosing every fourth name on the alphabetized list, the sample was gathered. If the fourth name was not a registered nurse, the next registered nurse on the list was chosen and the
count started again from there. The alphabetized list mixed the population to minimize the geographic clustering found in zip code ordered lists. The respondents gave implied consent by returning the anonymous questionnaire. The study was submitted for review by the University Human Research Review Committee and approval was obtained.

Instrument

Even though the intent of the Cockerham et al. (1980) tool was to elicit information about physician behavior in illness, the same set of symptom scenarios was used to study the extent of self-diagnosis and self-treatment behaviors in registered nurses. Some minor wording modification were made in the scenarios for simplification (Table 1). Additional modifications were made in the response choices to fit within the scope of nursing practice or the observed non-traditional methods of self-care for nurses. An "other" response with an "explain" area was provided as a possible response to each of the symptom clusters to elicit any other non-traditional forms of self-diagnosis and self-treatment.
Table 1
Description of Symptom Scenarios

Scenario A - stuffy nose with serous drainage, sneezing, tearing of the eyes, scratchy throat, malaise and general discomfort, moderate non-productive cough; no chills, sweating, pharyngeal exudate or adenopathy; temp. normal.

Scenario B - sore throat without sneezing or mucous discharge, 101°F, erythema but no exudate; no adenopathy.

Scenario C - 2-4 loose stools on each of 2 consecutive days, may or may not be associated with cramping and urgency, may have history of similar episodes as often as once/month; no anorexia, nausea, vomiting. stools not bloody or tarry, no other systemic symptoms & no suspicious food intake.

Scenario D - diarrhea of 2 days duration with 4-6 stools/day, fever between 98.6-101°F; no nausea or vomiting; frequent similar cases reported in community not related to common food source.

Scenario E - unexplained musculoskeletal aching or soreness unassociated with usual activity or trauma, duration 2-3 days, may occur at same or at other sites as often as once/month; no objective evidence of inflammation, ecchymoses, effusion, swelling or deformity, no fever, anorexia, fatigue, or other systemic symptoms.

Scenario F - recurrent non-incapacitating low back pain without sciatic radiation.

Scenario G - dysmenorrhea, moderate pain, does not produce disability, 1 day usual duration.

Scenario H - muscle pain following exercise.

Scenario I - single episode of stiff neck.

Scenario J - recurrent headache of type experienced in the past, maybe associated with occipital &/or nuchal tenderness, responds to aspirin, may be bilateral or unilateral; no systemic symptoms such as fever, dizziness, blurred vision, or localized neurologic symptoms.

Scenario K - single episode of dizziness without true vertigo lasting up to 30 seconds; no loss of consciousness and no apparent explanation.
Table 1 (continued)

**Scenario L** - intermittent epigastric distress (heartburn), relieved by belching, usually occurs within 1-2 hours after meals, occurs "now and then", no more than 1-2 times/month; no true pain, radiation, anorexia, nausea & vomiting, bloody or tarry stools, weight loss; does not awaken you from sleep, not associated with any particular food.

**Scenario M** - mild insomnia, 30-60 mins. usually pass before falling to sleep, once asleep do not awaken until morning.

**Scenario N** - mild insomnia, no difficulty falling asleep but frequently awaken 2-3 times/night for 5-10 mins.

Cockerham's (1980) descriptive study correlates age and specialty demographics with the incidence of physician-dependent actions. Because not every respondent experienced every set of symptoms, Cockerham adjusted the rates and applied a chi square distribution so that all rates would be equal. The content validity of the tool was discussed in regard to the wording of the specific scenarios. Each scenario was clearly written to dispel connotations of seriousness for each symptom. However, there was no mention of a pilot study using the tool or of reliability testing.

The tool adapted for this study was used in a pilot study with a group of 12 perinatal nurses. Additional modifications were then made to the tool and the time needed to complete the study was approximated.
A reliability coefficient for this study of .625 was determined by Kuder-Richardson 20. This formula was used because of dichotomous data. A level of .6 is adequate for group comparisons (Polit & Hungler, 1991). The first response, "did not experience this problem", was eliminated from the analyzed data.

The demographic information elicited provided information about highest level of nursing education, years of practice in nursing, role in nursing, and area of practice in nursing. Information about the length of time since visiting their regular health care provider was also sought.

**Procedures**

The investigation was conducted during early 1996. A cover letter seeking subject participation, the instruments, and a self-addressed, stamped, return envelope were mailed to the selected sample. Participants were instructed to write their name and address on the back of the return envelope if they wanted a copy of the abstract after completion of the study. Upon opening the returned envelope the completed tools were separated immediately to assure anonymity.

Responses from 50 subjects was sought to give definition to the self-diagnosis and self-treatment
behaviors of registered nurses. The data were analyzed by the SPSS statistical program for significant relationships between selected demographics variables and the prevalence of non-traditional self-diagnosis and self-treatment behaviors. The level of significance was set at .05 for all statistical tests. With ordinal data in the demographic and self-diagnosis and self-treatment variables, Spearman's Rho was used for data analysis for relationships in the research questions. Descriptive statistics were given on the demographic information about the respondents.
Chapter 4

RESULTS/DATA ANALYSIS

The questionnaires were mailed to 169 registered nurses in a midwestern state who were members of a professional perinatal nursing organization. During the collection window of four weeks, 101 completed responses were returned for a response rate of 59.7%. Eight additional questionnaires were returned without the demographic information and were not included in the study. Seven completed questionnaires with demographic information were received after the response cut-off giving an actual response rate of 68.6%.

Demographics

All of the respondents were female. Most of the respondents (96%) were below the age of 50 with age range of 40-49 being the mode (Table 2).
Table 2
DEMOGRAPHIC CHARACTERISTICS

<table>
<thead>
<tr>
<th>Age Ranges</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>30-39</td>
<td>25</td>
<td>24.8</td>
</tr>
<tr>
<td>40-49</td>
<td>44</td>
<td>43.6</td>
</tr>
<tr>
<td>50-59</td>
<td>26</td>
<td>25.7</td>
</tr>
<tr>
<td>&gt;60</td>
<td>4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Degree in Nursing Education</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>15</td>
<td>14.9</td>
</tr>
<tr>
<td>Diploma</td>
<td>12</td>
<td>11.9</td>
</tr>
<tr>
<td>BSN</td>
<td>42</td>
<td>41.6</td>
</tr>
<tr>
<td>MSN</td>
<td>26</td>
<td>25.7</td>
</tr>
<tr>
<td>PhD/DNS</td>
<td>6</td>
<td>5.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of Experience in Nursing</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>9</td>
<td>8.9</td>
</tr>
<tr>
<td>10-14</td>
<td>18</td>
<td>17.8</td>
</tr>
<tr>
<td>15-19</td>
<td>25</td>
<td>24.8</td>
</tr>
<tr>
<td>&gt;20</td>
<td>49</td>
<td>48.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Practice Role in Nursing</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.N.S.</td>
<td>9</td>
<td>8.9</td>
</tr>
<tr>
<td>N.P./C.N.M.</td>
<td>14</td>
<td>13.9</td>
</tr>
<tr>
<td>Clin.Staff-Outpt.</td>
<td>8</td>
<td>7.9</td>
</tr>
<tr>
<td>Clin.Staff-Inpt.</td>
<td>34</td>
<td>33.7</td>
</tr>
<tr>
<td>Admin.</td>
<td>18</td>
<td>17.8</td>
</tr>
<tr>
<td>Educ.</td>
<td>17</td>
<td>16.8</td>
</tr>
<tr>
<td>Not Employed</td>
<td>1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Practice Setting</th>
<th>n=100</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Clinic</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Office</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Community Health</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Combination of Settings</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Nurses in this study reflected a well-educated sample. The most frequent response was a BSN with 41.6%. However, 31.6% had earned a MSN or higher degree in nursing indicating that 73% of the respondents had a BSN or higher degree.
The sample reflected an experienced group of nursing professionals. The response of > 20 years of nursing experience was 48.5% of the sample. Only 8.9% of the sample had fewer than 10 years experience in nursing.

Practice roles within the perinatal specialty were divided. The role of clinical staff in an inpatient setting was identified most frequently at 33.7%. Seventy percent of the respondents practiced in a hospital setting.

The response to the query regarding the length of time since their last visit with their primary care provider resulted in 77.2% having visits within the last 11 months (Table 3). A majority, 94%, had visits within the last 23 months. This evidenced the existence of a relationship with a primary care provider for a large portion of the respondents.

Table 3

<table>
<thead>
<tr>
<th>TIME LENGTH SINCE LAST VISIT WITH PRIMARY CARE PROVIDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time since Last Visit</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>0-5 mos.</td>
</tr>
<tr>
<td>6-11 mos.</td>
</tr>
<tr>
<td>12-17 mos.</td>
</tr>
<tr>
<td>18-23 mos.</td>
</tr>
<tr>
<td>24-35 mos.</td>
</tr>
<tr>
<td>&gt;36 mos.</td>
</tr>
</tbody>
</table>
Self-Diagnosis/Self-Treatment Responses

The symptom scenarios developed by Cockerham et al. (1980) presented self-limiting disease conditions that would not usually require more than symptomatic relief measures available to the lay public. The respondents were instructed to go on to the next scenario if they had not had personal experience with the given set of symptoms. If the respondents did have a personal experience with a particular symptom scenario, they had unlimited choices among their remaining responses. For this study, the response choices were grouped into 3 categories. The responses were grouped similarly to Cockerham's (1980) into non-physician dependent and physician-dependent categories. Three responses were classified as non-physician dependent since these were the least intervening and most appropriate to the self-limiting nature of the symptom scenario. However, modification was made in the physician-dependent group to differentiate traditional from non-traditional self-diagnosis and self-treatment behaviors. One response was classified as traditional physician-dependent. Five responses were classified as non-traditional physician-dependent (Table 4).
Table 4
Self-Diagnosis/Self-Treatment Response Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Response #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>experienced the symptoms, did nothing.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>experienced the symptoms, changed activity, diet, etc.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>experienced the symptoms, treated with over-the-counter medication.</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>experienced the symptoms and sought the care of regular care provider.</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>experienced the symptoms and sought own diagnostic tests.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>experienced the symptoms and consulted with a non-regular physician co-worker.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>experienced the symptoms and treated with prescription drug samples available at work.</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>experienced the symptoms and treated with left-over prescription drugs from a previous episode in the household.</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>experienced symptoms and sought prescription from a non-regular physician co-worker.</td>
</tr>
</tbody>
</table>

The response groups were labeled as follows;

Group 1 responses were the appropriate self-care actions for the symptoms, given their self-limiting nature. These actions are identified as "non-physician dependent".

The Group 2 responses were identified as "traditional physician dependent" actions.

The Group 3 responses were given the title of "non-traditional physician dependent" actions.

The response choice "other" was given in
which qualitative data regarding other types of treatment plans could be given. The 24 responses in this category could be classified under existing response categories and were re-coded by the investigator. For example, "take warm showers, force fluids, exercise more, and rest" were examples that were re-coded as Response #6 (altered my diet, activity, etc.).

The non-physician dependent group was made up of 97.9% of the sample (n=93). The traditional physician-dependent group was 23.2% (n=22), and the non-traditional physician-dependent group was 37.9% (n=36). Since the respondents were instructed to mark all the choices that reflected their care, it was possible for one symptom scenario to have responses in more than one group. The possibility of multiple responses for each scenario explains the totals that surpass the sample size.

The results of the statistical tests are reported with the individual research questions.

Question 1

Is there a relationship between years of experience in nursing and the self-diagnosis and self-treatment behaviors of registered nurses?

There was little significance to the
relationship found between the self-diagnosis/self-treatment behaviors and the years of experience in nursing. The correlations ranged from -.04 to -.15.

Question 2

Is there a relationship between the level of nursing education and the self-diagnosis and self-treatment behaviors of registered nurses?

A weak negative correlation \( r = -0.2866, p = 0.005 \) was found between Group 3 and nursing education. Respondents with ADN or Diploma degrees in nursing were more likely to use the non-traditional physician dependent responses. However, post-hoc analysis showed that there was one ADN respondent with six Group 3 responses and one BSN respondent with seven Group 3 responses. When the outliers were eliminated from the group \( (n=93) \) then \( r = -0.2658, p = 0.01 \) and a weakly negative correlation still exists.

Question 3

Is the practice role in nursing related to the self-diagnosis and self-treatment behaviors of registered nurses?

There was little relationship between practice role and treatment responses. The correlations ranged from -.04 to .13.
Question 4

Is the practice setting related to the self-diagnosis and self-treatment behaviors of registered nurses?

The practice setting was not related to a particular type of treatment response. The correlations ranged from .03 to .08.

Question 5

Is there a relationship between self-diagnosis and self-treatment behaviors and length of time since last visit with her primary care provider?

The self-evident finding in Group 2 was those who sought the care of their regular physician as a response to the symptom scenarios, were more likely to have recently visited their primary care provider. (r = -.2353; p = .022)

Scenarios A (stuffy nose), B (sore throat), E (muscle soreness), and F (low back pain) had the largest numbers of Group 2 (traditional physician-dependent) responses. (Table 5)

Cockerham's (1980) original study showed that Scenarios B and F also were among the high physician dependent responses. Scenarios A and E had moderate physician dependent responses in the same study. This finding was supported to some extent by
A most interesting finding is the frequency of the Group 3 (non-traditional physician dependent) response. The 71 responses by 36 nurses in this category soundly surpassed those in the traditional physician dependent (Group 2) category. The Group 3 nurses were more likely to go outside of the formal system to access medical care when they believed it was necessary.

Some of the Group 3 responses suggests a form of collaboration between nurses and physicians in the work environment that allows for a circumvention of the normal patient-physician realtionship (Table 6). The use of prescription medication that is already available at home was also a frequent method of self-treatment.
Table 6

Response Frequency of Group 3 Behaviors

<table>
<thead>
<tr>
<th>n</th>
<th>Group 3 Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Secured diagnostic tests for myself.</td>
</tr>
<tr>
<td>18</td>
<td>Sought consult with non-regular physician co-worker.</td>
</tr>
<tr>
<td>9</td>
<td>Treated myself with prescription drug samples available at work.</td>
</tr>
<tr>
<td>19</td>
<td>Treated myself with left-over prescription drugs from a previous episode in the household.</td>
</tr>
<tr>
<td>23</td>
<td>Sought prescription from non-regular physician co-worker.</td>
</tr>
</tbody>
</table>
CHAPTER 5

DISCUSSION AND IMPLICATIONS

The purpose of this study was to determine the prevalence of various types of self-diagnosing and self-treatment behavior among registered nurses and how this may influence their use of a primary care provider. This study has been able to define and measure in a specific population of registered nurses different types of self-diagnosis and self-treatment methods. Based on the Orem (1991) theory of self-care, it was suggested that increased nursing education and nursing experience would expand the treatment options of the registered nurse beyond those available to the lay public. Depending on the clinical role and practice setting, there would be access to provider, prescriptions and/or prescription medication. Informal access to the provider system exists and is used by nurses in this study. This was indicated by 37.9% of the sample having used at least one type of the non-traditional physician-dependent behaviors.

An argument can be made that those responses in which a co-worker physician is sought for
consultation and/or prescriptions is not "self-treatment". However, a closer look at the observed interactions of this nature shows how the normal physician-patient relationship is distorted. The nurse presents her perceived symptoms to the co-worker physician and asks his opinion of a diagnosis and/or a prescription medication for treatment. There is no written record of the transaction nor is there renumeration. Follow up inquiry regarding the success of treatment may or may not happen. There may be a referral by the physician to the formal system, either him or herself or the nurse's primary care provider. The liability that the co-worker physician assumes in these arrangements is also questionable.

The symptom scenarios were designed to exemplify self-limiting, short-term acute disease conditions that normally would run their course. Variations of the appropriate responses included changing activities, like resting; changing diet; or changing exercise; and the use of over-the-counter medication for symptom control. Respondents most likely to use the Group 1 responses possessed higher levels of nursing education. This suggests that these nurses were better able to identify for themselves when "doing nothing" was the best care.

Why nurses with less nursing education chose
responses that were not only more aggressively interventional, but also outside of the traditional path for care raises an interesting issue. The nurses with more education possibly could more easily recognize the symptoms as self-limiting. Another possible notion is a higher degree of reliance on medical intervention exists in the ADN and diploma nurses' conceptualization of self-care. A possible explanation is their level of education is less grounded in nursing theory.

Regardless of the type of self-diagnosis and self-treatment employed by the nurses in this study, there was a current, active relationship between them and their primary care providers. Ninety four percent of the respondents had visited their primary care provider within the last two years. This suggests that traditional physician dependent behaviors decreases the likelihood of ongoing preventative primary care where screening such as Pap smears and mammograms could be done. It appears that the opportunities exist for their primary care providers to order these tests.

The self-care theory (Orem, 1991) is supported by these findings in so far that knowledge and skill are requisites to the exercise of self-care agency in illness. The research in this area needs to be expanded to determine how the general public
is able to practice self-diagnosis and self-treatment in illness. Cockerham et al. (1986) explored how the lay public perceived symptoms, cared for themselves in illness, and when they sought the care of a physician. However, the current prevalence of managed care suggests that even more autonomy is expected in illness self-care for the general public.

What are the factors that might predispose the average person to make more appropriate treatment plans? It is not unreasonable to imagine the lay person using left-over prescription medication from another member of the household.

Why do the socio-economically advantaged seek out the services of a physician at a reduced frequency than others? (Cockerham, et al. 1986)

Ladewig (1989) suggested that previous experience by the lay public with an illness, whether personally or through others, may influence autonomous decision-making in illness. This is supported by these findings. Nurses have ample exposure to illness and subsequent treatment plans and the findings strongly suggest that their treatment responses are generally autonomous of other healthcare providers, even to the point of using non-traditional methods to acquire prescription medication.
Limitations

The population chosen was perinatal nurses who belonged to the professional perinatal nursing organization in one midwest state. The members of the organization may not be a representative cross-section of registered nurses, or even perinatal registered nurses. Nonetheless, random sampling was used.

The demographic page was separated from the scenario questionnaire by an instruction page. It would be recommended that the demographic questions and the scenarios be adjacent or on one response sheet. Seven questionnaires were returned without demographics and could not be used.

There had not been much use of this tool previously. Reliability of the tool could have been improved if multiple responses that crossed behavior groups were eliminated by forced responses into one of the three groups if symptoms were experienced.

The internal validity threat of social desirability response set bias may be a significant limitation. Even though anonymity was preserved, some nurses may have been reluctant to admit to non-traditional physician-dependent behaviors.

The evolution of health care would have influenced those findings that were compared to Cockerham's (1980) original findings. There has been
a significant increase in the past 16 years toward self-care and less invasive management of many common acute illnesses.

**Implications for Practice**

Nurses are seen as role models in illness behavior just as Cockerham (1980) suggested that physicians were observed by others as role models. Nurses are sought casually and formally for information on self-care in illness. As role models for maintaining an ongoing relationship with their primary care provider, the nurses in this study are exemplary. But even though there appears to be a proximal relationship with a primary care provider the findings suggest that a number of these nurses went outside of the traditional system to treat themselves for acute illness.

A large number of the nurses practicing non-traditional physician dependent behaviors found physician co-workers who were willing to provide prescriptions for conditions that in essence were self-limiting. Possibly the presentation of symptoms were exaggerated by the nurses or the innocent nature of the condition was not recognized by the physician.

This suggests that nursing education, medical education and possibly employers need to recognize the non-traditional physician dependent behavior
defined by this study and address this behavior in the development of the health care professionals.

It can be postulated that there is a point of panic or impatience that impairs the critical thinking of the nurse in her own self-care. More needs to be known about how nursing knowledge level plays a role in forming self-diagnoses and self-treatment plans.

Implications for Further Research

One obvious question is what type of self-diagnosis and self-treatment would these registered nurses use in symptom scenarios that were not of a self-limiting nature. How would nursing education, nursing experience, age, clinical role, and practice setting influence their choices?

The other question is what type of treatment plans do registered nurses employ for their family members. How are the Group 3 treatment plans used with their children and/or spouses?

How do physicians and mid-level providers, e.g. nurse practitioners and physician assistants self-treat acute illnesses that are not of a self-limiting nature? Physicians can legally prescribe for themselves, however, this level of autonomy does not universally exists for the mid-level provider. How would access to medication or the informal
consultation of a colleague affect the health outcomes of these individuals?

What would the responses be if the symptom scenarios were given to a lay public population? Would there be similar Group 3 type behaviors? The influx of previously prescription-only drugs into the over-the-counter market (i.e. ibuprofen, cimetidine, minoxidil, etc.) shows the interest of the lay public in having access to a greater variety of medication for their own self-care in illness.

More study of the self-care behaviors of nurses and other health care providers in illness is needed. Is this non-traditional physician dependent behavior related to drug abuse in the nurse or physician?

Many more questions are raised by this study than are answered. As the total paradigm of health care provision undergoes analysis and revision, the issues of how self-care is to be defined and how it is accessed for all remains paramount.
APPENDICES
APPENDIX A

Permission for Use of Instrument
APPENDIX A

Margaret Hatfield
2281 Algoma Woods
Rockford, Michigan 49341

Dear Ms. Hatfield,

You have my permission to adapt and use the questionnaire that I developed and published in the article, "Minor Ailments and Illness Behavior Among Physicians" in Medical Care in 1980 for use in your thesis.

I understand that you are using this tool with a group of registered nurses in Michigan and are specifically exploring self-diagnostic and self-treatment behaviors with this group.

William C. Cockerham Ph.D.
Dept. of Sociology
University of Alabama
Birmingham, Alabama 35233
APPENDIX B

Human Subjects Review
January 9, 1996

Margaret M. Hatfield
8065 Cowan Lake
Rockford, MI 49341

Dear Margaret:

Your proposed project entitled "Self-Diagnosis and Self-Treatment Behaviors in Registered Nurses" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

[Redacted]
Paul Huizenga, Chair
Human Research Review Committee
APPENDIX C

Cover Letter
APPENDIX C

January 1996

Dear Colleague,

The many changes in the health care delivery system have given rise to new questions about how people manage their own common illnesses. Little research has been done about how people self-diagnose and self-treat common illnesses. I believe that additional understanding of self-care behaviors in nurses will expand how the concept of self-care in general is understood. Because of gaps in the knowledge about self-care behaviors in illness, I am interested in your experiences in given situations. Your name was selected at random from a list of perinatal nurses in Michigan.

Within one week, will you please complete the enclosed questionnaire and return it in the enclosed addressed and stamped envelope. Approximately 15 minutes of your time will be needed. If you would like a copy of the abstract, print your name and address on the back of the return envelope after you enclose the completed questionnaire. I will keep your questionnaire separate from the envelope to assure your anonymity.

This study is part of the requirement for my graduate program in nursing at Grand Valley State University. Completion of my thesis is expected by April 1996. I plan to share the findings through presentations and publication.

I believe this is information we do not have and your response is very important. Thank you for your assistance in this study.

Sincerely,

Margaret Hatfield, RNC, BSN
8065 Cowan Lake
Rockford, Michigan 49341
(616) 691-8371
APPENDIX D

Demographic Survey
DEMOGRAPHICS: Mark most appropriate category (Mark only one in each)

Age:
___ 20-29
___ 30-39
___ 40-49
___ 50-59
___ ≥ 60

Highest degree in Nursing Education:
___ A.D.N.
___ Diploma
___ B.S.N.
___ M.S.N.
___ Ph.D./D.N.S.

Experience in Nursing: (years)
___ 0-4
___ 5-9
___ 10-14
___ 15-19
___ ≥20

Practice Role:
___ Clinical Nurse Specialist
___ Nurse Practitioner/Certified Nurse Midwife
___ Clinical Staff (outpatient)
___ Clinical Staff (inpatient)
___ Administrative
___ Educator
___ Not Employed in Nursing

Primary Clinical Practice Setting:
___ Hospital
___ Clinic
___ Office
___ Home Care
___ Community Health

Length of time since last visit with your primary care provider:
___ 0-5 mos.
___ 6-11 mos.
___ 12-17 mos.
___ 18-23 mos.
___ 24-35 mos.
___ ≥ 36 mos.
APPENDIX E

Instructions
for Self-Diagnosis/Self-Treatment Questionnaire
APPENDIX E

INSTRUCTIONS

Listed below are symptoms that are frequently experienced by many people. Please read each description and tell us whether or not you have experienced the symptoms or problems. If you have, check all those remaining answers which describe how you dealt with the single most recent episode only. We do not need to know how many times you experienced the problem or the outcome, but we do want to know what you did about it.

RESPONSES

1) I did not experience this problem.

2) I experienced the symptoms and did nothing.

3) I experienced the symptoms and sought the care of my regular physician.

4) I experienced the symptoms and secured diagnostic tests for myself.

5) I experienced the symptoms and sought consult with someone other than my regular physician.

6) I experienced the symptoms and altered my diet, activities, etc.

7) I experienced and treated the symptoms with over-the-counter medications or procedures available to anyone.

8) I experienced the symptoms and treated myself with prescription drug samples available at work.

9) I experienced the symptoms and treated myself with left-over prescription drugs from a previous episode in the household.

10) I experienced the symptoms and sought prescription from a physician co-worker.

11) I experienced the symptoms and used other (explain) ________________________________
APPENDIX F

Self-Diagnosis/Self-Treatment Questionnaire
APPENDIX F

REGISTERED NURSES' ILLNESS SELF-CARE QUESTIONNAIRE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
<tr>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
<td>Sore throat without sputum or nausea discharge, 101°F temp, cough or no cough; no adenopathy.</td>
</tr>
</tbody>
</table>

**REGISTERED NURSES' ILLNESS SELF-CARE QUESTIONNAIRE**

**Did not experience this problem**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
<td>Did not experience this problem</td>
</tr>
</tbody>
</table>

**Experienced the symptoms and (mark all that apply):**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
<td>Experienced the symptoms and (mark all that apply):</td>
</tr>
</tbody>
</table>

**Used other (please explain):**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
<td>Used other (please explain):</td>
</tr>
</tbody>
</table>

**Page 1 of 2**

**Page 2 of 2**
LIST OF REFERENCES
LIST OF REFERENCES


