Consumer Knowledge about Managed Care: A Comparison of Lay-Consumers to Registered-Nurse Consumers

Elizabeth A. Byma

Grand Valley State University

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CONSUMER KNOWLEDGE ABOUT MANAGED CARE:
A COMPARISON OF LAY-CONSUMERS TO REGISTERED-NURSE CONSUMERS

By

Elizabeth A. Byma

A THESIS

Submitted to
Grand Valley State University
In partial fulfillment of the requirements for the
Degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

Thesis Committee Members:
Patricia Underwood, Ph.D., R.N.
Jane Sponholz, Ph.D.
Rebecca Veltman, M.S.N., RN
Orem’s self-care and self-care deficit theories provided the framework for this pilot study that compared lay and registered nurse consumers’ problems with and knowledge about their managed care plans. A distributed questionnaire assessed commonly experienced problems, reasons for problems, and preferred methods of obtaining information about their plan. The only significant difference between the two groups was that lay consumers were more likely to go to the ER without prior authorization (corrected Chi-sq. = 3.7, p = .03). The most frequently chosen reason of both groups for difficulty obtaining health care services was they did not know the rules of their managed care plan. Talking with the insurance company was seen as the most helpful source of plan information. By being aware of specific access difficulties, main reasons for those difficulties, and preferred methods of obtaining information nurses can better meet the care access needs of all managed care consumers.
Dedication

To my husband, Gary
Your love and support
mean the world to me.
Acknowledgment

I would like to thank Dr. Patricia Underwood for her invaluable help as my thesis chairperson. Her patient, calm demeanor and extensive knowledge of health care access issues and the research process got me over the hurdles.

A thank you to Dr. Jane Sponholz and Rebecca Veltman for participating on my thesis committee. Their insights and excitement for this project kept me motivated and on track.

To my parents, Ron and Mardella Hoffman: A thank you from the bottom of my heart for encouraging my academic pursuits and for walking with me through the valley.

To my very precious children, Maggie and Aaron: I love you and thank you for always reminding me that my most important job is being your Mom.
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CHAPTER 1
INTRODUCTION

If the nursing profession values the quality of care it provides, then it must also be concerned about who gets that care, and the issue of health care access must be actively explored and addressed (Stevens, 1992). Access to adequate health care occurs when personal, sociocultural, financial, and health care system-related factors come together to allow individuals, families, and communities to have reasonable, required, regular and satisfactory health services (Gulzar, 1999). Productive and timely health care access results in improved health outcomes, health status, and quality of life at the individual, family, and community level (Gulzar).

The American Nurses Association (1980) states that the nursing profession has “…leadership responsibilities in the organization, delivery and financing of health care” (p. 3). By including health care access issues in practice, research and theory, the nursing profession can affect the entities and policies that determine health care availability (Stevens, 1992). Nursing research that examines health care access must encompass multiple contexts. By exploring the social, political, cultural, historical, and economic contexts of health care access, the nursing profession can create interventions that not only change behavior and attitudes, but also change the health care system (Stevens). Since nurses work within the health care system to provide care, it is important that they understand how health insurance, as an economic factor of the health care system, can affect access to health care.
Another way of defining health care access is to describe the barriers that must be overcome to receive health care services (Khan & Bhardwaj, 1994). Economic factors which act as a barrier to health care can increase morbidity and mortality by hindering access to preventative care and early diagnosis and treatment of illness and disease (Stevens, 1992). One economic factor, health insurance, can be both a facilitator for and a barrier to health care access. While health insurance provides a financial means to afford health care, complicated insurance plans can confuse and frustrate consumers and consequently act as a barrier to health care access. With this in mind, the phenomenon of interest that was explored was the lack of consumer knowledge about managed care health insurance and its affect on access to health care.

Before the advent of health insurance as a third-party payer, the business side of health care was simple (Scandlen, 2002). A patient would be seen by a provider and would pay for the services rendered. The inception of health insurance as a third party payment mechanism to lessen the costs of illness to consumers took place during the Great Depression (Thorpe & Knickman, 2002). During and after World War II, the insurance industry grew rapidly as employers offered health insurance benefits to workers (Corder, Phoon, & Barter, 1996). This increase in health insurance coverage created “...a large pool of individual health care consumers who were unconcerned about the price of services” (Corder, Phoon, & Barter, p. 215).

Since then, general inflation effects, health care-specific inflation, population growth, increased malpractice costs, and improved technology have all contributed to rising medical costs (Thorpe, 2002; McIntosh, 2002). The health care proportion of the gross domestic product has steadily grown from 5% in 1960 to 14.3% in 2000 (Thorpe & Knickman, 2002) and is expected to rise to 17% in 2011 (Centers for Medicare & Medicaid Services, 2002). In the
1980s, many employers who were trying to slow the increase of health insurance costs switched to managed care insurance plans for their employees (Ginzberg, 1994). The percentage of employers utilizing some form of managed care health insurance plans for their employees has increased from 27% in 1988 to 93% in 2002 (Kaiser, 2002).

Managed care can be defined simply as a health care delivery system where someone other than the health care provider or the patient chooses the extent of health care delivered (Cesta, 2002). Managed care organizations include health maintenance organizations (HMOs), preferred provider organizations (PPOs), and point of service plans (POS). Managed care organizations (MCOs) had expected to decrease health care costs by making use of contracted health care providers, prescription drug formularies, pre-authorization of certain procedures and admissions, gatekeeper referrals to specialty providers, volume discounting, and denial of payment for unnecessary services (Robinson, 2001; Viner, Bellino, Kirsch, Kivela, & Silva, 2000).

According to Robinson (2001), consumers felt that managed care cost-controlling techniques interfered with health care access and were too complex. Health care providers experienced reduced professional autonomy and earning potential due to managed care restrictions (Ipsen et al., 2000). Managed care, to its detriment, “...sought to navigate the tensions between limited resources and unlimited expectation without explaining exactly how it was so doing” (Robinson, paragraph 8). Scandlen (2002) noted that consumers did not experience the full costs of health care services because of insurance coverage protection. Because of this, they did not fully perceive the increasing healthcare costs insurance companies and employers had to absorb. Therefore, they did not support the insurance companies’ and
employers' efforts to contain costs and saw those efforts as restrictive and impeding their access to healthcare.

As health care costs continued to increase, employers and insurance companies began to pass on the higher costs to consumers. This was accomplished via increased consumer contributions toward insurance premiums and higher co-payments and out of pocket deductibles (Jakelvic, 2003). In addition to passing on higher costs to consumers, the government, insurance companies, and employers all attempted to give consumers more control over health insurance resources (Robinson, 2001). In the past, it was felt that consumers should not be allowed to control their own health care resources (Scandlen, 2002). However, in this shifting political environment of healthcare change and reform, the patient's role has shifted from non-consumer to consumer of health care cost and quality information (Issel & Anderson, 1996).

Even though there has been an influx of health care related information from the Internet and the media, consumers have still not been able to successfully navigate managed care. The Internet and the media have provided a vast amount of information, but they have failed to communicate that information in a way that supports decision-making (Valanis, 2000). Additionally, consumers are varied in their abilities to navigate complex health insurance systems due to differences in education, financial means, and cultural preparedness (Robinson, 2001). Consumers who experience barriers in health care due to the increased complexity of the health care system need an advocate to assist them in managing health care delivery issues (Valanis, 2000).
Inception of health insurance during the Great Depression

After WW II health insurance increasingly offered as a job benefit

Increasing use of managed care to control rising health care costs

Health care costs continue to increase… more costs passed onto consumers

Consumers given more control over health insurance resources

Rising health care costs

*Figure 1.* Flowchart depicting changes in the health insurance system.
Nurses can play an integral role as consumer advocates for health care system issues (Valanis, 2000). "Nursing focuses on human beings as they relate to their environments and as they experience and respond to events or situations related to health and illness" (Valanis, p. 13). Advocacy entails working with or for a person or a system to produce positive outcomes for the person or system (Brill & Kilts, 1986, as cited in Hicks, Stallmeyer, & Coleman, 1995). The key functions of a nurse advocate are to inform and then support the decision that is made by the patient (Hicks, et al., 1995). In order to take on this role of nurse advocate in relation to the issue of managed care insurance, the nurse must be knowledgeable, informed, and aware of outside resources to assist and educate clients (Hicks, et al., 1995).

Nurses have been heavily involved in patient education for many years. Nurses are used to educating patients about health and disease issues, but they should expand that education to also include the financial aspects of health care and health care consumerism (Lamothe, 1994; Larson-Dahn, 1998). In these times of rising health care costs, it is financially imperative that consumers utilize their health care resources in an informed and judicious manner. This is especially true for managed care insurance consumers as "...a primary feature of any managed care organization is the education of its members as it strives to reduce its members’ needs for expensive health care services" (Hicks et al., 1993, p. 61).

Informed consumers who understand their options within a specific managed care plan are more accepting of innovative approaches in managed care and are more likely to participate in their own care (Mayer, 1998). However, some consumers are not even aware of their lack of knowledge about their managed care plan and potential access problems until a health care need arises (Issel & Anderson, 1996; Lamothe, 1994). Nurses working in the ambulatory care settings
have been expected to be able to assist these clients with insurance issues (Lamothe, 1994). Clients presume that since nurses are members of the health care team, they are familiar with managed care insurance. However, research has shown that nurses can have a lack of knowledge of insurance issues and this can affect them in their professional role (Spitzer, et al., 2002; Lindeke & Chesney, 1999). This could be due to the fact that many nurses, especially those in hospital staff nurse positions, have very little exposure to insurance matters. In large clinical settings, case managers and business office personnel usually address these issues.

In addition to being affected professionally by a lack of knowledge about managed care plans, nurses have also been affected personally. Nurses and their families who are enrolled in managed care plans as consumers can be affected by a lack of knowledge about their managed care insurance plan. Nurse-consumers could be expected to understand managed care simply because of their education and professional role. Employers of nurses may not give adequate managed care insurance education to nurses because of the expectation that they have been taught about insurance issues in nursing school.

The purposes of this study were to explore the issue of lack of consumer knowledge about managed care by identifying health care access difficulties that lay and registered nurse managed care consumers experienced; to assess the differences between the two consumer groups in the primary reason that they attributed as the cause of health care access difficulties; and to determine the sources of managed care information that consumers perceive as being most helpful to improve their knowledge about managed care.
CHAPTER 2
CONCEPTUAL FRAMEWORK & REVIEW OF LITERATURE

Conceptual Framework

Orem’s theory of self-care and theory of self-care deficit were selected to examine the problem of lack of consumer knowledge about managed care insurance. Both theories are part of Orem’s Self-Care Deficit Theory of Nursing (SCDTN) (1995). As a general theory, the SCDTN has been used and accepted by practicing nurses, nurse educators and nurse researchers (Taylor, 2002). Orem’s search to determine the domain and boundaries of nursing as a field of practice and knowledge led to creating and expressing the SCDTN (Orem & Taylor, 1986). This search for meaning was directed toward three questions: 1) What do nurses do and what should nurses do as practitioners of nursing? 2) Why do nurses do what they do? 3) What are the outcomes from what nurses do as practitioners of nursing?

The SCDTN consists of three separate theories: the theory of self-care, the theory of self-care deficit and the theory of nursing systems. The theory of self-care explains and describes why and how people care for themselves and their dependents. The theory of self-care deficit describes why people can be helped through nursing. The theory of nursing systems details the relationship between nurse and patient and what must be brought about in order for nursing to take place (Orem, 1995; Taylor, 2002). Nursing takes place when, because of a personal health situation, one is unable to personally meet all of his or her own or a dependent’s care needs. Because this study focuses on consumers’ perceptions about problems encountered in accessing care the theories of self-care and self-care deficit were used as its foundation.
The Theory of Self Care

The theory of self-care describes how self-care and dependent-care are deliberate, learned, human regulatory functions that supply and maintain materials and conditions to sustain life (Orem, 1995). Materials essential to life include air, water, and food. Conditions such as personal hygiene, excretory functions, waste disposal, and maintenance of a normal body temperature all contribute to a life-sustaining environment. These materials and conditions also keep physical and mental functioning and development within parameters compatible with conditions essential for life and for wholeness of functioning and development (Orem).

Orem (1995) describes self-care as the personal care an individual deliberately performs, or has performed for him or her (dependent care) each day to meet regulatory and developmental requirements. The reasons self-care takes place are termed self-care requisites. Self-care requisites are understood “...as expressions of action to be performed by or for individuals in the interest of controlling human and environmental factors that affect human functioning and human development” (Orem, p. 108). Therapeutic self-care demand is the specific type and amount of self-care that an individual needs in order to meet the self-care requisites. Self-care agency is the ability to meet the therapeutic self-care demand and is dependent on one’s life experiences, state of health, culture, knowledge level and learning ability (Orem). Dependent care concepts were added after the original inception of the SCDTN and these concepts are comparative to their self-care counterparts (Taylor, Gedon, Isaramalai, & Wongvatunyu, 2000).

The Theory of Self-care Deficit

The theory of self-care deficit maintains that nursing is required when an individual is affected by health-related or healthcare-related issues that limit the ability to perform self-care or dependent care (Orem, 1995). Because of these limitations the affected individual is unable to
know present or future demands for regulatory care for themselves or dependents (Orem). Ongoing regulatory care that controls and manages functioning and development can also be affected. A self-care deficit occurs when one’s self-care agency is not able to meet the therapeutic self-care demand. A self-care deficit may be partial or complete, short-lived or permanent. An individual can overcome or eliminate a self-care or dependent care deficit if willing and capable. The ability to overcome or eliminate a care deficit is affected by age, developmental state, life experience, sociocultural influences, health, and available resources (Orem).

*The SCDTN and Barriers to Care*

Self and dependent care are purposeful actions which consist of knowledge that is gained from learning experiences in the home, at school and from practical experiences in self-care or dependent care (Orem, 1995). Knowledge of one’s state of health, knowledge of self, and knowledge of physical and social environments are important contributors to the provision of self-care. To gain this knowledge, observations and judgments must be made. This leads to an understanding of self and dependent care requirements and this in turn may lead to the realization that a care deficit exists.

Self and dependent care and the realization of a care deficit may result in initiating contact with the health care system. This externally directed behavior consists of behavior which attempts to control the environment, bring about contact and communication with others, and begin a search for and use of resources (Orem, 1995). Potentially, managed care restrictions and the lack of knowledge about managed care restrictions could impede the search for and the attainment of health care resources.
The inability to obtain health care resources due to lack of knowledge about managed care plans can be considered a self-care or dependent care deficit. This is because there is an inability to obtain health care resources via managed care health insurance due to lack of knowledge about the managed care system and its restrictions. The self-care agency (proficiency in navigating the managed care system and its restrictions) is not adequate, which then produces a self-care deficit. Self-care agency is a function of prior experiences with the managed care plan, education that has been given regarding the plan, cultural beliefs about insurance, and learning ability (see Figure 2).

![Diagram of Self-Care Agency](image)

**Figure 2.** Self-care agency as a function of prior experiences with the managed care plan, education that has been given regarding the plan, cultural beliefs about insurance, and learning ability.
Access to health care is imperative as part of on-going self and dependent care. In the
managed care system, even if services are offered, the self-care and dependent care agency may
not be able to meet the demands of managed care restrictions and access to care will be hindered.
It is knowledge and experience that provide and support the care agency (Orem, 1995). Lack of
knowledge about one's managed care plan contributes to a self and dependent care deficit. The
dimensions of this deficit must be understood as a basis for working to enhance self-care agency
and for guiding further research to improve consumer access to health care. Specific knowledge
limitations, which are a reflection of limitations in self-care agency and perceived difficulties in
accessing health care, which exemplify a self-care deficit, were explored in this study. In
addition, consumer preferred sources of managed care insurance information to improve
knowledge, as requisites for self-care, were identified.

Review of Literature

Current literature has addressed the issue of lack of consumer knowledge about managed
care plans. The review was organized in relation to topics of interest as expressed in the purpose
statement which includes lay-consumer and nurse-consumer knowledge about managed care
plans, presence of and reasons for health care access difficulties using managed care insurance,
and consumer-preferred sources of managed care information to increase knowledge.

*Health insurance plan knowledge*

*Lay consumer.* Nelson, Thompson, and Davenport (2000) examined the validity of health
insurance survey responses of 351 adult subjects by comparing the subjects' responses to actual
insurance company plan information. Data were gathered via telephone surveys that were
followed-up by in-person interviews. The surveys and interviews examined the presence of
health insurance, source of insurance, length of enrollment, and whether the insurance plan was managed care or traditional fee-for-service. Survey questions were developed and modified for telephone use from the 1997 Behavioral Risk Factor Surveillance System survey (BRFSS). The BRFSS survey was developed in 1995 by the Centers for Disease Control and Prevention. The BRFSS was cognitively and field-tested before use and has been used in other studies. However, the researchers of this study did not include any BRFSS reliability measures. Results of this present survey showed that 97% of the subjects were able to correctly state if they did or did not have health insurance. Subjects who had private insurance were able to identify with 93.8% accuracy the source of their insurance. While 6.6% of respondents stated they had insurance from a public source, the prevalence of public insurance was actually 19.1% according to insurance data. Overall estimates for self-reports of enrollment in managed care at 76-79% were comparable to actual health insurer data (70%). However, 84.2% of those who were enrolled in fee-for-service plans incorrectly thought they were in managed care plans. Only 33.1% of respondents correctly reported length of time enrolled in current insurance plan due to overestimating length of enrollment. The authors concluded that consumers generally have a poor understanding of their insurance benefits and coverage. The authors suggested that consumer survey responses that address insurance benefits and coverage should be corroborated with actual insurance company information to ensure validity before consumer responses are used for further research and policy development. Limits to this study include restricting participants to those with telephone service and validity concerns regarding assessment of type of insurance (managed care vs. fee-for-service).

Marquis (1983) also compared consumer survey responses to actual insurance company information. Insurance information was gathered from 3,218 families in six different cities via a
face-to-face interview and followed up by a self-administered questionnaire. Part of the experimental group in each of the six cities had taken part in the Rand Health Insurance Study (HIS) (Newhouse, 1991), which was a social experiment in health care financing. The purpose of the study was to examine how accurately consumers could describe their insurance benefits and the reasons for insurance plan knowledge variation among consumers. Results showed that several factors affected the accuracy in answering questions regarding insurance plan coverage in hypothetical health care treatment examples. Subjects who were enrolled in a pre-paid insurance (like managed care) had the highest percentage of correct responses as opposed to those who had reimbursement-based insurance with a deductible. All subjects had a higher percentage of correct responses regarding hospital coverage as opposed to out-patient services. Accuracy increased when insurance benefits were consistent, simple, and included few parameters. Accuracy increased as exposure to insurance plan information increased. The author concluded that efforts to simplify benefit structures and educate consumers should be encouraged. The author recommends further research to examine how access to care and care utilization is affected by inadequate understanding of health insurance plans and if use of care services can increase consumer knowledge of insurance benefits. Weaknesses of this study include validity concerns about questions that were used to ascertain knowledge about coverage of outpatient services and a possible Hawthorne effect among the HIS participants in the experimental group.

Garnick and associates (1993) used data from two different, pre-existing studies to retroactively assess consumer knowledge of services covered by private and subsidized insurance plans. The first study was a national survey of 1,093 privately insured individuals that the researchers utilized to assess knowledge of six different health care services. These services included hospitalization, doctor’s visits, mental-health services, alcohol and drug abuse
treatment, prescription drug coverage, and long term care. Results showed that most of the national survey respondents were able to correctly state that they had hospitalization and doctor-visit coverage. However, they under-reported coverage for mental health benefits (54%), alcohol and drug abuse treatment (43%), and prescription drug coverage (71%) while over-reporting long-term care coverage (63%). The second study group consisted of evaluation surveys of 334 consumers who were enrolled in a New York State subsidized managed care insurance program. Retroactive data examination assessed knowledge of out-of-area emergency services, annual physical examination, and choice of hospital. Overall, less than a third of these enrollees were able to answer all three questions correctly (average 18.5%). The respondents were most knowledgeable about coverage for an annual examination (average 65.1%). These results were even more surprising because there had been an extensive effort to educate the subsidized insurance consumers at enrollment. The authors concluded that although education may be provided, it needs to be relevant and understandable to consumers. A limitation to this study was that some of the assessed services for both surveys could be perceived as infrequently needed. Therefore, consumers may be less motivated to learn about them. The authors recommended assessing knowledge of services of potentially greater interest, such as choice of providers or high-technology procedures.

Nurse consumer. Spitzer et al. (2002) investigated Swiss nurses' knowledge level of Switzerland's health care reforms. The study sample consisted of 74 registered nurses from a variety of settings. Research survey questions were formulated to determine the nurses' knowledge of health care reforms at the federal and regional level and how employment setting, work role, and education level affected their level of knowledge. Results showed a moderate to high level of knowledge of federal and regional reforms with the proportion of correct answers at
72% and 71% respectively. Kruskal-Wallis tests were performed to determine knowledge level differences among the different nurse groups. Community nurses showed a higher overall level of knowledge compared to their hospital and education counterparts. There were statistically significant differences among the three different nurse role groups when examining the level of knowledge of the federal \((p=0.04)\) and regional reforms \((p=0.07)\). Nurses who were in a managerial position had more knowledge at a statistically significant level \((p=0.02)\) over their staff nurse colleagues. Logistic regression analysis results showed that working in a hospital setting \((-1.15)\) and having a university education \((-1.12)\) had a negative affect on achieving a high knowledge score. The authors revealed that this study took place during a health benefit election. Because of this, there was increased public education on health policies and reform issues. Study participants as part of the population were exposed to the public education and this may have been an extraneous variable. This study emphasizes the need for nurses to be knowledgeable about current health policies and reforms in order to implement change in health policy, access and client rights. It was surmised that nurses who have more contact with insurance issues, such as community nurses, would have more knowledge of health policy issues.

Despite the importance of nurses being knowledgeable about health insurance issues, many nurses feel unprepared to deal with these issues. Utilizing a qualitative method, Lindeeke and Chesney (1999) examined the reimbursement concerns of advanced practice nurses (APNs) in one Midwestern state with high managed care penetration \((n=368)\). This study was part of a larger qualitative study that examined perceived barriers to advanced practice nursing. Study participants were encouraged to describe how these barriers affected their practice. Content analysis and subsequent categoric and thematic coding of the narrative-style survey revealed three reimbursement-related themes. These were lack of APN recognition by managed care
organizations and payers; lack of APN knowledge and education about reimbursement; and
difficulty in coping with the rapid pace of change of reimbursement policies and procedures.
The researchers noted that a clear theme of this study is the need for APN knowledge and
education about managed care. The education should take place in graduate school and should be
provided at continuing education seminars. Increased knowledge of managed care issues enable
the APN to be more productive, a better client advocate, and be in a more effective position to
lobby for higher compensation for APNs.

Access Difficulties. In the early 1990s, Medicaid began to use managed care plans as a
way to control escalating health care costs. In Tennessee, multiple managed care companies
were utilized under the TennCare program. TennCare was unique at the time because it required
Medicaid recipients to enroll in only managed care plans. Research studies were conducted to
determine how well TennCare was meeting the health care needs of their enrollees.

In one such study Young et al. (1997) examined TennCare enrollee understanding of how
to gain access to emergency department (ED) services. A convenience sample of TennCare
enrollees for this two-part study (Group 1 n=250, Group 2 n=199) was recruited while waiting
for services at a large university hospital ED. This prospective survey was conducted by medical
students in rotating shifts and included demographic data, the name of the managed care
organization (MCO), the length of enrollment, name of the primary care provider (PCP), whether
they had ever seen the PCP, whether they had attempted to call their PCP before coming to the
ED, and whether they were able to reach the PCP. The survey was conducted verbally and
excluded those too ill to participate, those with language barriers, and those who refused. Overall
results showed that most of the subjects in both groups knew the name of the MCO under which
they were enrolled. An increase in PCP name recollection, having had a PCP visit, and
contacting the PCP before coming to ER all increased from Study 1 to Study 2, which was a 1 year time span. While 93% of group 2 participants knew they were supposed to call, only 32% did. Subjects who knew their PCPs name were statistically more likely to be aware that they had to call their PCP before going to the ED (Group 1 p=0.025, Group 2 p<0.0001). Subjects who had visited their PCP were more successful in contacting the PCP before ED use than those who had never visited (Group 1 p<0.0003, Group 2 p<0.0001). Over half of all of the subjects were unaware that if the ED visit was not a true emergency and they had not called the PCP first, they could be held financially responsible. The authors emphasized that these results point to the need for individualized consumer education regarding managed care plans to improve access to care, improved accessibility and availability of PCPs, and health care provider MCO education so providers can educate clients about insurance restrictions in the clinical and ED setting. One limitation of this study is that the convenience sample was restricted to a ED at one university hospital. Therefore, the results of this sample may not be indicative of the entire TennCare population. The researchers tried to control for this by scheduling surveyors at regular intervals every day to allow for random selection. Also, accuracy of responses might have been artificially inflated because participants might have overheard insurance information while registering in the ED. The researchers were aware of this, but did not want to interview subjects before registration and cause them to leave because the subjects feared the care might not be covered by insurance.

In another TennCare related survey Rocha and Kabalka (1999) compared health care access, barriers to health care, and overall health care satisfaction between TennCare recipients, the uninsured, and the privately insured. A probability community sample (n=103) of low-income subjects and a non-probability convenience over-sample (n=61) of only TennCare recipients were collected. The probability community sample was analyzed according to
demographic data, insurance status (TennCare, non-insured, and private insurance), and health care utilization variables such as access difficulties. Chi square and analysis of variance tests were completed to determine significant differences between the three insurance groups. Of interest were significant differences between the three insurance groups on access and barriers variables. TennCare recipients were less likely to have a regular physician (65% vs. 90% of those privately insured), and also reported increased difficulty in finding a doctor and getting medication. Multivariate analyses of TennCare recipients in both study groups were completed to determine satisfaction with TennCare. Slightly over half of the group rated TennCare worse than what they had before TennCare was implemented. Qualitative analysis of additional comments was performed. The themes consisted of difficulty with prescriptions; access to specialists; emergency care; confusion regarding plan specifics; and difficulty getting information from TennCare. A weakness of this study is that both study groups were from one eastern Tennessee urban area and therefore, the survey results may not be indicative of the TennCare population as a whole. The authors concluded that recipients should be educated regarding their rights and responsibilities to decrease confusion, improve access to care and to ensure that quality care is provided.

In a non-TennCare survey, Viner, Bellino, Kirsch, Kivela, and Silva (2000) interviewed 104 managed care consumers who had been denied authorization to receive care at an emergency department (ED). All of the subjects had been triaged by a nurse in the ED before staff called the managed care organization (MCO) for pre-authorization to proceed with treatment, which resulted in denial of authorization for treatment. A telephone survey was performed within one to eight weeks after the ED visit to determine the reason for the ED visit, knowledge of access to care and the pre-authorization process, alternative care that was offered, and patient outcomes.
Results showed that 83% of the subjects had gone to the ED because they believed their problem to be an emergency. Sixty three percent of the subjects verbalized a lack of knowledge of the need for pre-authorization and 86% of the subjects did not know that the MCO could refuse to pay for unauthorized ED visits. The majority (77%) of alternative care that was suggested consisted of an offer of an appointment within 24 to 48 hours. However, 11% of the subjects did return to the ED and 4% were then admitted to the hospital. Results showed an overall lack of knowledge regarding pre-authorization and access to ED services. Although the majority of the subjects did receive care within 24 hours of leaving the ED, the experience was bewildering and led to frustration and dissatisfaction. One limitation of this study is that the survey population was small and involved a group of MCO patients at only one institution. Additionally, the survey only involved patients who decided to leave the ED. The authors recommended that future studies might want to compare the group that left to those who chose to stay, despite the chance that the MCO may refuse payment.

**Sources that improved knowledge about managed care**

*Consumer preferred.* Utilizing the 1995 Navigating the Changing Healthcare System probability survey, Issacs (1996) examined consumers' perceived knowledge needs related to their managed care and traditional fee for service insurance plans. The author did not present any instrument reliability statistics. The survey sample, which included 1,081 adults aged 21 and above, was obtained through a computer assisted telephone survey. The survey results showed that 63% of respondents did not feel they had a good understanding of differences between fee-for-service and managed care health insurance plans. In spite of this, 70% of respondents were satisfied with the health care decisions they had made in the past. Respondents determined that they needed “a lot more information” on specialists (38%), physician quality (36%), and range
of services covered by the health plan (30%). In addition, one in four respondents desired "a lot more information" on out of pocket costs, exclusion of pre-existing conditions, and choosing a physician. The respondents' most trusted sources for insurance coverage information were physicians (62%), and friends and family members (58%). Sources that were most distrusted were the government (49%), the media (49%) and advertisers (52%). Only half of the respondents said they read the insurance plan information materials given to them, but four out of ten thought speaking directly with a health plan representative would be helpful. These same respondents also expressed an interest in after hours and weekend opportunities to ask plan questions and to be able to ask those questions anonymously. Subjects in this study recognized the need for additional information, despite the fact that a high number were satisfied with their insurance plan. A weakness of this study was that the sample was overwhelmingly white (83%) and over half (58%) had attended college. The author broke down the sample group by type of insurance from the subjects’ responses. As documented in other articles in this literature review, subject responses regarding type of insurance may be incorrect. With a sample group of this size it may have been difficult to verify type of insurance, but this potential variable was not mentioned or addressed. The author surmised that employers, providers, insurance companies, and the government must assess what information consumers want and the best way to present it so that information is understandable and usable.

Nurse-created. Larson-Dahn (1998) created an education outreach program for a managed care organization and then examined if the program would decrease unnecessary clinic and emergency visits. A survey was developed to assess self-reported use of health care services and an understanding of managed care. The subjects were enrollees in a managed care organization and were clients from two different clinics owned by the managed care
organization. An initial educational outreach phone call was made to enroll subjects in the experimental group for a pre-test survey (n = 55). This experimental group was then provided with educational literature about a consulting nurse service available during business hours who could provide education, self-care instructions, and triage services, and a emergency department phone triage service for after-hours and weekends. A post-test survey revealed a self-reported reduction in visits to the primary care physician from 89% (n=55) to 78% (n=18). Survey respondents demonstrated an increased understanding of managed care from 56% to 100%. The use of the consulting nurse service for the experimental group increased from 12 contacts (pre-test) to 169 (post-test). The small post-test group (n=18) was attributed to the difficulty of reaching people during business hours for follow up. A comparison of "unnecessary utilization of the emergency department" reports for the 6-month period before the study and the 6 months during the study showed a reduction of visits for the experimental group from 20 to 13. In comparison, the number of unnecessary emergency department visits for the entire managed care organization increased from 228 to 283. There were no statistical significance testing results documented. A small sample size was a limitation in this study. Additionally, this program was limited to one managed care organization. However, this program could be used as a guide for other organizations. The researcher created an integrative program that improved consumer awareness of resources that were available. This enabled consumers to take an increased responsibility for their own self-care and utilize health care resources in a more appropriate manner.

Summary

Although lay-consumers generally know if they do or do not have health insurance, they were unable to consistently provide other key insurance information (Nelson, Thompson, &
Davenport, 2000; Garnick, et al., 1993; Marquis, 1983). These studies describe the limited knowledge that managed care consumers can have. They also emphasize the importance of pertinent and consistent consumer education and simplification of insurance plans. Consumer education about managed care and access to a phone triage nurse can decrease inappropriate utilization of emergency services and increase understanding of managed care. Health care access is affected by a lack of knowledge of managed care restrictions and a lack of an established relationship with a primary health care provider (Young et al., 1997; Rocha & Kabalka, 1999).

It could be argued that the results of Young et al. (1997) and Rocha and Kabalka (1999) were to be expected since they examined a Medicaid population which would more likely be poorer, less educated and, therefore experience more barriers to care. However, Viner, Bellino, Kirsch, Kivela, and Silva (2000), who interviewed privately insured individuals, found that they also experienced access difficulties because of a lack of knowledge about managed care plans. Access difficulties may lead to an increase in out-of-pocket costs, frustration, dissatisfaction, and delayed care. All three studies concluded that a lack of knowledge about managed care insurance plans hinders access to care, regardless of income level.

In order to address the issue of lack of knowledge about managed care plans research has explored the information needs of consumers. Isaacs (1996) found that over half of respondents felt they did not have a good understanding of the differences between traditional health insurance and managed care insurance. While 70% of survey respondents were satisfied with the health care decisions they had made in the past, around one third of respondents felt they needed “a lot more information” on specialists, physician quality, and health plan services. These same respondents expressed a desire to have access to insurance plan representatives and anonymous
after hours opportunities to ask plan questions. Isaacs found friends, family members, and physicians were the most trusted sources of insurance plan information. These results convey the importance of health care providers who are knowledgeable about health insurance issues so they can be an information resource.

According to Spitzer et al. (2002), all nurses should be knowledgeable about health policy and reform issues so they can initiate change with in the health system. In addition, nurses who are in an APN role are affected professionally by a lack of education and knowledge regarding reimbursement issues (Lindeeke & Chesney, 1999). Knowledge of managed care plans can empower the APN to be more productive, better reimbursed, and a more effective client advocate (Lindeeke & Chesney). While both of the research articles that addressed nurse-knowledge of insurance issues only explored the professional ramifications of a lack of knowledge, it can be surmised that a lack of knowledge of managed care health insurance could also affect the nurse in his or her personal life.

This study will contribute to the body of knowledge by examining managed care knowledge of lay consumers and nurse consumers as guided by the theories of self-care and self-care deficit. An extensive literature review found very few research articles on nurse knowledge of managed care plans in the professional role, and none in the personal, nurse-consumer role. It is important that all managed care consumers, including registered nurses, have access to health care that is not impeded by a lack of knowledge. The issue of managed care and consumer knowledge about managed care plans is very important as insurance costs continue to rise and consumers are being given more control over their health plans. Without knowledge, managed care consumers may not be able to take full advantage of their health plans, or be cognizant of their responsibilities and rights.
By utilizing Orem's theory of self-care, and theory of self-care deficit (1995) to guide this study, the problem of lack of consumer knowledge about managed care plans can be presented as a potential contributor to a self-care deficit and explored as a nursing concern. The literature review described the knowledge deficits that consumers and nurses have about managed care insurance and it details the specific access difficulties managed care consumers experienced because of the knowledge deficit. The literature review also included research that revealed consumer-preferred sources and topics of managed care plan information. The study variables, which emerged from the literature review, can then be associated with concepts from the theory of self-care and the theory of self-care deficit (see Table 1).

Table 1

*Theoretical Concepts with Study Variables*

<table>
<thead>
<tr>
<th>Orem's concepts</th>
<th>Study variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Factors contributing to self-care agency</td>
<td>• Knowledge about or understanding of managed care insurance plan</td>
</tr>
<tr>
<td>• Indicators of self-care deficit</td>
<td>• Specific managed care knowledge limitations</td>
</tr>
<tr>
<td></td>
<td>• Perceived difficulties of accessing health care</td>
</tr>
<tr>
<td>• Requisites for self-care</td>
<td>• Consumer preferred sources of managed care information to increase knowledge about their managed care plan</td>
</tr>
</tbody>
</table>

*Research Questions*

1) What types of health care access difficulties do lay and registered nurse managed care consumers experience and associate with knowledge about or understanding of their managed care plan? 2) What differences are there between the two managed care consumer groups in the
reasons they attributed for difficulties in obtaining health care services? 3) What sources of managed care information do consumers perceive as being most helpful to improve their knowledge about their managed care plans?

Definitions of Terms

*Managed care.* A type of health insurance that attempts to control and coordinate the use of health care services by its insured members in order to contain health care costs and improve health care quality (Pohly, 1997).

*Knowledge about or understanding of managed care insurance plan.* Being aware of and familiar with the restrictions and guidelines of one’s managed care insurance plan so that health care services can be received.

*Health care access.* The ability to obtain needed health care services.
A two-group comparison, descriptive research design was employed for this study. According to Polit and Hungler (1999), a descriptive design can be used to describe the existence or absence of the phenomenon of interest. A disadvantage of descriptive research design is that it will not clarify cause-and-effect relationships among variables. The intent of this study was not to look for a cause-and-effect relationship between variables. Rather, this study examined the presence and reasons for health care access difficulties due to a perceived lack of knowledge about managed care plans; differences between the two study groups in the reasons they attribute as the cause of health care access difficulties; and helpful sources of managed care information. Descriptive research can be useful as a preliminary method to gather information about a little-known topic. The new data can then be used to foster additional research (Polit & Hungler).

A mailed/distributed questionnaire was used to collect the data. An advantage of questionnaire research is that it is flexible, cost effective and widely applicable (Polit & Hungler, 1999). An additional benefit of a mailed questionnaire is that it prevents interviewer bias, where the subjects' responses are affected by the human interaction between the interviewer and respondent (Polit & Hungler). However, data collected by a questionnaire can be superficial and equivocal. Because of these issues, questionnaires must be created with care to ensure the questions are clear, concise, and simple.

Another potential problem with utilizing a mailed questionnaire can be an inadequate return of the completed questionnaire. In order to compensate for this potential problem, a higher
number of questionnaires than the minimum that was needed was distributed. Since the questionnaire was created specifically for this study and had not been previously tested, this research was viewed as a pilot study. The pilot study format allowed for a smaller scale study to assess the instrument and the data collection plan (Polit & Hungler, 1999).

Managed care consumer satisfaction can be affected by preconceived opinions about managed care (Reschovsky, Hargraves, & Smith, 2002). Participants in the present study may have had preconceived opinions about managed care that were negatively influenced by media reports. These opinions could have affected the study participants’ perception of a knowledge deficit. While prior opinions could not be controlled for, the research tool did not include any language that could have been perceived as negative toward managed care as this could have increased any existing negative opinions.

In order to control for differences between managed care plans every effort was made to have all study participants enrolled under the same type of managed care (such as an HMO or PPO) and under the same managed care organization (MCO). This controlled for differences between MCOs in their efforts to educate their enrollees. The researcher attempted to control for this by using only one lay consumer employer and only one nurse consumer employer. It may have been impossible to control for this completely since one MCO can offer different employer-individualized plans whereby any employer can choose different coverage based upon budget constraints and employee needs.

Education level differences within each group may have affected perceived lack of knowledge of managed care plans. The lay consumer group may have varied in job title from factory worker to management and in education level. The registered nurse group varied from bachelor degree prepared to associate degree and diploma prepared. Random sampling within the
lay-consumer group attempted to control for differences in that group. Assurance of anonymity in the cover letter of the research tool attempted to control for participant fear of employer reprisal. Participant privacy was protected by not including identifying information in the survey and by encouraging participants to not include their name on the survey.

Sample

The accessible populations for this study were all lay and registered nurse-managed care consumers who were employed at two pre-selected settings, which were available to the researcher and met designated criteria. The settings for the study included a hospital facility and a non-healthcare-related, manufacturing company.

The hospital facility was a 213 bed private hospital in the Midwest that employs 400 registered nurses. The nurse-consumer accessible population included all registered nurses, regardless of educational preparation, that were actively employed at this hospital and enrolled in the hospital’s health maintenance-type managed care insurance as their primary health insurance. Primary health insurance was defined as the insurance that is billed first when health care services are used.

The lay-consumer accessible population was from a non-health care related manufacturing company in the Midwest that offered health maintenance-type managed care insurance for their employees from the same MCO that the nurse-consumer group was enrolled in. The accessible population included all non-health care related active employees who were enrolled in the company’s health maintenance-type managed care insurance as their primary insurance.

Since this was a pilot study, a smaller sample size of at least 40 per group was acceptable. Because the response rate for questionnaires can tend to be low (Polit & Hungler, 1999) the
researcher planned to distribute a total of 120 questionnaires to each group. It was felt that by increasing questionnaire distribution three-fold to 120 per group, the researcher would compensate for a potentially low response rate.

**Instrument**

The researcher created the instrument that was used for this study (Appendix B). The literature review did not yield an instrument that would measure the variables of interest. The instrument was a two-page, self-administered questionnaire comprised of fixed alternative and multiple choice questions, five-point rating scales, and one open-ended question. The questionnaire was developed and organized according to the research questions and the study variable.

**Research Question 1**

What types of health care access difficulties do lay and registered nurse managed care consumers experience and associate with knowledge about or understanding of their managed care plan?

**Study Variables**

1. Actions inconsistent with the managed care insurance plan that may reflect a knowledge deficit and may lead to health care access difficulty (survey questions 1-5).

These variables were measured with fixed alternative questions to ascertain if specific health care access difficulties were experienced while enrolled in the managed care plan. The results of these questions were then broken down by sample group and compared for differences in responses. These questions were fixed alternative questions with two possible responses, being “yes” or “no” for each of the five questions.
Research Question 2

What differences are there between the two managed care consumer groups in their reason they attributed for difficulties in obtaining health care services?

Study Variable

1. Primary reason given for perceived difficulties of accessing health care (survey question 6).

   This variable was measured with a fixed alternative question to determine the reason the respondents perceived as being the cause of any access difficulties. The three possible responses included no knowledge of rules, too rushed to get prior authorization, and that incorrect information was received from a health care provider or insurance representative.

Research Question 3

What sources of managed care information do consumers perceive as being most helpful to improve their knowledge about their managed care plan?

Study Variable

1. Consumer preferred sources of managed care information to improve their knowledge about managed care plan (survey questions 7-13).

   This variable was measured with 5-point rating scales to determine which sources of managed care information participants felt have been and would be most helpful to improve their knowledge about managed care plans. The 5-point scale for questions 7 and 8 varied from strongly disagree (1) to strongly agree (5). The 5-point scale for questions 9-13 varied from never helpful (1) to usually helpful (5).
Instrument Stability

A test-retest reliability evaluation was utilized to determine survey stability on similar population groups. Stability “...refers to the extent to which the same results are obtained on repeated administrations of the instrument” (Polit & Hungler, 1999, p. 412). During a test-retest reliability evaluation the researcher gives the same questionnaire twice to a sample group and compares the two sets of responses (Polit & Hungler). There can be some disadvantages to the test-retest method. The subjects’ responses on the post-test could be affected by the memory of their answers on the pre-test (Polit & Hungler). Post-test responses could also be affected because simply the act of taking the pre-test can cause the subject to remember, during the time between the two tests, a managed care issue that has happened. The subjects may not be as careful taking the post-test as they were the pre-test because of boredom or familiarity (Polit & Hungler).

The lay-group (n= 7) consisted of employees of a small manufacturing firm that offered a managed care health insurance for employees. The owner of the firm requested that he be allowed to provide the questionnaires to the participants due to a busy and unpredictable manufacturing schedule. The owner was given written guidelines to follow when discussing the survey with each participant. The owner was provided with one set of questionnaires for each participant and envelopes to return the completed questionnaires to the researcher. Each set of questionnaires was numbered so that the pre-test and post-test surveys could be matched at the conclusion of testing. Each participant wrote his or her name on a removable sticky-note during the pre-test and placed it on the corresponding post-test questionnaire, so that the second questionnaire could be given to the correct participant at the post-test, which was two-weeks
The participant removed the name-note before the posttest was returned to ensure confidentiality.

The registered nurse group participants (n=19) were Masters of Science in Nursing degree students who were all enrolled in one masters-level course. The nurse-group was recruited from the course attendees by asking for those who had a managed care health insurance to participate. The researcher provided the questionnaires to the participants following a similar procedure, also spaced two weeks apart.

After the completion, collection, and pairing of all of the questionnaires, statistical analysis was completed using the Statistical Package for the Social Sciences (SPSS-12). Pre-test results were statistically compared to post-test results using nonparametric measures for each question to ascertain stability. For questions 1-6, which were at the nominal level, a Chi-square test with a contingency coefficient was utilized. There were no significant differences in time 1 to time 2 responses. The contingency coefficients for questions 1-6 within the nurse group varied from .55 to .72 and the lay-group from .59 to .70. These values show a moderate to strong relationship between the two sets of scores. For questions 7-13, which were at the ordinal level, Kendall’s tau_b with a correlation coefficient was used. Correlation coefficients for questions 7-13 within the nurse group varied from .40 to .66, while the lay group varied from .43-1.00. These scores show a moderate to very strong relationship between the two scores.

In addition to statistical testing, the questionnaire was presented to a doctoral prepared nurse to determine survey clarity and content relevance. The nurse is the director at a health clinic with a client makeup of over 50% Medicaid managed care. The nurse, along with advanced practice nurses who work at this clinic, verified questionnaire clarity and content validity regarding current managed care issues.
Procedures

The sample groups were recruited from a hospital and non-healthcare related manufacturing company that both enrolled their employees in a health maintenance-type managed care insurance from the same managed care organization (MCO). The MCO-matched settings were located by contacting various companies and hospitals to determine the health insurance that they used for their employees.

Approval to conduct the study was obtained from the Grand Valley State University Human Research Review Committee. Approval was also obtained from the hospital setting through the facility’s research approval committee (see Appendix C). After approval was received, the hospital’s Human Resources department was contacted to discuss random selection of study participants. The Human Resources department expressed concern regarding participant confidentiality and citing the Health Insurance Portability and Accountability Act (HIPPA) guidelines, declined to allow a random selection of registered nurse employees who were enrolled in their managed care insurance plan.

After all attempts to assure the Human Resources department of participant confidentiality failed, a convenience sample method was utilized to obtain the registered nurse sample. The researcher met with the hospital’s nurse leaders to discuss this study. The nurse leaders agreed to email all registered nurses that worked under them regarding the study and to ask for volunteers who met the study criteria to complete a questionnaire. To attempt to prevent any bias because this would be a non-random selection, the email described the research as a study about managed care and did not use any language that was negative toward managed care. Copies of the questionnaire, along with a revised cover letter were given to the nurse-leaders. The revised cover letter had all language that could be construed as negative toward managed
care removed. Those wishing to participate in the study obtained a questionnaire package from their nurse leader. After a three-week time period, the questionnaires were collected from the chief nursing officer, who acted as the researcher's sponsor throughout the research process at the hospital site. A total of 53 questionnaires were collected, with 52 being usable. One subject had not completed the backside of the questionnaire. In light of this, the questionnaire was revised to include a reminder to complete both sides of the questionnaire. This was completed before the questionnaire was mailed to the lay consumer group.

The lay-consumer site approved this study through their benefits department and an approval letter was received from that department. The benefits department preferred to perform the random selection of employees who met the study criteria via the Excel computer program without the researcher being present. Study criteria included all non-healthcare clinic employees who were enrolled in the health maintenance type managed care health insurance that was offered as an employee benefit.

The benefits department provided the researcher with the randomly selected subjects' home addresses pre-printed on labels. These labels were immediately applied to the prepared questionnaire packages by the researcher and mailed. Every effort was made to protect confidentiality. No identifying information was included on the questionnaires. The cover letter (see Appendix A) explained this, along with the right to refuse to participate in this study and that there would not be any employer-issued reprisal for not participating. The cover letter also explained that participation in the study implied participant consent, therefore, no separate consent form was included. It was expected that there would be no physical or psychological risk to participants in this study as this was a confidential questionnaire and there were no physical interventions.
The cover letter explained the purpose of the study and included a preferred return date of 2 weeks from the mailing date. The phone numbers of the researcher and the chairperson of the Grand Valley State University Human Research Review Committee were included in the cover letter in case the subjects had any questions or concerns. The researcher carefully documented the date each questionnaire was returned. Each returned questionnaire was opened, assessed for usability, and given an identification number. These records were instrumental in observing the rate of return, determining cut off dates, and collecting the results (Polit & Hungler, 1999). Due to a low return of the lay-group questionnaires, a second mailing was initiated utilizing the same mailing list. Between both mailings a total of 46 completed questionnaires were received, of which all were usable.
CHAPTER 4
RESULTS

After the questionnaire results were collected, deemed usable, and numbered, the data were entered into Statistical Package for the Social Studies (SPSS-12) for analysis. This study was descriptive research and did not have hypotheses. Study variables were at the nominal and ordinal level of measurement. Because of these design elements, descriptive statistics were utilized. This chapter is organized according to the research questions.

Demographic Characteristics

There were 52 subjects in the nurse group and 46 subjects in the lay group. Demographic data were analyzed using numbers, percentages and a Chi-square analysis for age groups and levels of education (see Tables 2 & 3) according to the sample groups (nurse & lay). There were significant differences between the groups for age (Chi-sq = 9.69, df= 3, p= .021) and levels of education (Chi sq.= 24.79, df= 4, p=.00) (see Tables 2 & 3). Over half of both sample groups were over the age of 41 and the 41-50 age group was the modal category for both samples. It is interesting to note the nurse sample was both younger (29% 21-30 years) and older (29% 51-60 years) than the lay group. Most (72%) of the lay group were aged 31-50 years. Almost half of the lay sample (46%) had only some college or a high school degree, while 63% of the nurse group had at least a bachelor’s degree.
Table 2

*Age by Sample Groups*

<table>
<thead>
<tr>
<th></th>
<th>21-30 yrs</th>
<th>31-40 yrs</th>
<th>41-50 yrs</th>
<th>51-60 yrs</th>
<th>Total</th>
<th>Chi-sq. Sig.</th>
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<td>Nurse Group</td>
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<td>5</td>
<td>17</td>
<td>15</td>
<td>52</td>
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<tr>
<td>%</td>
<td>29 %</td>
<td>10 %</td>
<td>32 %</td>
<td>29 %</td>
<td>100 %</td>
<td>.02</td>
</tr>
<tr>
<td>Lay Group</td>
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<td>5</td>
<td>11</td>
<td>22</td>
<td>8</td>
<td>46</td>
</tr>
<tr>
<td>%</td>
<td>11 %</td>
<td>24 %</td>
<td>48 %</td>
<td>17 %</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3

*Education Level by Sample Groups*

<table>
<thead>
<tr>
<th></th>
<th>High School/Trade School</th>
<th>Some College</th>
<th>Associate Degree</th>
<th>Bachelors Degree</th>
<th>Post-College</th>
<th>Total</th>
<th>Chi-sq. Sig.</th>
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<tr>
<td>Nurse Group</td>
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<td>2</td>
<td>17</td>
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<td>7</td>
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<td>%</td>
<td>0 %</td>
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<td>33 %</td>
<td>50 %</td>
<td>13 %</td>
<td>100 %</td>
<td>.00</td>
</tr>
<tr>
<td>Lay Group</td>
<td>n</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
<td>%</td>
<td>24 %</td>
<td>22 %</td>
<td>17 %</td>
<td>26 %</td>
<td>11 %</td>
<td>100 %</td>
<td></td>
</tr>
</tbody>
</table>
Results

A primary focus of this study was to determine whether the lay and nurse samples engaged in behaviors that created difficulties in obtaining the very services they desired from their managed care plans. The behaviors that were inconsistent with the managed care plan may have reflected a knowledge deficit. Possible responses to instrument questions 1-5 were either yes or no. Data were analyzed via percentages and a corrected Chi-square. Of interest, in both groups, was the high percentage of those who reported that they had not experienced the access problems that were described in questions 1-5 (see Table 4). Emergency room use without prior authorization was reported by the highest percentage for both sample groups. Having trouble getting medical supplies was the least mentioned problem for both sample groups. This could be because medical supplies are infrequently needed.

A Chi-square analysis corrected for a 2 x 2 table was used to determine if there were statistically significant differences between the two groups. There was a significant difference (corrected Chi-square = 3.728, df = 1, p = .03) between the two sample groups for instrument question 1, which asked about emergency room use without prior authorization. The lay group was more likely to go to the ER without getting prior authorization. Of those who did go to the ER without prior authorization, only 23% of the nurse group and 10% of the lay group had to pay the ER bill. There were no other statistically significant differences between the sample groups for instrument questions 2-5 (see Table 4).
### Table 4

**Comparison of Behaviors Precipitating Access Problems**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Yes</th>
<th>No</th>
<th>Corrected Chi-sq.</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Went to ER w/o calling primary care provider first</td>
<td>Nurse 13 (25%)</td>
<td>Nurse 39 (75%)</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 21 (46%)</td>
<td>Lay 25 (54%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequence: Had to pay ER bill? *</td>
<td>Nurse 3 (23%)</td>
<td>Nurse 10 (77%)</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 2 (10%)</td>
<td>Lay 19 (90%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tried to get RX filled without the office calling insurance company first</td>
<td>Nurse 10 (19%)</td>
<td>Nurse 42 (81%)</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 5 (11%)</td>
<td>Lay 41 (89%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saw specialist without calling primary care provider first</td>
<td>Nurse 4 (8%)</td>
<td>Nurse 48 (92%)</td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 5 (11%)</td>
<td>Lay 41 (89%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequence: Had to pay specialist bill? *</td>
<td>Nurse 1 (25%)</td>
<td>Nurse 3 (75%)</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 1 (20%)</td>
<td>Lay 4 (80%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put off getting medical care because didn't know the plan rules</td>
<td>Nurse 1 (2%)</td>
<td>Nurse 51 (98%)</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 4 (9%)</td>
<td>Lay 42 (91%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tried to get medical supplies from a non-approved company</td>
<td>Nurse 1 (2%)</td>
<td>Nurse 51 (98%)</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lay 2 (4%)</td>
<td>Lay 44 (96%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Percentages based on “yes” responses

This study also sought to identify the differences between the two sample groups in the main reason they attributed as the cause of difficulties in obtaining health care services. The differences were assessed with a fixed alternative question to determine the primary reason the respondents perceived as being the cause of any access difficulties. The three possible responses included no knowledge of rules, too rushed to get prior authorization, and that incorrect information was received from a health care provider or insurance representative.
Only 52% of the nurse group and 50% of the lay group provided a reason for access difficulties. The most frequently chosen reason of both groups for difficulty obtaining health care services was that they did not know the rules of their managed care plan (see Table 5). A Chi-square analysis revealed there was no statistically significant difference between the sample groups (see Table 5). Low response rate was a limitation to this question.

Table 5

Comparison of Main Reason for Access Difficulties

<table>
<thead>
<tr>
<th>Main reason for Access Difficulties</th>
<th>Group</th>
<th>Nurse-group</th>
<th>Lay-group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didn't know rules</td>
<td>13 (48%)</td>
<td>13 (56%)</td>
<td></td>
</tr>
<tr>
<td>In a rush &amp; didn't get authorization</td>
<td>7 (26%)</td>
<td>7 (30%)</td>
<td></td>
</tr>
<tr>
<td>Given incorrect information</td>
<td>7 (26%)</td>
<td>3 (13%)</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>n = 27</td>
<td>n = 23</td>
<td></td>
</tr>
<tr>
<td>Chi-sq.</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to improve consumer knowledge about managed care, one must have access to information. This study assessed what sources of managed care information consumers perceived as being most helpful for improving knowledge about their managed care plan. A five-point rating scale was used to determine the helpfulness and usefulness of sources of information.

About half of both groups agreed or strongly agreed that they take time to read insurance information with 38% of the nurse group and 48% of the lay group reporting that they find the information helpful (see Tables 6 & 7). Talking with the insurance company was seen as the most helpful source with 85% of the nurses and 83% of the lay group rating it frequently or
usually helpful. Viewing videos was the least helpful resource with 62% of the nurse group and
47% of the lay group rating it rarely or never helpful (see Table 8). The responses were
compared for significant differences using Mann Whitney U statistic. There were no statistically
significant differences between the two groups.

Table 6

**Comparison of Agreement That Insurance Information is Read**

<table>
<thead>
<tr>
<th>Group</th>
<th>I Read Insurance Information</th>
<th>Total</th>
<th>Mann-Whitney U Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nurse</td>
<td>2 (4%)</td>
<td>5 (10%)</td>
<td>20 (38%)</td>
</tr>
<tr>
<td>Lay</td>
<td>1 (2%)</td>
<td>7 (15%)</td>
<td>14 (31%)</td>
</tr>
</tbody>
</table>

Table 7

**Helpfulness of Insurance Information**

<table>
<thead>
<tr>
<th>Group</th>
<th>Insurance Information Sent is Helpful</th>
<th>Total</th>
<th>Mann-Whit. U Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nurse</td>
<td>1 (2%)</td>
<td>5 (10%)</td>
<td>26 (50%)</td>
</tr>
<tr>
<td>Lay</td>
<td>1 (2%)</td>
<td>3 (6%)</td>
<td>20 (44%)</td>
</tr>
</tbody>
</table>
Comparison of Potential Helpfulness of Resources for Insurance Plan Information

<table>
<thead>
<tr>
<th>Resource</th>
<th>Never Helpful</th>
<th>Rarely Helpful</th>
<th>Somewhat Helpful</th>
<th>Frequently Helpful</th>
<th>Usually Helpful</th>
<th>Total</th>
<th>Mann-Whit. U Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk with ins. company</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>7 (13%)</td>
<td>32 (62%)</td>
<td>12 (23%)</td>
<td>n = 52</td>
<td>.37</td>
</tr>
<tr>
<td>Talk with HR department</td>
<td>2 (4%)</td>
<td>8 (16%)</td>
<td>22 (43%)</td>
<td>16 (31%)</td>
<td>3 (6%)</td>
<td>n = 51</td>
<td>.09</td>
</tr>
<tr>
<td>Talk with Coworkers</td>
<td>1 (2%)</td>
<td>7 (13%)</td>
<td>26 (50%)</td>
<td>15 (29%)</td>
<td>3 (6%)</td>
<td>n = 52</td>
<td>.33</td>
</tr>
<tr>
<td>Helpful source books</td>
<td>1 (2%)</td>
<td>7 (13%)</td>
<td>26 (50%)</td>
<td>13 (25%)</td>
<td>5 (10%)</td>
<td>n = 52</td>
<td>.33</td>
</tr>
<tr>
<td>View videos</td>
<td>14 (31.1%)</td>
<td>14 (31.1%)</td>
<td>11 (24.4%)</td>
<td>4 (9%)</td>
<td>2 (4.4%)</td>
<td>n = 45</td>
<td>.99</td>
</tr>
</tbody>
</table>

The questionnaire also included one open-ended question to determine what the subjects would like to change about their managed care plan. Responses were read and then categorized according to themes. Some subjects listed more than one change. The results are presented in a table format and broken down by sample group (see Table 10).
Table 10

*Consumer-Desired Changes in Managed Care Plan*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Nurse-Group</th>
<th>Lay-Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower premiums &amp; co-pays</td>
<td>9</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Prescription cost and coverage issues</td>
<td>12</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Referral process changes/provider choice</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Expand coverage for non-traditional healthcare</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve plan descriptions-more clear</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Satisfied with insurance plan/no changes</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>

**Summary**

The types of health care access problems most commonly experienced by lay and registered nurse consumers were going to the emergency room without calling the primary doctor first and prescription difficulties. The most frequently chosen reason for health care access difficulties was that they didn’t know the rules of their managed care plan. There was a statistically significant difference between the two groups in presenting to the emergency room without calling their primary doctor first with the lay group doing this more frequently. There were no other statistically significant differences between the two groups in other specific health care access difficulties, main reason for health care access difficulties, and helpful sources of managed care information to improve knowledge about managed care. Talking with the insurance company was rated as the most helpful source. Viewing videos was the least helpful.
Consumer-desired changes in managed care plans showed co-pay and insurance premium issues, prescription costs, and coverage issues at the forefront.
CHAPTER 5
DISCUSSION AND IMPLICATIONS

Discussion

The purposes of this study were to explore the issue of lack of consumer knowledge about managed care by identifying health care access difficulties that lay consumer and registered nurse managed care consumers experienced; to assess the differences between the two consumer groups in the reasons they attributed as the cause of health care access difficulties; and to determine the sources of managed care information that consumers perceive as being most helpful to improve knowledge about managed care. Nurses reporting any of the five problems listed in the questionnaire ranged from 2 to 25 %, while the lay sample group ranged from 4 % to 46 %. This shows that a higher percentage of the lay sample than the nurse sample reported behaviors that precipitated health care access problems, except in the behavior of trying to get a prescription filled with the primary care office calling the insurance company first (nurse = 19 %, lay = 11 %). Even though there was not a significant difference between the groups, one can speculate that the higher percentage of nurses reporting this behavior may be due to the fact that the nurse sample worked in a hospital setting and was not familiar with medication coverage issues. Also, nurses may have the benefit of reading about new medications in nursing literature before the general public hears about them. Because newer medications could be more costly, and therefore not covered by insurance, nurse consumers might incur a higher percentage of prescription coverage problems.
Presenting to the emergency room without calling the primary care provider first was the most common health care access difficulty that both sample groups encountered. There was a significant difference between the two groups in this behavior. This may be because the nurse group worked in a hospital and, therefore, was possibly exposed to ER issues and had more knowledge than the lay group regarding insurance and ER use. The nurse sample, because of their professional knowledge, may have been more proficient in home care of illnesses and understanding what constituted a true emergency.

Of those who had gone to the ER without calling the primary care provider first only 23% of the nurse group and 10% of the lay group had to pay the ER bill, which shows there must have been substantiation for the visit. There may have also been confusion regarding this question as plans can differ in how they charge for ER use. These differences might include charging a higher co-pay for ER use or charging a certain percentage of the cost for ER visit. Emergency room use difficulties encountered by managed care consumers were examined and found to be a problem in previous research (Young et al., 1997; Viner, Bellino, Kirsch, Kivela, & Silva, 2000). The results of the prior studies emphasized the need for managed care consumer education regarding access to emergency services.

Other access difficulties that were reported in this research included getting prescriptions filled and seeing a specialist without calling the primary care provider first. The importance of these two issues was also supported in previous research. Access to specialists and difficulties in getting prescriptions filled were frequently cited within qualitative analysis of additional commentary by Medicaid managed care consumers (Rocha & Kabalka, 1999).

To fully understand health care access difficulties within managed care, one must know why these difficulties occur. The subjects were asked to choose a main reason for health care
access difficulties that they had experienced. The reason that was chosen most frequently by both
groups was that they did not know the rules of the managed care plan. This concurs with prior
research, which also shows a general lack of knowledge about insurance plans (Nelson,
Thompson, & Davenport, 2000; Garnick et al., 1993; & Marquis, 1983). The other choices for a
main reason for health care access difficulties were “in a rush and didn’t get the authorization”
and “given incorrect information”. Seven people in each sample group reported they were in a
rush and didn’t get authorization. The questionnaire did not allow for determining if these ER
visits were emergencies. There are, of course, true emergencies where it might be life threatening
to wait for authorization. Therefore, it may be impossible to completely eradicate this behavior.

Also of interest were the total of 10 people (nurse = 7, lay = 3) who reported being given
incorrect information about their insurance plan by their health care provider or insurance
representative. Insurance plans can vary considerably in rules and coverage and it would be
unwise for health care providers and nurses to assume total responsibility for being a managed
care information source. The managed care organization should be the source of plan
information and this information must be understandable and usable (Isaacs, 1996). It is only
when they are informed and aware that consumers can take responsibility for their health care
resources (Scandlen, 2002).

This study sought to determine which sources of managed care information consumers
perceived as being most helpful. About half of the lay and registered nurse consumers in this
study did take time read information sent by the insurance company and 38 % of the nurse group
and 48 % of the lay group found that information helpful. These results were similar to Isaacs’s
(1995) results where only half of respondents said they read insurance materials given to them.
Only 40% of the respondents in the Isaacs study thought speaking directly with a insurance
representative would be helpful, but in this present research 85% of the nurse consumers and 83% of the lay consumers felt that talking with the insurance company was frequently to usually helpful. Of note is the fact that every subject rated the helpfulness of insurance information even those who reported they had not read the insurance information. This raises the question about the propensity of the subjects to read at all or whether the format of the information materials did not motivate the reader.

Studies in the literature pointed to the lack of knowledge about managed care insurance rules that consumers and registered nurses have. However, these studies only examined nurse-knowledge from a professional viewpoint. This study was unique in that it sought to compare registered nurse managed care consumers to lay managed care consumers. Because registered nurses have been expected to be knowledgeable and proficient regarding managed care issues in their professional role, it could also be expected that they would have less health care access difficulties using managed care. Since overall there were no statistical differences between the two groups, one can surmise that lay-consumers and registered nurse-consumers share a similar lack of knowledge about their managed care insurance and care access issues.

Theoretical Framework

Perceived difficulties in accessing health care, main reasons for access difficulties, and consumer preferred sources of managed care insurance information to improve knowledge emerged from the literature and this study and were associated with Orem's theories of self-care and self-care deficit (1995). Specific health care access difficulties, such as emergency department use without authorization, prescription issues, and seeing a specialist without prior authorization were reported. The main reason for these difficulties was a lack of knowledge about the managed care plan rules. These specific difficulties and the reason for the difficulties
are indicators of a care-deficit. Having useful information about managed care can be viewed as a requisite for self-care. The goal of information as a requisite for self-care is knowledge, which is a factor that contributes to and supports the self-care agency (Orem, 1995).

In this study, the self-care agency (proficiency in navigating the managed care system and its restrictions) of the subjects was not adequate and led to a care-deficit. Information from this study can be used to improve self-care agency. By determining specific access difficulties and the main reason for the difficulties, the dimensions of the deficit can be better understood. In order to provide pertinent information to consumers about managed care insurance, one must know what specific difficulties they face and create information on that. In order to make that information understandable, consumer preferred sources of information must be determined. By better meeting the information needs of managed care consumers, knowledge can be increased and self-care agency improved.

Implications

Orem's other theory, the theory of nursing systems, can assist in addressing and defining this study's implications for nursing research, practice, administration, and education. Those who have health-derived or health-associated self-care or dependent care deficits can be helped through nursing systems. *Nursing systems* include purposeful actions that a nurse does in order to know and meet care demands and to assist and secure the formation and use of care agency (Orem, 1995). Nursing systems form when nurses plan, prescribe, and provide nursing that relates to a person's capabilities and meets therapeutic care requirements. *Nursing Agency* is the capabilities and power of a person who is trained as a nurse through specialized education and clinical experiences to meet the therapeutic self-care needs of others (Orem).
Nurses use diagnostic activities to assess for actual and potential care deficits. A nurse who has learned through experience to expect specific care deficits related to certain conditions can be ready to assess for care deficits during the initial patient contact (Orem, 1995). Nursing is a specialized service in which the nurse helps the patient in meeting his or her self-care needs and allows for participation in medical care and treatment. The nurse supports and educates the patient to assist in making decisions, controlling behavior, and gaining knowledge and skills.

Nurses are educated and trained to be skilled in specialized types of helping situations (Orem, 1995). The provision and receiving of help is affected by knowledge, skills, personalities, experiences and life situations of the helper and recipient. The helper must be aware of his or her limitations and have knowledge of actions that will enable goal attainment (Orem). Research has shown that nurses can have a lack of knowledge of insurance issues and this can affect them in their professional role (Spitzer, et al., 2002; Lindeke & Chesney, 1999). With this in mind, it is important that nurses be aware of any limits in their knowledge about managed care for professional and personal reasons.

As previously stated in this study, lack of knowledge about one's managed care plan contributes to a self and dependent care deficit. It is important that there is awareness of this care deficit and to form nursing systems in order to address it. Nursing systems form when nurses plan, prescribe, and provide nursing that relates to a person's capabilities and meets therapeutic care requirements (Orem, 1995). Research on consumer knowledge about their managed care plans is important as it will help to define the deficit, determine the causes of the deficit, create interventions, and establish guidelines to measure improved knowledge level. This study sought to define the deficit by examining the prevalence of specific access difficulties, determine the
causes of the deficit by seeking the main cause of access difficulties, and to create interventions by determining helpful sources of managed care information.

Because nursing agency is dependent on the education and experiences of the nurse, there must be education in nursing schools regarding consumer access issues and health care systems so that a basic understanding is ensured. Even with only a basic understanding, the nurse can be at least be cognizant of his or her limited managed care knowledge and can refer the consumer to a more knowledgeable source. In nursing practice the awareness of a consumer's potential for managed care difficulties can lead to the nurse acting as a consumer advocate.

This study also has implications for nurses at the administration level. Nurses in administration must be aware of the lack of knowledge of managed care of both patients and the nurses they manage. If nurse administrators are aware of such access difficulties, they can then ensure that there are enough case managers to assist patients to get the care they need. Collectively, administrators can act as advocates for all managed care consumers and work with the government to voice their concerns regarding this issue. Administrators can work with Human Resource departments to keep lines of communication open. The administrators can also allow time for inservice programs about the managed care health insurance plans their employer offers to improve knowledge.

The theory of nursing systems describes the helpful actions that nurses can take to help meet care demands. By describing lack of knowledge of managed care plans as a contributor towards a care deficit one can then describe how nursing can help in addressing this deficit. Nurses can find solutions through research and use the solutions in practice, administration, and education to ensure that lay consumers and registered nurse consumers are assisted as needed and educated regarding their rights and responsibilities as consumers of managed care.
Limitations

Although this research appears to support previous research that consumers have inadequate knowledge about their health insurance, generalizability may be limited. The nurse-consumer sample group was not randomly selected from a wide nurse population, but a convenience sample. The researcher had little involvement in the email efforts to recruit the nurse group and was not present to distribute or collect the surveys. The email did not mention that this was a study to determine prevalence of managed care problems, only that this was a study of managed care health insurance. However, because participation was by self-selection, there may have been an overrepresentation of either those who were very happy with or who have had problems with their insurance.

The convenience sampling method for the nurse sample may also have caused an increase in the number of nurses with a higher level of education who participated. Those with a bachelor's degree may have had more exposure to nursing research during their schooling, and therefore, may have been more inclined to participate in this research. Education level differences may have affected perceived knowledge about managed care plans. Nurses with a higher level of education may have more knowledge about the health care system in general and be more aware of insurance coverage issues.

The setting that a registered nurse works in could potentially affect the level of knowledge about managed care plans. In the hospital setting, insurance issues are handled by business office personnel and case managers. Nurses that work in a health care provider office setting would likely have more exposure to insurance issues and could, therefore, be more knowledgeable about them. Spitzer et al. (2002) found that employment in a hospital setting had
a negative impact on knowledge about health care reforms. Therefore, the nurse group results might not be applicable to all registered nurses that are managed care consumers.

Although the lay sample was random, the participants could still choose whether or not to participate. Because of this, there may have been an overrepresentation of either those who were very happy with or who have had problems with their insurance. The lay group was less educated than the nurse sample. Because the lay site was a manufacturing facility, this was to be expected. However, almost half of the lay population had only some college education or less. Education level differences may have affected perceived knowledge about managed care plans. Therefore, the lay group results might not be applicable to all lay managed care consumers.

**Recommendations**

Because this investigation was a pilot study, further research with larger sample groups are needed to further test the questionnaire. Larger sample groups are more likely to truly represent the population of interest (Polit & Hungler, 1999). It would be interesting to compare the responses of registered nurses who work in clinics or offices to hospital registered nurses to see if there is a significant difference between these two groups in knowledge about managed care.

The researcher created the questionnaire that was used in this study to reflect managed care issues identified in the literature. For future use, there are some changes that could be made. Question 13, regarding helpfulness of videos should be discarded and perhaps replaced with helpfulness of the managed care organization’s web-site. The five-point rating scale for questions 7 and 8 should be reworded so all five points have a verbal description. This would assist in further breaking down responses. Questions 1 and 2 would benefit from changing the second part to accommodate various financial penalties for not receiving prior authorization.
This research was affected by the Health Insurance Portability and Accountability Act (HIPAA). It has been a year since the privacy rule compliance deadline on April 14, 2003 and HIPAA’s total effect on research is still unclear. Although well intentioned “…HIPAA will provide yet another barrier to the clinical research so badly needed…” (Lockwood, 2003).

Unfortunately, government issued information on HIPAA and research was difficult to interpret and utilize (U.S. Department of Health & Human Services, 2003). As more research is affected by HIPAA it is hoped that this issue will be addressed. Patient confidentiality is of utmost importance, but if research is stifled advancements in patient care will suffer.

Conclusions

Managed care and other health insurance matters are of utmost importance. Health insurance can act as a facilitator and a barrier to health care. Through this research, it was determined overall, that the registered nurse and lay managed care consumer sample groups were not significantly different from each other in the areas of health care access difficulties, main reason for access difficulties, and helpful sources of managed care information. By using Orem’s Self Care Deficit Theory of Nursing (1995), the problem of lack of consumer knowledge about managed care can be understood as a contributor to a care deficit that can be addressed through nursing agency. Through education, practice, administration, and research the nursing profession can develop and provide solutions that will facilitate the appropriate and efficient use of managed care plans to access health care.
APPENDICES
APPENDIX A

Cover Letter

Have you ever had difficulty getting the health care services you need from your managed care insurance plan? I am a registered nurse who is a graduate student at Grand Valley State University in Allendale, Michigan. I am currently finishing a project as part of the requirements for a Master of Science degree in nursing. In my practice, I have noticed that while some people are very satisfied with the services their insurance plan provides others sometimes have difficulty getting the healthcare they need. It is very important that all people are able to get the health care that they need and to make the best use of any health insurance that they have. I am conducting this study to find out if people who have managed care health insurance have had any difficulties getting the health care they need. I also want to find out how you would like your health plan to give you information about how to use it to get the services you need. The information you provide could be most helpful in improving services to customers.

You have been selected at random for possible participation in this study because your employer provides a specific managed care health insurance plan. A copy of the survey is attached. Your participation is strictly voluntary and your employer will not know whether you participated or not. Please complete the survey by answering all of the questions and returning the questionnaire in the enclosed envelope by_________. Please do not write your name anywhere on the questionnaire. This way no one will know who completed the questionnaire. Your responses will be anonymous. Your decision to complete the questionnaire will mean you have agreed to participate in the study. All of results will be reported as a whole group and no one person will be identified separately.
I truly appreciate your input and your time. If you have any questions and would like to contact me by phone, I can be reached at the following phone number_____________. The GVSU Human Research Review Committee has approved this study. If you have any questions about your participation as a subject, you may call Professor Paul Huizenga, Chairperson, Human Research Review Committee, at___________. Thank you for taking the time to support this research.

Sincerely,

Elizabeth Byma
APPENDIX B

Questionnaire

With your current insurance have you ever done any of the following:

Yes No 1) Went to the emergency room without calling your doctor first

Yes No If you answered yes to question 1, did you have to pay the bill?

Yes No 2) Scheduled an appointment with a specialist without calling your regular doctor first

Yes No If you answered yes to question 2, did you have to pay the bill?

Yes No 3) Couldn’t get a prescription filled because someone from your doctor’s office needed to call the insurance company first.

Yes No 4) Had trouble getting medical supplies (like crutches, splints or dressing supplies) because you had to go to one particular medical supply company your insurance company worked with.

Yes No 5) Put off getting medical care that you felt you or a family member needed because you didn’t know or understand how to use your insurance plan

What would you say was the main reason that you experienced any problems using your insurance plan to receive health care? CHECK ONLY ONE ANSWER

6) _________ I didn’t know the rules _________ I was in a rush & I didn’t get the authorization I needed

_________ I received incorrect information from my health care provider or insurance representative

How would you rate the following?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 7</td>
<td>1 2 3 4 5 8</td>
</tr>
</tbody>
</table>

7) When my insurance company sends out information I take time to read it

8) The information my insurance company sends me is helpful
If you have a question about your insurance plan how helpful do you think any of these would be?

<table>
<thead>
<tr>
<th>never helpful</th>
<th>rarely helpful</th>
<th>somewhat helpful</th>
<th>frequently helpful</th>
<th>usually helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

9) Reading the books that the insurance company sends to me.

1 2 3 4 5 10) Talking to someone at my insurance company.

1 2 3 4 5 11) Talking to someone in the human resource department at my work or my spouse's work.

1 2 3 4 5 12) Talking to my co-workers and friends who have the same insurance as I do.

1 2 3 4 5 13) Viewing videotapes provided by my insurance company.

What would you like to change about your health insurance?

Please answer the following questions so that we can describe the group of people who are participating in this study

14) Please circle your age group:

1. 18 to 21 years
2. 21 to 30 years
3. 31 to 40 years
4. 41 to 50 years
5. 51 to 60 years
6. Over 60 years
15) Please circle your level of education

1. High school/trade school
2. Some college
3. Associate degree
4. Bachelors degree
5. Post college
February 25, 2004

Elizabeth Byma
938 Sixth Ave
Lake Odessa, MI 48849

RE: Proposal #04-140-H

Dear Ms. Byma:

Your proposed project entitled Consumer Knowledge about their Managed Care Insurance: Comparing Registered Nurse-Consumers to Lay-Consumers has been reviewed. It has been approved as exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

This approval is with the understanding that the following changes need to be made on the Consent Sheet:

1. Change Dr. to Prof. in front of the Chairperson name
2. Complete the phone number for the Chair it is 616-331-2472.

Sincerely,

[Redacted]

Paul Huizenga, Chair
Human Research Review Committee
LIST OF REFERENCES
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